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PLANNING JUSTIFICATION REPORT

Supporting:

*A Draft Plan of Subdivision Application; and,
A Zoning By-Law Amendment Application*

On lands municipally known as:

10242 Glendon Dr. Komoka

Pt. Lot 7 S, Concession 2 County of Middlesex

MAY 2025

Prepared and Submitted by:

MAZunti Planning & Sifton Properties Limited

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APPENDICIES LIST

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Appendix B: Proposed Zoning Layouts and Requested Provisions

Appendix C: Servicing and Stormwater Management Report

Appendix D: Complete Policy Review

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Appendix F: Noise Exceedance Requiring Mitigation

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All correspondence pertaining to the accompanying applications should be directed to:
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1.0 INTRODUCTION

This Planning Justification Report (PJR) is submitted by Sifton Properties, for the property located at 10242 Glendon Drive Komoka, Ontario and found within the planning jurisdiction of the Municipality of Middlesex Centre and further, Middlesex County.

The subject property is legally known as being located in Komoka. However, due to the divide of Kilworth and Komoka in the Municipality's Zoning By-law, geographical references can be made to both villages. Regardless, where there are discrepancies in its municipal location, the legal address of Part of Lot 7, Concession 2 (Geographic Township of Lobo) in the Municipality of Middlesex Centre, County of Middlesex prevails.

This report is being submitted to support a Draft Plan of Subdivision, attached as *Appendix A*, along with an amendment to the existing Zoning By-law for these lands. May it also be noted that a conceptual plan has been created for the purposes of realistically representing what could possibly be built on Blocks 17-20 (on attached Draft Plan of Subdivision), along with accurately selecting appropriate zoning to support the vision for this development. This said, what is shown for the purposes of the Zoning By-Law Amendment is only conceptual in nature. Until such time as Site Plan applications are filed on individual blocks, all plans are subject to change based on market demand.

At this time, a Draft Plan submission is being made to define the low-density residential lots, future street fronting townhouses, creation of future residential and commercial blocks, internal road network, connection points, parkland and define applicable setbacks from constraint features affecting the site. This Planning Justification Report has been created to justify approval of the Draft Plan, as presented, based on its compliance with provincial and local policies.

With regard to the Zoning By-law amendment, Sifton is proposing the following amendments to support the residential development on this parcel, with a focus on promoting housing affordability, a mix of housing forms and a mix of supportive land uses.

1. To allow for reduced lot frontage, lot area, lot depth and building setbacks.
2. To allow for an increase in lot coverage.

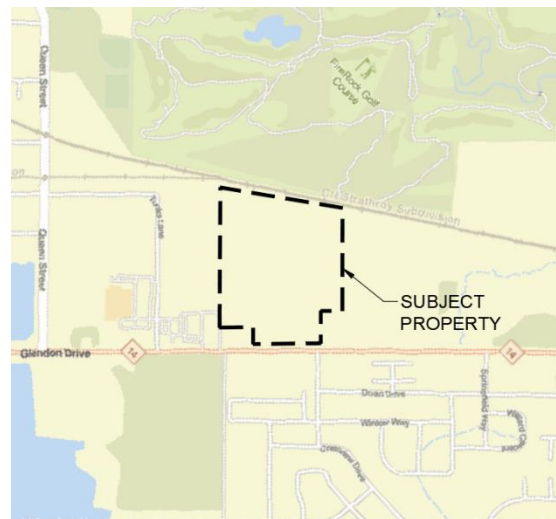


Figure 1 – Key Map

3. To allow for increased building heights and densities, thus creating more compact and affordable communities.
4. To allow for smaller minimum floor areas, further permitting smaller economically efficient lots/units.
5. To permit three-unit blocks for townhouse dwellings.
6. To permit retirement, nursing home and assisted living uses on Blocks 17-20.

A full list of the special provisions being requested is attached as Appendix B.

2.0 BACKGROUND AND CONTEXT

2.1 Geographic Context

The subject site is located in the settlement area known as Komoka, and municipally referenced as 10242 Glendon Drive, Komoka, Ontario. Alternatively, legally described as Part Lot 7 Concession 2, Geographic Township of Lobo, in the Municipality of Middlesex Centre, County of Middlesex.

The subject lands, as shown in Figure 1: “Key Map”, are irregular in shape with an area of 18.06 ha (+/- 44 acres), inclusive of approximately 220m of frontage onto Glendon Drive.

2.2 Planning Context

The subject site is currently designated as Village Centre and Low Density Residential on Schedule A-2 - Komoka-Kilworth Settlement Area & Secondary Plan (see Figure 2). A Future Collector Road is identified from east to west, as well as from Glendon Drive to the future collector road. A Multi-use Trail is also identified along the rear boundary of the site, adjacent to the railway line. Schedule A-2 also includes an aggregate overlay on the subject site.

There are no natural heritage or natural hazard features identified on Schedules B and C.

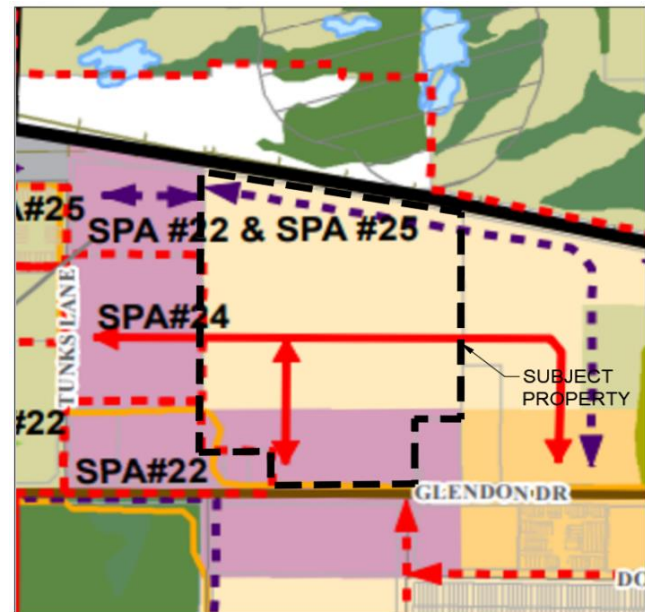


Figure 2 - Official Plan Designations on 10242 Glendon Drive



Policies pertaining to Village Centres are found in Section 5.3.2 and 5.7.3 of the Official Plan. In general, Village Centres are to function as community gathering places with unique identities and characteristics, as well as providing for daily and weekly retail and service needs for the settlement and surrounding area. Mixed use buildings and compact form are encouraged. A wide range of uses, including retail, residential, restaurants, entertainment, recreational and institutional are permitted. There are no stipulations as to height or density in the Village Centre designation, however, consistent building massing, scale, height and setbacks to promote a pedestrian-friendly streetscape are to be provided.

Surrounding Official Plan designations include Village Centre along the full western boundary, Low and Medium Density Residential to the east and Village Centre to the south. As such, the subject site is at the core area of Komoka that is intended for higher intensity, mixed-use, compact development, especially given its immediate proximity to existing commercial uses and the Komoka Wellness Centre.

The subject site, as well as lands to the east, are currently zoned as Existing Use (EU). Lands to the west are zoned EU for the northerly portion and Village Commercial (C1-12, C1-11) for the southerly portion, where existing commercial uses, including Foodland, LCBO and other retail and associated uses are located. Lands to the south are also zoned Village Commercial (C1-15*h-7) which permits a broad range of commercial, and service uses, and Urban Residential Third Density (UR3-9) which permits multi-unit and apartment forms of housing with densities up to 50 UPH.

Additional detail pertaining to specific policies and adherence is found in Section 5 of this report, as well as [Appendix D- Complete Policy Review](#).

2.3 Surrounding Land Uses

This block is bound by Glendon Drive to the south, an existing church and future residential to the east, three existing low-density dwellings and commercial uses to the west and an existing rail line to the north.

The subject lands are located on the north side of Glendon Drive, between Coldstream Road and Tunks Lane, and will encompass the northerly extension of the existing, lighted, Crestview Drive and Glendon Drive intersection. The land is currently vacant and still active farmland.

The site has gradual fall and positive drainage, with the largest natural draw from northeast to southwest at elevations from 251.6 masl to 244.7 masl. There are, however, pockets of lower elevations adjacent to the CN Rail property, as well as along the Glendon Drive frontage.

Adjacent land uses include the following:

- North - Rail line, golf course;
- East - Agricultural, church, future residential;
- South - Glendon Drive, existing single and multi-family residential;
- West - Agricultural, Masterfeeds facility and commercial.

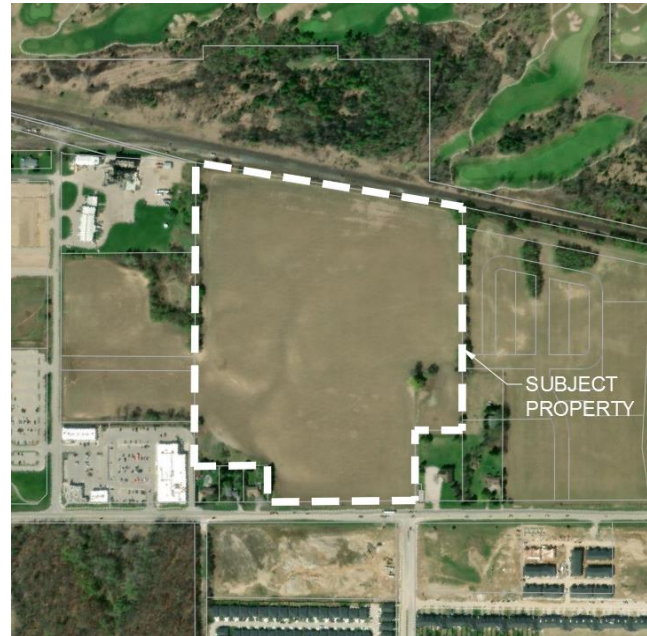


Figure 3 – Aerial Map

2.4 Existing Conditions

The subject lands are currently being used solely for agricultural purposes (as shown from below images) and only have some minor vegetation present, being some boundary vegetation, as well as some landscaped space immediately behind the low-density dwellings fronting Glendon Drive.

The following are photos of the site and its surroundings.



View to the north from Glendon Drive (Above)



View north at intersection of Crestview Drive and Glendon Drive



View east From Tunks Lane at surrounding commercial development



View east from Tunks Lane at future Street 'B' extension

3.0 PROPOSED DEVELOPMENT

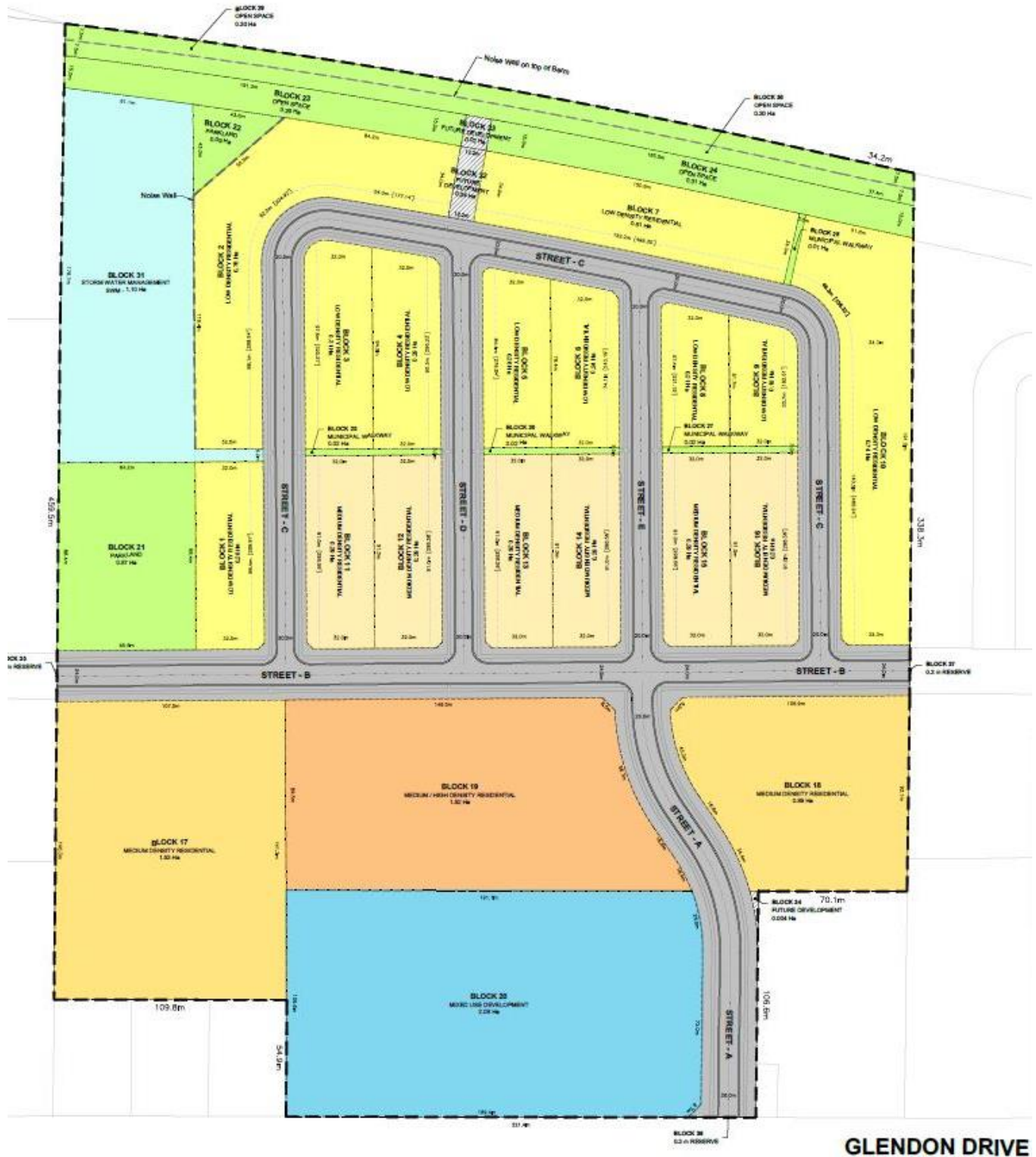


Figure 4 – Proposed Subdivision Plan



3.1 Proposal Summary

The proposed draft plan of subdivision, as shown in Figure 4, consists of the following:

- Sixteen (16) low to medium density residential blocks north of Street 'B' as shown on the submitted Draft Plan, with potential for 168 single, semi and/or street townhouse units. Frontages in this area, (outlined as Zone 1 in Appendix B- Proposed Zoning Layouts and Requested Provisions) are proposed to start at 10.5m for a single detached lot and a minimum of 6 m for street townhouses. Lot depths range from 30 to 34 meters, which is consistent with typical development standards.
 - o The requested lot frontages are intended to accommodate smaller and more affordable building footprints, thus making strides towards an affordable and attainable freehold housing supply in Komoka.
- Two (2) medium density blocks, being Blocks 17 and 18, have been shown on the submitted plan, with the intention to provide various residential housing types and ownership opportunities.
 - o This type of housing is envisioned to provide an appropriate transition between the commercial to the south and low density to the north, while also being compatible with the existing low density residential fronting Glendon Drive.
 - o To provide future flexibility, the Zoning By-Law Amendment also proposes that residential uses, such as retirement communities, long-term care facilities, and nursing homes also be permitted in these locations. These types of residential uses are appropriate in proximity to commercial and mixed-use style developments and create an attractive and functional environment for the aging population of the future community.
- Two (2) high density/mixed use blocks, being Blocks 19 and 20.
 - o It is intended that primary commercial uses would be focused around the intersection of Street 'A' and Glendon Drive in Block 20 (complying with the Kilworth-Komoka Secondary Plan), with possible office, retirement, long-term care facilities, nursing homes and other lower traffic generating uses targeted in Block 19. Both blocks are envisioned to host the highest density of residential units. See Appendix B- Proposed Zoning Layouts and Requested Provisions regarding specific details pertaining to Zone 3 (Block 19) and Zone 4 (Block 20).

Blocks 21-30 as shown on the submitted Draft Plan incorporate parks and open space areas as follows:

- Blocks 21 and 22 are to be dedicated as a portion of the required 'parkland dedication as outlined in the Planning Act.



- Blocks 23 and 24 are being created and zoned as a linear park block for trail connectivity. These blocks will also function as a portion of the noise and vibration mitigation measures between the Canadian National Railway corridor and the proposed residential development.
- Blocks 25 to 28 are proposed to be municipally owned pedestrian walkways to prioritize connectivity and pedestrian movement throughout the site.
- Blocks 29 and 30 are being created and zoned to accommodate the required berm and acoustical barrier, as determined through the Dillon Consulting Noise and Vibration Study for this property.
 - o As outlined in the proposed Zoning By-Law Amendment, and reflected on Zone 1 layout in Appendix B, ownership of these blocks is not yet known, based on potential use of these lands for utility purposes.
 - At this time, both solar and geothermal renewable energy are being contemplated within the limits of this Plan. It was contemplated that this would be a preferred location for ground mounted solar arrays. To this, a full site exploratory procedure, as well as necessary financial viability reporting must be completed prior to understanding the potential opportunity that could be leveraged through this infrastructure. This privately owned utility would give the residents within this plan a green and potentially more affordable option for heating, cooling and powering their residences. These detailed studies have been paused until confirmation of block limits have been confirmed and approved. For these reasons, we suggest that ownership of these blocks remain undetermined until approval of the Plan and registration of the development agreement.
- Block 31 is dedicated to stormwater management and is strategically located in the northwest corner of the site to provide separation from the 'stationary noise source' as referenced in Dillon's Noise and Vibration Assessment, May 2025.
- Blocks 32 and 33 are temporarily being reserved for street frontage to Blocks 29 and 30, pending further utility investigation. If this does not prove to be feasible, it is the expectation that Blocks 29 and 30 will be municipally owned, Block 33 will revert to a continuation of linear trail and Block 32 will revert to a low-density residential lot.

Parkland dedication requirements for development applications shall be 5% of the overall subdivision area (or the equivalent cash in lieu), in compliance with the Planning Act. Based on the developable area of the proposed subdivision plan being approximately 18.06 hectares, it is calculated that approximately 0.9 hectares of land, equivalent cash in lieu, or a combination of the two that is acceptable to the Municipality of Middlesex Centre will be required. The draft



plan identifies Blocks 21 and 22 as parkland, totaling 0.67 ha. In addition, Blocks 23 and 24 totaling 0.6 ha, will incorporate a multi-use trail in accordance with the Secondary Plan. As these blocks help fulfill the municipality's recreational objectives, they should receive parkland credit in full or in part to meet the overall parkland dedication requirements. It is requested that the municipality accept Blocks 23 and 24 for parkland purposes to reflect their intended recreational use.

The remainder of the land area, as shown on the Plan, consists of internal right of ways, reserves and future development blocks. The proposed internal road layout focuses on creating an efficient street pattern that provides good connections to the surrounding road system and future development to the east and west. It includes four primary north-south connections and two secondary east-west connections. All proposed streets have a minimum 20 m right of way (ROW).

As visual reference to any of these blocks, see [Appendix A- Proposed Draft Plan of Subdivision.](#)

3.2 Description of the Requested Zoning By-Law Amendment

The site is currently zoned Existing Use (EU). The permitted uses of the site are existing uses as of the date of the passing of the Zoning By-law.

A zoning by-law amendment is being submitted with the draft plan application to accommodate the proposed residential uses. Requested residential zoning for the site includes special provisions, which will address setbacks, frontages and other zoning regulations to provide greater flexibility for building positioning, accommodate market demands and maximize efficient use of land.

A mixed-use block is proposed adjacent to Glendon Drive (Block 20), with a mix of first floor commercial and medium rise residential. Maximum building heights and block densities for Blocks 17-20 are being requested with this application, up to a maximum of 10 stories and 150 units per hectare along the frontage of Glendon Drive.

Parks and Recreation (PR) and Open Space (OS) zones are proposed to be applied to the parks and pathway blocks, as well as to the buffer area between the existing railway and the proposed development. The on-site stormwater management facility is proposed to be zoned OS as well.

It is noted that there currently is no reference to stacked back-to-back townhouse dwellings in the existing Zoning By-law No. 2005-005. Based on our interest in promoting a mix of uses and building forms, as well as encouraging more affordable product, we would like to include this dwelling form as part of the requested amendment. Based on some research of other municipalities that include this within their by-laws, we would like to define this use as:

“Stacked, Back-to-Back Townhouse Dwelling” meaning, any dwelling unit within a building containing four or more dwelling units divided by horizontal and vertical common walls, above grade, including a rear common wall.

See Figure 5 of the overall proposed zone configuration based on the application submitted. The requested zoning layouts, along with full details of all proposed special provisions, are attached as Appendix B- Proposed Zoning Layouts and Requested Provisions.

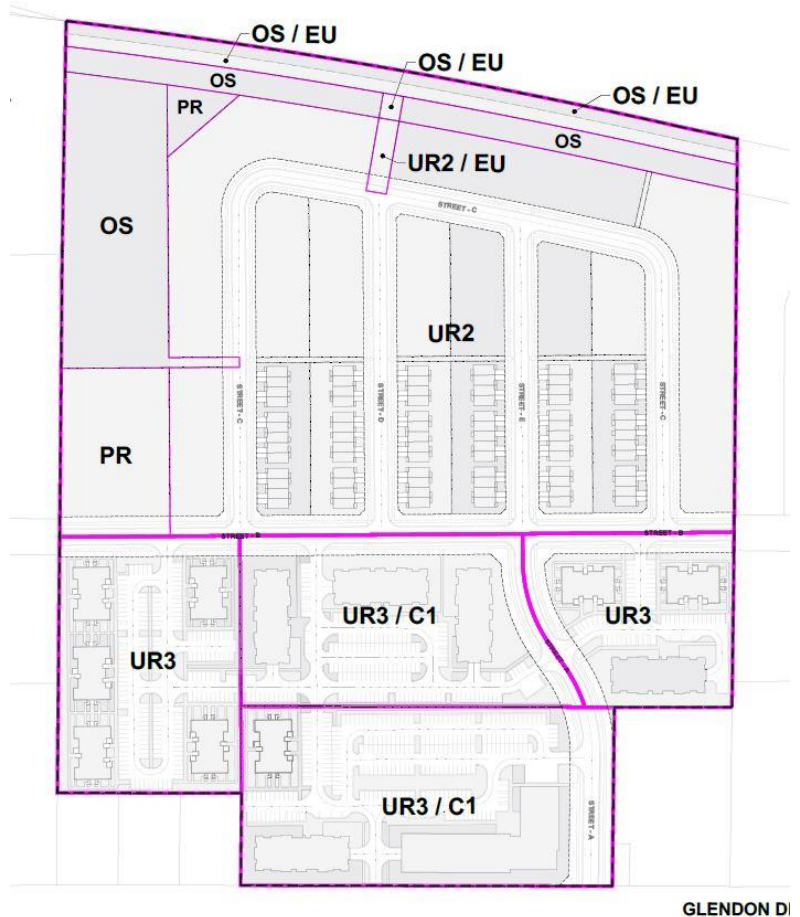


Figure 5 – Proposed Zoning

4.0 SUPPORTING INFORMATION

4.1 Noise & Vibration

A Noise and Vibration Assessment was completed by Dillon Consulting Limited (“Dillon”) for the site based on the subject property being located to the south of a Canadian National (CN) Railway and being located north of Glendon Drive. Stationary noise assessment was also conducted for the adjacent Masterfeeds facility. This assessment was prepared in accordance with the Ontario Ministry of the Environment, Conservation and Parks (MECP) guidelines and requirements.

The transportation noise assessment concluded that the noise impacts on the proposed development can be mitigated through enhanced building materials, glazing requirements, warning clauses and a series of acoustic barriers and a berm for the properties adjacent to the railway. Most notably, based on the results obtained from noise modeling adjacent to Masterfeeds, an animal food manufacturer, a Class 4 Designation is being sought in areas outlined on Figure 6.

In Figure 6, the shaded area represents areas impacted by noise levels exceeding 55 decibels and requiring physical mitigation. For further detail on how this was modeled and the mitigation to be provided, see Dillon’s Noise and Vibration Assessment, as submitted with the Draft Plan Application.

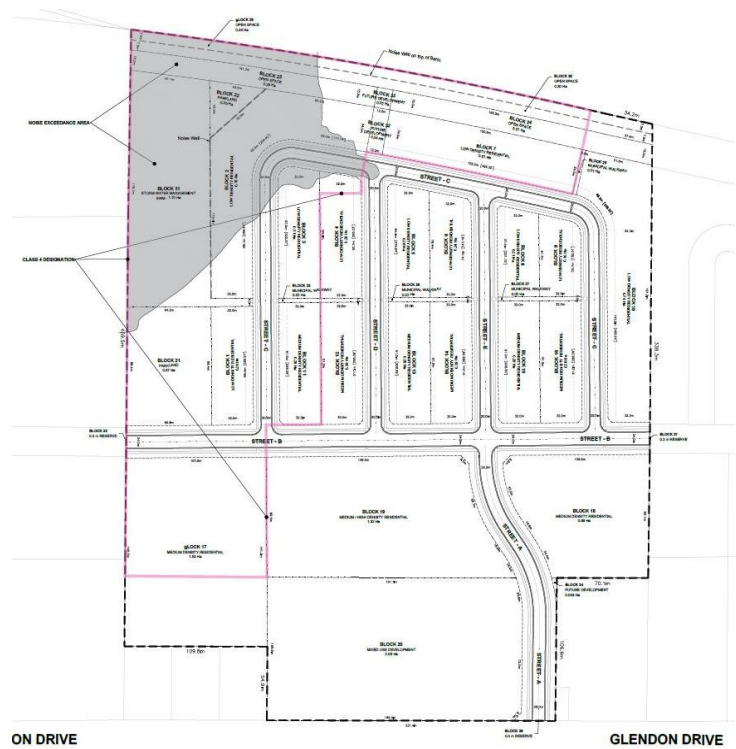


Figure 6 – Noise Exceedance

To address vibration mitigation requirements, Dillon has recommended that all building footprints be located at a minimum distance of 40m from the railway. The Plan currently shows a 30m buffer between residential and the CN Rail block between Blocks 29, 30 and 23, 24. In addition to this, it is requested that a site-specific by-law be created requiring a 10m rear yard setback on the northerly portions of Blocks 2 and 10 where they abut Blocks 23 and 24, as well as all of Block 7. All other low density residential would follow suggested setbacks as shown in the table on the submitted Zone 1 layout.

It is suggested that a noise consultant review lot plans prior to construction for site specific control and recommendations.

4.2 Traffic

A Traffic Impact Assessment was conducted by Stantec for the proposed development and the report sets out recommended measures to support this application. Below is a summary of the report’s findings.

Through Middlesex County's long term transportation strategy, Glendon Drive (and more specifically, the Crestview Drive intersection) is currently part of a road widening initiative to enhance mobility and public safety. Work in this study area is anticipated to be completed by 2029 based on the ESR construction schedule, and hence, is expected to be completed prior to full build-out of this proposed development. As part of this widening, an eastbound left-hand turn lane is to be established at this intersection.

The proposed primary access for this development ("Street A") coincides with the existing signalized intersection at Crestview Drive and it is proposed that final design of Street 'A' at Glendon Drive mirror Crestview, being a three-lane cross section, with center median, restricting secondary entrances into Block 20 to right in, right out vehicular movement; thus, reducing congestion in the area of this primary intersection. See Figure 7 for a visual reference to the lane distribution being suggested.

For a complete list of recommendations pertaining to this proposed plan of subdivision, refer to the Traffic Impact Assessment submitted with the Draft Plan.

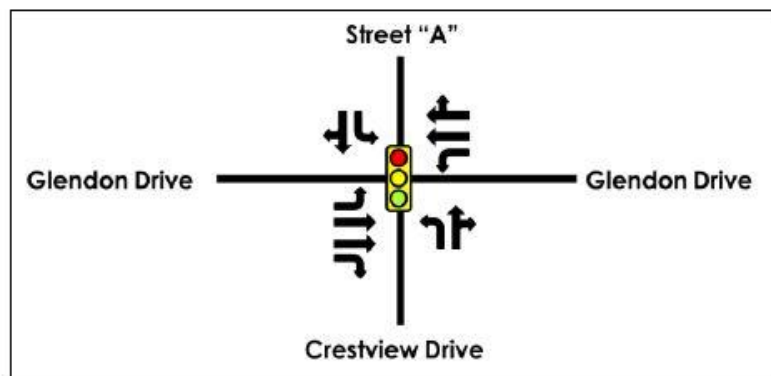


Figure 7 – Proposed Lane Distribution at Glendon Drive

4.3 Geotechnical

A Preliminary Geotechnical Investigation was undertaken by EXP Services Inc ("EXP") for the previous landowner. This report has been updated to reflect the current concept and has been submitted as part of this Draft Plan submission. The purpose of the investigation was to examine the soils on the property by digging a number of boreholes.

To aid in a complete review of planning policy, a subsequent letter was completed by EXP speaking directly to the significance and viability of extracting the aggregate resource identified in the OP - Schedule A-2 overlay on the property. This letter can be found as [Appendix E-Aggregate Resources Assessment](#).

Geotechnical comments and recommendations are provided in the full geotechnical report which has been submitted in conjunction with these applications. Based on this being a preliminary investigation, the report recommends that further investigations be completed at the detailed engineering design stage.



4.4 Natural Heritage

It is noted that no significant environmental features are present on the subject property, though it is adjacent to a significant feature on the north side of the CN Rail land. A scoped Development Assessment Report is being completed to identify any impacts to this feature by the proposed development. A smaller feature, as identified through the Middlesex Natural Heritage System Study in 2014, is also being looked at for any localized significance and impacts from the proposed development.

It was confirmed by the municipality that this study was not required at the time of submission and that it would be a future condition of approval.

4.5 Archaeological

A Stage 1 and 2 Archeological Assessment was completed on this property by Lincon Environmental Consultants in June 2023. It concluded that based on only one findspot being identified, no further study is required for this property.

4.6 Servicing

Sanitary

Per the sanitary Drainage Area Plan prepared for the Kilworth Heights West Subdivision (ENG PLUS 2018), the property located at 10242 Glendon Drive was accounted for as tributary to the 300mm sanitary sewer system along Crestview Drive. Based on the anticipated population for the subject lands of approximately 1696 persons, as assumed in the Servicing Report, the allocated population of 1781 persons would have sufficient sanitary capacity for the development.

It is noted that should all blocks be developed at their maximum density, a population greater than 1781 persons, as allocated in the previously completed sanitary drainage area plan, could result. However, it is highly unlikely that all areas of the subdivision will be maximized, as market demand and smaller populations for some uses (e.g. apartments, nursing homes) are likely to reduce final population assumptions. The proposed zoning is necessary to provide flexibility for future development, however, if any sanitary capacity concerns materialize, they can be addressed at the site plan approval stage for the individual multi-unit and mixed-use blocks.

Water

Water is available to this property from an existing 300mm watermain on Glendon Drive. Understanding the size of the project and anticipated number of units, a looped service will be



required; possibly temporarily through a private block fronting Glendon, until such time as a secondary road connection is constructed through an adjacent property to the east or west. It is noted that no oversizing is required to support this development.

For further information regarding site servicing, please refer to the Servicing and Stormwater Management Report found as Appendix C.

4.7 Stormwater Management

The stormwater strategy for the site is to capture the majority of the runoff from the site and direct it to a proposed dry stormwater pond in the northwest corner of the property. Internal grading will be designed to direct minor system runoff to an internal storm sewer system, while overland flow routes will be provided in the case of major storm events. To this, the proposed SWM system will provide both quality and quantity control for the entire property.

For further information regarding the proposed stormwater management strategy, along with presupposed stormwater design criteria, please refer to the Servicing and Stormwater Management Report found as Appendix C.

4.8 Pre-Consultation Summary

This section is to confirm how key points from the Pre-Consultation notes dated December 19, 2024, have been satisfied.

Complete Application Requirements

Noise and Vibration analysis from Masterfeeds and Glendon Drive- Satisfied. See Noise and Vibration Assessment submitted with the Draft Plan.

Archeological Assessment- Satisfied. See Stage 2 Archeological Assessment submitted with the Draft Plan.

Urban Design Guideline Policy Review- Satisfied. See Policy Analysis, Section 5.0 below.

Traffic Impact Study- Satisfied. See Traffic Impact Assessment submitted with Draft Plan.

Functional Servicing Report- Satisfied. See Servicing Report submitted with Draft Plan.





Ecological Impact Study (condition of approval based on confirmation from Middlesex Centre correspondence)- Satisfied. Ecological study has begun and will be submitted prior to final approval of the development.

Hydrogeological Impact Assessment (condition of approval based on confirmation by Middlesex Centre)- Satisfied and underway. Hydrological reporting is to be submitted prior to final approval of the development.

Geotechnical Report- Satisfied. See Preliminary Geotechnical Report submitted with the Draft Plan

Satisfying General Municipal Comments

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| <u>Design</u> | <p>Conceptual layouts for Blocks south of Street B have been designed to demonstrate an accurate Zoning By-Law Amendment (ZBA) Application and associated special provisions.</p> <p>See 4 zoning layouts submitted with the ZBA for conceptual building placements. Attached as <u>Appendix B</u>.</p> |
| <u>Design</u> | <p>Conceptual layouts took the required 1.5 resident spaces per unit, plus 0.15 visitor parking spaces into consideration when being designed. In most instances, this requirement is met with the understanding that underground parking will be required to support the densities being requested.</p> <p>NOTE: These layouts are conceptual and will change up until the time a Site Plan Application is submitted with the municipality for approval. It is requested that details of site-specific layouts be delayed until the Site Plan stage, to offer the greatest flexibility based on market demand at the time of submission.</p> |
| <u>Transportation</u> | <p>An 18m road widening from the centerline of Glendon Drive has been accounted for on the submitted Draft Plan.</p> |





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| <u>Transportation</u> | Street A has been purposefully located opposite the existing Crestview Drive, based on municipal comment. |
| <u>Transportation</u> | A future mid-block access to support the future commercial use proposed on the corner of Street A and Glendon Drive has been analyzed by the traffic consultant and found to have no negative impacts to existing and future traffic movement. References to this text can be found in the Traffic Impact Analysis submitted with the Draft Plan. |
| <u>Transportation</u> | The secondary collector, Street B, has been updated to reflect the 24m right-of-way width as outlined in the Transportation Master Plan. |
| <u>Utility</u> | Consultation has been undertaken with Enbridge Gas regarding the facility immediately east of the Crestview intersection along Glendon Drive. It has been confirmed that there is no impact to the development from this facility. |
| <u>Stormwater</u> | Access to the stormwater block has been added fronting Street C, based on municipal concern. It is proposed that this access be shared between the stormwater block and parkland block. |
| <u>Stormwater</u> | Based on no outlet to Tunks Lane, the stormwater management pond was sized to accommodate a longer storage capacity, along with a higher percentage of infiltration opportunities than typically required. As a result, this pond has been sized to accommodate only stormwater from this development. NOTE: No stormwater is proposed to leave the site, nor should it be accounted for in the regional facility located at Komoka Road and Glendon Drive. |
| <u>Sanitary</u> | Analysis has been carried out regarding sanitary servicing of the development. It is noted that mainline sanitary sewers are required along Street A to Glendon Drive to service this development. |





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| | For full details, see the Functional Servicing Plan submitted with the Draft Plan. |
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For a complete list of the previously submitted Pre-Consultation notes, please find them attached as Appendix G- Record of Pre-Consultation.

5.0 POLICY ANALYSIS

The proposed development is subject to provincial, county and municipal policies as well as Middlesex Centre urban design guidelines. Following is a summary of conformity with the key applicable policies. A detailed review of all corresponding policies has been attached as Appendix D- Complete Policy Review.

5.1 Planning Act

The Province of Ontario has made several changes recently to the Planning Act to implement its goal of building 1.5 million homes by 2031. These changes include the More Homes Built Faster Act, 2022 (Bill 23) and the Cutting Red Tape to Build More Homes Act, 2024 (Bill 105); in both cases these amendments sought to increase the number of housing units built in Ontario in a timely manner by removing barriers to development approvals.

5.2 Provincial Planning Statement

As of October 20, 2024, the new Provincial Planning Statement (PPS) came into effect. "The Provincial Planning Statement provides policy direction on matters of provincial interest related to land use planning and development. As a key part of Ontario's policy-led planning system, the PPS sets the policy foundation for regulating the development and use of land province-wide, helping achieve the provincial goals of meeting the needs of a fast-growing province while enhancing the quality of life for all Ontarians." The 2024 PPS places a strong emphasis on providing a wide range of housing opportunities in a more compact form, along with the wise and efficient use of infrastructure and resources. Key applicable policies include the following.

Section 2.1 of PPS - Planning for People and Homes

4. *To provide for an appropriate range and mix of housing options and densities required to meet projected requirements of current and future residents of the regional market area, planning authorities shall:*





- a) *maintain at all times the ability to accommodate residential growth for a minimum of 15 years through lands which are designated and available for residential development;*
 - b) *maintain at all times where new development is to occur, land with servicing capacity sufficient to provide at least a three-year supply of residential units available through lands suitably zoned, including units in draft approved or registered plans.*
6. *Planning authorities should support the achievement of complete communities by:*
- a) *accommodating an appropriate range and mix of land uses, housing options, transportation options with multimodal access, employment, public service facilities and other institutional uses (including schools and associated childcare facilities, long-term care facilities, places of worship and cemeteries), recreation, parks and open space, and other uses to meet long-term needs;*

Section 2.2 of PPS - Housing

1. *Planning authorities shall provide for an appropriate range and mix of housing options and densities to meet projected needs of current and future residents of the regional market area by:*
 - b) *permitting and facilitating;*
 1. *All housing options required to meet the social, health, economic and wellbeing requirements of current and future residents, including additional needs housing and needs arising from demographic changes and employment opportunities;*
 - c) *promoting densities for new housing which efficiently use land, resources, infrastructure and public service facilities, and support the use of active transportation;*

Section 3.3 of PPS - Transportation and Infrastructure Corridors

3. *Planning authorities shall not permit development in planned corridors that could preclude or negatively affect the use of the corridor for the purpose(s) for which it was identified.*

New development proposed on adjacent lands to existing or planned corridors and transportation facilities should be compatible with, and supportive of, the long-term purposes of the corridor and should be designed to avoid, or where avoidance is not possible, minimize and mitigate negative impacts on and adverse effects from the corridor and transportation facilities.

Section 3.6 of PPS - Sewage, Water and Stormwater

2. *Municipal sewage services and municipal water services are the preferred form of servicing for settlement areas to support protection of the environment and minimize potential risks to human health and safety. For clarity, municipal sewage services and*



municipal water services include both centralized servicing systems and decentralized servicing systems.

Section 4.5 of PPS - Mineral Aggregate Resources

5. *In known deposits of mineral aggregate resources and on adjacent lands, development and activities which would preclude or hinder the establishment of new operations or access to the resources shall only be permitted if:*
 - a) *resource use would not be feasible; or*
 - b) *the proposed land use or development serves a greater long-term public interest; and*
 - c) *issues of public health, public safety and environmental impact are addressed*

Section 5.1 of PPS - General Policies for Natural and Human-Made Hazards

1. *Development shall be directed away from areas of natural or human-made hazards where there is an unacceptable risk to public health or safety or of property damage and not create new or aggravate existing hazards.*

Policy Analysis

The proposed draft plan and ZBA is consistent with the PPS as follows:

- It is intended to provide for a mix of housing types and densities, in a more compact form than currently exists in the municipality, thereby making efficient use of land and infrastructure. This also supports PPS policies pertaining to energy conservation and climate change.
- The proposed housing mix will contribute to affordability through the inclusion of apartments and other attached forms of housing and assist in alleviating the housing crisis.
- Reduced lot frontages and proposed densities up to 150 units/hectare in appropriate areas promotes compact form, assists in affordability and will contribute to the required 3-year supply of residential units and 15 years minimum accommodation of residential growth.
- The proposed development includes a park and multi-use trails as well as retail/commercial uses in close proximity to existing recreation and retail uses. In conjunction with the residential diversity, this helps to create a complete community.
- The requested draft plan and ZBA would significantly increase the efficiency of the land use and municipal/county services and roads.
- Full municipal servicing and stormwater facilities are proposed for the development;



- Noise and vibration mitigation measures are proposed to address the impacts of adjacent road, rail and industrial uses.
- There are no natural heritage or hazard concerns with the proposal. The proposal is for the development of a vacant site, which is abutting an arterial road, and is also bounded by new housing development to the south.
- Aggregate resources are not of sufficient quality or quantity for extraction.

5.3 County of Middlesex Official Plan

Middlesex Centre is located within the County of Middlesex. As shown on Schedule A of the County OP and being that the property is located in Komoka/Kilworth, the site is identified as a Settlement Area, and further as an Urban Area under Section 2.3.2. Urban areas are intended to accommodate future growth on full municipal services.

Housing policies, as described in Section 2.3.7, support a wide variety of housing types, sizes and tenures to meet demographic and market requirements. Intensification, alternative forms of housing for special need groups and housing accessible to low and moderate income households are all supported by the County, with a requirement that 20 percent of all housing be affordable. New development in Settlement Areas is encouraged to proceed by plan of subdivision, as per Section 3.2.2.

No features are identified on the subject site on Schedule C (Natural Heritage), Schedule D (Natural Hazard Areas) or Schedule F (Source Water Protection). The County OP does identify the site as being within an area of aggregate resources on Schedule E.

Policy Analysis

The proposed draft plan and ZBA comply with the County of Middlesex Official Plan as follows:

- The site is located within a Settlement Area.
- Development will occur through a plan of subdivision and on full municipal services.
- The proposed development provides for a wide variety of housing types and tenures, with a higher level of intensity than currently exists in the area, thereby contributing to the affordable housing targets of the County.
- Proposed development adjacent to the arterial is mixed use, including commercial and higher-density residential.



- Aggregate resources on the site are not of sufficient quantity or quality for extraction.

5.4 Municipality of Middlesex Centre Official Plan

The Middlesex Centre Official Plan “is intended to provide for the orderly growth and development of the Municipality and provide guidance in the management of change”. It provides more detailed guidance than the County OP and addresses local issues, unique characteristics and more specific goals and objectives. Generally, goals, objectives and policies of the OP seek to:

- Establish urban densities to reduce the amount of land required to accommodate population growth;
- Create attractive, functional and livable settlement areas;
- Promote cost effective development and land use patterns;
- Revitalize the Municipality’s Village Centres as the centres of commercial activity;
- Provide an efficient and safe transportation network.

Section 5.7 of the OP contains the Komoka-Kilworth Secondary Plan which provides more detailed policies that are particularly applicable to the subject site and its proposed development. As noted previously, the subject site is designated Village Centre for the southerly portion and Residential for the northerly portion. Lands to the south of Glendon Drive are designated Village Centre as are lands to the immediate west in their entirety. A future collector road accesses the site from Glendon Drive and also traverses the entirety of the site from east to west.

The draft plan of subdivision and zoning by-law amendment propose mixed use and medium to higher density residential uses between Glendon Drive and the future collector road. Preliminary concept plans and the associated ZBA anticipate the potential for mixed-use buildings with commercial on the main floor and apartments above, as well as apartments, stacked townhouses, retirement or nursing homes, and other forms of multi-unit dwellings. Lands to the north of the collector road anticipate the potential for single family and street townhouse built forms.

Following is a summary of key Secondary Plan policies pertaining to Village Centre and Residential designations. More detailed coverage of all applicable policies and associated analysis is included in Appendix D.

Applicable Policies

5.7.1 Komoka-Kilworth Secondary Plan Goals

The following goals apply to the land shown on Schedule A-2 in addition to the Municipal General Principles of section 1.8 and other goals identified in this Plan:

- a) To establish a balanced mix of land uses serving key functions of a complete and vibrant community, including housing, local businesses, employment, schools, recreation facilities, and parks and open space;
- b) To plan for a community of all ages by providing a diversity of housing choice and affordability and providing community and recreational services to match population needs;
- c) To provide for additional housing and employment and address urban land requirements for these uses in the Municipality through intensification of existing developed areas and compact land use in new development areas;
- e) To plan for the development of a new mixed-use Village Centre as part of a centrally located destination area including the Wellness and Recreation Centre and emphasizing Glendon Drive as a traditional village main street with street-oriented, mixed-use buildings to promote the unity of Komoka and Kilworth;
- f) To provide for an appropriate range and mix of housing types and densities;
- h) To support community design that fosters place-making, social engagement, community safety, barrier-free access and active and healthy lifestyles;
- i) To require full municipal services and direct new development in accordance with the servicing strategy for the area;
- j) To plan for a safe, connected and multi-modal transportation network;
- k) To promote energy conservation and efficiency through community layout and building design and reducing reliance on private automobiles;
- n) To protect aggregate resources for future extraction subject to preserving the long-term use of the land for designated settlement area functions.

5.7.2 Land Use Plan

The Land Use Plan for Komoka-Kilworth is shown on Schedule A-2 to this Plan and is further defined by the following policies.

- a) Future land use and development proposals, as well as public works and other municipal projects, shall contribute to the establishment of a balanced, mixed-use community with a new village centre, a mix of housing types and densities distributed among residential and medium density residential areas, a strategic employment area, community



gateways, schools and community facilities, a connected network of multi-use trails and a linked parks and open space system, based on Schedule A-2.

- b) *The land use and circulation pattern for Komoka-Kilworth shall be based on Schedule A-2. The location of roads, multi-use trails, neighbourhood parks, potential school site, stormwater management facilities and boundaries of land uses shown on Schedule A-2 should be considered approximate. Amendments will not be required for minor adjustments to the location of these features provided the general intent of this Plan is maintained, and subject to the policies of Section 1.4 of this Plan identifying circumstances where land use boundaries are to be considered absolute.*

5.7.3 Komoka-Kilworth Village Centre Policies

The following policies apply to the land designated as “Village Centre” on Schedule A-2 in addition to the policies of Section 5.3:

- a) *The Village Centre is planned to function as a centrally located traditional village main street providing a focal point and destination area for community gathering and identity, social interaction, local business and civic activity, in conjunction with and complemented by convenient access and connections to the Wellness and Recreation Centre.*
- c) *In addition to the permitted uses of Section 5.3.3, permitted uses in the Komoka-Kilworth Village Centre shall include mixed use buildings having a residential character including live/work units, provided the built form is in keeping with the policies of this section.*
- d) *The built form within the Village Centre area shall provide for consistent building massing, scale, height and setbacks to promote a pedestrian-friendly streetscape with active and engaging building facades at grade level, and residential above, with regular breaks in the street wall to facilitate pedestrian access and connectivity.*

5.7.4 Komoka-Kilworth Residential Area Policies

The following policies apply to the land designated as “Residential” and “Medium Density Residential” on Schedule A-2 in addition to the policies of Section 5.2:

- a) *The types of housing, density of development and targeted housing mix within the Residential and Medium Density Residential designations on Schedule A-2 are as follows:*

| Use | Housing Mix Targets | Net Density (units per ha) |
|-----------------------------------------------|---------------------|----------------------------|
| Low density residential (e.g. singles, semis) | 60% | less than 20 |
| Medium density residential (e.g. townhouses) | 40% | 20 to 50 |

The net density refers to the land area to be used for housing as well as the abutting local streets but does not include major streets and other residentially associated land uses. Notwithstanding the housing mix targets and net density provisions, multiple dwellings shall be permitted in the Residential designation in accordance with Section 5.2.3.

5.2.3 Policies For Multiple Dwellings in Residential Areas

Multiple dwellings, including four-plexes, town houses and low/medium rise apartments shall be subject to the following policies:

- a) Locations should be proximate to adequate open space or park areas, schools, or Village Centre areas where possible.
- b) Densities proposed should be generally compatible with adjacent densities when proposed adjacent to or within existing residential areas.
- c) For apartment dwellings, locations should be in close proximity to a major roadway, or roadway suitable for carrying higher than average volumes of traffic.
- d) The excessive clustering of multiple dwellings shall be avoided, and a general integration and distribution of such uses at appropriate locations within neighbourhoods or settlements is encouraged.
- e) Notwithstanding Subsection (d) above, the siting of multiple dwellings adjacent to or in close proximity to Village Centres, is encouraged.

5.3.2 Village Centre Policies

- a) It is the intent of this Plan to establish and maintain Village Centres in Urban and Community Settlement Areas as the centres of retail and services, community gathering, and community identity in the Municipality.
- b) Village Centres are planned to function as traditional village main streets that provide for daily and weekly convenience and general retail and service needs for the settlement area and the surrounding agricultural community. Such centres will also represent the commercial and social focal points for the settlement area and its surrounding farm communities.
- c) Mixed-use buildings are encouraged within Village Centre areas.



- d) *Village Centre areas should remain as compact as possible. Consistency in terms of building massing, scale and setback are encouraged. Building designs that allow for separate access to second and third stories along the street are strongly encouraged.*
- g) *Development shall be subject to the policies in Section 6.0 and in Section 10.5 of this Plan and shall have regard for the Municipality's Site Plan Manual and Urban Design Guidelines.*

5.3.3 Permitted Uses

Uses permitted within Village Centres include the following:

- a) *Commercial uses, including general and convenience retail, personal services, and office uses.*
- b) *Restaurants, hotels, compatibly scaled entertainment / recreational facilities, and open space or park land.*
- c) *Residential uses, so long as they do not negatively disrupt the compact nature, and commercial and service use focus, of Village Centres. Residential uses above ground floor commercial uses are encouraged.*
- d) *Institutional and civic uses such as municipal offices and functions, post offices, schools and libraries.*

Policy Analysis

The proposed draft plan of subdivision and associated ZBA comply with the Middlesex Centre Official Plan and associated Komoka-Kilworth Secondary Plan section as follows:

- Proposed zoning includes a mix of single-family, townhouse, stacked townhouse and apartment buildings, in conjunction with commercial uses, thereby contributing to compact form and land use. All proposed uses are consistent with the permitted uses specified in the OP.
- The incorporation of apartments and stacked townhouses will greatly contribute to the Municipality's goal of providing a minimum of 20% of housing to be accessible to lower and moderate-income households.
- Multiple unit dwellings proposed on the subject site are in immediate proximity to a proposed neighbourhood park and within or in immediate proximity to Village Centre areas, including existing retail and recreational uses.
- Proposed apartment buildings are adjacent to Glendon Drive, an arterial road, and the proposed collector road which will be capable of carrying the proposed traffic volumes.



- It assists in establishing and maintaining the Komoka-Kilworth Village Centre area as a retail and service centre by its inclusion of commercial uses within proposed mixed-use buildings along Glendon Drive, which is the primary village main street connecting Komoka and Kilworth.
- The proposed subdivision and mixed-use buildings along Glendon Drive contribute to the development of a “new mixed-use Village Centre”, as outlined in Section 5.7.1.e) of the Secondary Plan, in proximity to the Komoka Wellness Centre
- Building scale and massing will be greater than currently exists within the Village Centre designation, as lands to the east are designated but yet to be developed. Existing uses to the west consist of 3 single family residential dwellings that are also within the Village Centre designation, therefore are likely to be redeveloped to higher intensity and/or commercial uses over time. Beyond these dwellings lies the primary retail centre of Komoka, including the Foodland and multiple other retail, restaurant and service uses, with the Komoka Wellness Centre slightly farther to the west. These buildings and uses are of a higher intensity and larger scale than exists elsewhere in Komoka. The proposed development, while proposed to be taller than that which currently exists on Glendon Drive, is of a suitable scale and intensity for the area in relation to the commercial and recreational uses. It will provide economic support to those uses while also giving future residents convenient pedestrian and cycling access to them.
- The proposed land uses and circulation pattern are in general accordance with Schedule A-2 of the Official Plan, which identifies Village Centre and Low-Density residential uses for the subject site. The Village Centre uses extend slightly farther to the north with a slight reduction of the Low-Density Residential Area, with the proposed Collector Road utilized as a logical delineation between the two uses. The Official Plan indicates that land use designation boundaries are considered approximate except where bounded by roads, railways, bodies of water or other geographic features. As there is no physical collector road in existence at this time, it is our opinion that the land use designations and collector road alignments are approximate in nature, and that the proposed subdivision maintains the intent of the Official Plan when considered in the context of the overall policies pertaining to residential and village centre designations.
- As the Village Centre designation to the immediate west extends the full depth of that site up to the railway, a slight extension of the Village Centre uses on the subject lands is both consistent and compatible with those adjacent lands and has no negative impact on lands to the east as they are not yet developed. This allows for an appropriate transition between the low density uses north of the collector road and the higher intensity commercial/mixed use buildings along Glendon Drive and to the west. It also

maintains the planned function of Collector Roads which is to serve light to moderate volumes of traffic for short travel distances and to provide connections between local and arterial roads.

- Section 5.7.4 identifies housing mix and density targets for Residential and Medium Density Residential designations. There are no density targets or housing mixes identified for Village Centres. The proposed subdivision anticipates a density of approximately 24 units per hectare within the Low-Density portion, based on the anticipated mix of 55% detached and 45% attached units in conjunction with the maximum proposed zoning. While this is very slightly in excess of the density target of 20 UPH, it is in general accordance with the OP when considered in the context of affordable and attainable housing goals. Within the subdivision as a whole, the anticipated housing mix is expected to be approximately 42% single/townhouse/stacked townhouse form and 58% apartment form, with an overall gross density within the subdivision of 48 UPH based on maximum requested zoning and preliminary concept plans.

5.5 Urban Design

Policies pertaining to urban design, particularly with respect to new subdivisions, are contained in Section 6.2 of the Official Plan. In addition, The Municipality of Middlesex Centre Settlement Area Urban Design Guidelines were established “to assist in guiding the evolution of the urban fabric” of the various settlement areas and include guidelines for both infill and greenfield development. They provide additional direction and detail to the policies included in the Official Plan and Secondary Plan. Many of the policies and guidelines are most applicable at the site plan and building design stage. However, key policies and guidelines relevant to the draft plan and ZBA are outlined below, with greater detail provided in Appendix D.

Applicable OP Policies

6.2 Design Policies - Plans of Subdivision

- This Plan strongly encourages subdivision design that considers, and wherever possible continues, existing and traditional street patterns and neighbourhood structure. Neighbourhood patterns are encouraged to provide clearly defined neighbourhood centres and edges where appropriate. Design should emphasize connectivity and multiple route choice for pedestrians, cyclists, and automobiles.*
- Where new plans of subdivision are proposed in settlement areas characterized by standard or modified block patterns or traditional street grids, the continuation*

of such patterns is encouraged unless more suitable or innovative patterns are agreed to. Cul- de-sacs are discouraged in such circumstances.

- c) *Street patterns that create view corridors and vistas, particularly in circumstances where significant landmarks or features are involved, are encouraged.*
- e) *Designs that establish reverse lotting on Municipal roads, or require features such as noise attenuation or privacy fencing, are discouraged. Wherever possible, new residences will be oriented toward streets or parks.*
- f) *Alternative development standards as set out in the Provincial document "Making Choices: Alternative Development Standards Guidelines" will be considered. Such standards may relate to:*
 - *Boulevard widths, road rights-of-way and pavement widths.*
 - *Alternative standards for the spacing and location of underground services.*
- g) *Development shall have regard for the Municipality's Urban Design Guidelines.*

Applicable Guidelines

4.1 *Design Objectives for New Residential Neighbourhoods*

The primary goal for the design of new and sustainable neighbourhoods is the creation of attractive and healthy residential environments through the design of streetscapes, public open spaces, and architectural forms. To support this vision, the primary design objectives for new neighbourhoods within the Municipality of Middlesex Centre are the:

- a) *Design of safe, attractive, and energy-efficient neighbourhoods.*
- b) *Design and development of attractive, comprehensively planned residential neighbourhoods that have a clear sense of organization.*
- d) *Introduction of an integrated system of pedestrian walkways, bicycle paths, and open space trails that encourage physical activity and alternatives to the car for local travel.*
- e) *Design of safe, quiet, tree-lined streets that provide visual variety and de-emphasize the presence of cars and garages as a dominant element in the streetscape.*
- f) *Preservation, enhancement and creation of views and vistas of parks, natural heritage features and the rural landscape.*
- g) *Creation of an attractive and varied visual experience when viewed from major roads through the minimizing of rear lotting and noise walls; and*

5.1 *Design Objectives for Multiple Dwellings*

The design and siting of medium density housing within settlement areas shall support the following urban design objectives:

- a) *The design, siting and massing of medium density housing shall promote a character and sense of scale that is compatible with other low rise residential housing types.*
- b) *The individual and collective design and siting of medium density building types shall encourage an attractive and safe pedestrian environment and promote an eyes-on-the-street approach to the design of streetscapes.*
- c) *The individual and collective design of buildings shall support a sense of scale that is appropriate to the scale of the streetscape and its landscaping.*
- f) *In the design of a block townhouse development that contains frontage onto a public street, buildings shall be oriented to face and address onto the public street through their design massing and the locations of main building entrances.*

5.2 Building Orientation, Massing and Siting

- a) *Low rise apartment buildings shall be located to address the street with their massing, main entrances, and lobbies.*

Response to Urban Design Policies and Guidelines

The proposed subdivision plan and associated zoning are in accordance with relevant urban design policies and guidelines as follows:

- There are no existing street patterns in the vicinity of the site, however the proposed subdivision plan has been designed with a general grid pattern, carrying on the traditional street pattern existing in Komoka. Clearly defined edges are provided by the proposed collector road between differing housing types and densities.
- The proposed variety in forms of housing will contribute to compact and energy efficient development.
- The draft plan has been comprehensively designed with a logical street pattern and a range of uses and housing types that are suitable for the street classification on which they are located. Low density housing is located along local streets towards the rear of the development, whereas higher density forms of housing are situated along the arterial and collector street network, with commercial uses situated along the arterial.
- A multi-use trail system is proposed along the railway corridor and stormwater management pond, providing linkages to a neighbourhood park as well as to the existing commercial and recreational uses located to the west of the site. Mid-block walkways are also proposed from east to west to provide a direct pedestrian and cycling link to the proposed park.



- Four local streets connect to the collector street (Street B). The crescent form of these streets will contribute to quiet and safe streets as there are no opportunities for through traffic.
- Mixed use buildings (apartment, ground floor commercial) are proposed along Glendon Drive, providing active frontages. No rear lotting is proposed along either Glendon Drive or the internal collector Street B, contributing to a pedestrian oriented streetscape.
- The proposed development will establish a new character along Glendon Drive, with the incorporation of medium and high-density mixed-use buildings. Komoka-Kilworth is identified as an 'Urban Area' in the Official Plan, therefore the image and character are consistent with the long-term intentions of the area and also compatible with the larger scale commercial and recreation buildings to the west.
- Visual variety along streetscapes will be provided by the proposed mix of housing types, which include low and medium density residential.
- Preliminary concept plans for medium and high-density buildings (street townhouses, stacked townhouses and apartments) are generally aligned to the streets, providing a safe, attractive streetscape with good visibility.
- An appropriate sense of scale is provided through the placement of single and street townhouse forms of development along local streets, with stacked townhouses and apartments along the collector street. Highest density buildings are aligned along Glendon Drive, an arterial street.
- Proposed concept plans for higher intensity buildings (apartments and street townhouses) locate all parking to the interior of the site. No parking is anticipated to be located between the buildings and the street.

6.0 CONCLUSION

The proposed subdivision introduces a new and exciting chapter in the development of the Komoka-Kilworth area. Mixed-use development, new housing forms, increased densities and height will contribute to a vibrant and visually appealing village centre that also provides economic support to existing businesses in the immediate vicinity, along with more affordable and attainable residential opportunities. The subdivision's focus on compact form, pedestrian and cycling connectivity and potential energy infrastructure also strongly supports the County's and Municipality's long-term sustainability goals.



In our professional opinion the requested Draft Plan of Subdivision and associated Zoning By-law Amendment:

- 1) are consistent with the policies of the 2024 Provincial Planning Statement;
- 2) conform with the general intent and relevant policies of the Middlesex County and Middlesex Centre Official Plans;
- 3) will maintain the intent of the Municipality of Middlesex Centre ZBL and when the ZBA is passed, it will establish the regulatory framework required for the development to comply with the ZBL;
- 4) are of sound planning.

I hereby certify that this report was prepared by a Registered Professional Planner within the meaning of the Ontario Professional Planners Institute Act, 1994.

Report Completed By:

Mrs. Nicole C. Ooms

Project Manager: Planning & Development
Sifton Properties Limited

Report Approved By:

Maureen Zunti, MCIP, RPP

Planning Consultant
MAZunti Planning

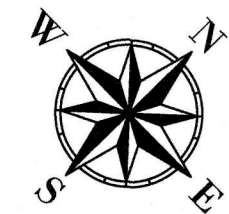


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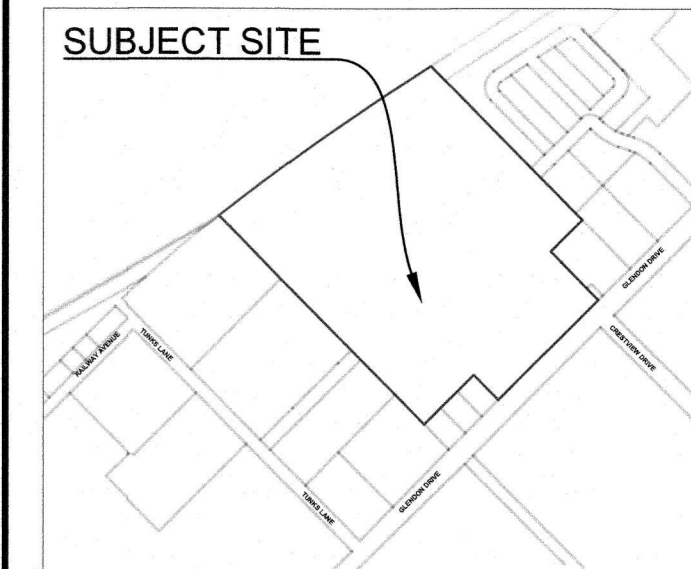
Sifton Properties Limited
Planning Justification Report
10242 Glendon Drive

APPENDIX A

Proposed Draft Plan of Subdivision



DRAFT PLAN OF SUBDIVISION
CON 2 S PT LOT 7
 10242 GLENDON DRIVE
 KOMOKA, ONTARIO N0L 1R0



KEY PLAN - N.T.S.

OWNER'S CERTIFICATE

I hereby consent to the filing of this Plan in Draft Form.

Richard Epton
 President & CEO
 Date: May 26/25

Phillip Maschelein
 Senior Vice President
 Neighbourhood Developments
 Date: May 26/25

SURVEYOR'S CERTIFICATE

I hereby certify that the boundary of the lands to be subdivided as shown on this plan and their relationship to the adjacent lands are accurately and correctly shown.

Robert Wood, O.L.S.
 Surveyor
 Date: May 16/2025

REQUIREMENTS UNDER SECTION 51 (17) OF THE PLANNING ACT, 1990

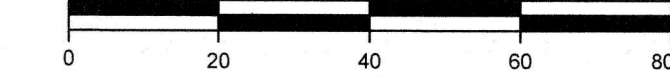
- a) as shown on plan
- b) as shown on plan
- c) as shown on key plan
- d) as shown on land use schedule
- e) as shown on plan
- f) as shown on plan
- g) as shown on plan
- h) municipal water
- i) clayey silt fill
- j) as shown on plan
- k) municipal sewers
- l) as shown on plan

| LAND USE SCHEDULE | | |
|----------------------------------------------------------------------|--------------|------------|
| LAND USES | HECTARES | PERCENT |
| BLOCKS: 1 - 10 Low Density Residential | 3.79 | 21.0 |
| BLOCKS: 11 - 16 Medium Density Residential - Street Townhouses | 1.75 | 9.7 |
| BLOCKS: 17 & 18 Medium Density Residential | 2.42 | 13.4 |
| BLOCK: 19 Medium / High Density Residential | 1.52 | 8.4 |
| BLOCK: 20 Mixed Use Development | 2.08 | 11.5 |
| BLOCK: 21 & 22 Parkland | 0.67 | 3.7 |
| BLOCKS: 25 - 28 Municipal Walkways | 0.07 | 0.4 |
| BLOCKS: 23, 24, 29 & 30 Open Space | 1.20 | 6.7 |
| BLOCK: 31 Storm Water Management Pond | 1.10 | 6.1 |
| BLOCKS: 32, 33 & 34 Future Development | 0.06 | 0.4 |
| BLOCKS: 35, 36 & 37 0.3 Reserve | 0.00 | 0.0 |
| Proposed Roads and ROW | 3.41 | 18.9 |
| TOTAL SITE AREA | 18.06 | 100 |



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1:1,000

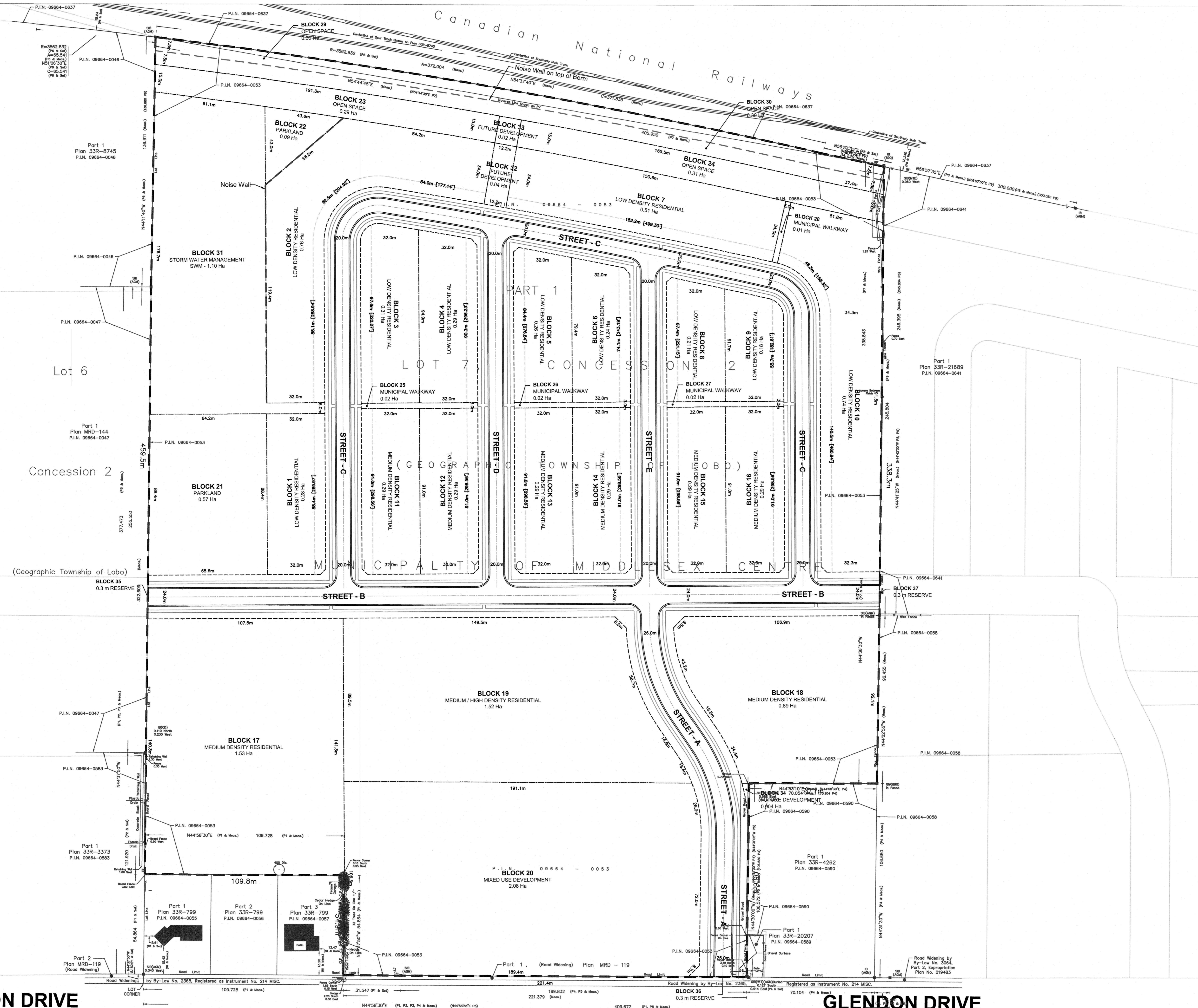


DRAFT PLAN OF SUBDIVISION
 10242 GLENDON DRIVE
 KOMOKA, ONTARIO, N0L1R0

DESIGNED BY: AL
 APPROVED BY: NO
 DATE: 15 May 2025

GLENDON DRIVE

GLENDON DRIVE





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Planning Justification Report
10242 Glendon Drive

APPENDIX B

Proposed Zoning Layouts and Requested Provisions

**ZONING TO ACCOMPANY DRAFT
PLAN OF SUBDIVISION**

CON 2 S PT LOT 7
10242 GLENDON DRIVE
KOMOKA, ONTARIO N0L 1R0

MUNICIPALITY OF MIDDLESEX CENTRE ZONING BY-LAW - 2005-005

**UR2 - URBAN RESIDENTIAL
SECOND DENSITY**

9.1 PERMITTED USES
No land shall be used and no buildings or structures shall be erected, used, or altered in the Urban Residential Second Density (UR2) Zone except for the following purposes:
accessory use, duplex dwelling, home occupation, link dwelling, semi-detached dwelling, single detached dwelling.

9.1.2 MINIMUM LOT AREA
(a) single detached dwelling, semi-detached dwelling, duplex dwelling, link dwelling: 450 m²
(b) semi-detached dwelling unit, link dwelling unit: 225 m²

9.1.3 MINIMUM LOT FRONTAGE
(a) single detached dwelling: 15 m
(b) semi-detached dwelling, duplex dwelling, link dwelling: 10 m
(c) semi-detached dwelling unit, link dwelling unit: 9 m

9.1.4 MINIMUM FRONT YARD SETBACK
6.0 m

9.1.5 MINIMUM SIDE YARD SETBACK
(a) single detached dwelling, semi-detached, link dwelling: 1.5 m (interior lot), 6.0 m on the side abutting a street and 1.5 m on the other side on a corner lot; provided that no side yard shall be required between the common wall dividing individual semi-detached dwelling units and 1.5 m dividing link dwelling units
(b) duplex dwelling: 1.5 m on an interior lot; and on a corner lot, 6.0 m on the side abutting a street and 1.5 m on the other side

9.1.6 MINIMUM REAR YARD SETBACK
8.0 m

9.1.7 MINIMUM OUTDOOR AMENITY AREA
45 m² per dwelling unit

9.1.8 MAXIMUM LOT COVERAGE
(a) main building: 35%
(b) all buildings including accessory buildings subject to Section 4.1a: 38%

9.1.9 MINIMUM FLOOR AREA PER DWELLING UNIT
(a) duplex dwelling, semi detached dwelling, link dwelling: 65.0 m²
(b) single detached dwelling: 90.0 m²

9.1.10 MAXIMUM HEIGHT
(a) all dwellings: 12.0 m

C1 - VILLAGE COMMERCIAL

15.1 PERMITTED USES
No land shall be used and no buildings or structure shall be erected, used, or altered in the Village Commercial (C1) Zone except for the following purposes:
accessory use, animal clinic, bed and breakfast establishment, boarding house, rooming house or tourist home, car wash, clinic, club, private day nursery, dwelling units connected to and forming an integral part of a main building and located above the first storey to a maximum of two storeys and/or located below the first storey in a basement, financial institution, garage, public gas bar, hotel, motel or tavern, office general or professional, parking lot, personal service establishment, place of entertainment, restaurant, restaurant drive-thru or take-out, service shop store, convenience store, retail studio.

15.1.2 MINIMUM LOT AREA
(a) where a public water supply and public sanitary sewage systems are not available: 3,000 m²
(b) where a public water supply or public sanitary sewage system is available: 2,000 m²
(c) where a public water supply and public sanitary sewage system are available: 1,500 m²

15.1.3 MINIMUM LOT FRONTAGE
20.0 m

15.1.4 MINIMUM FRONT YARD SETBACK
(a) in accordance with Section 4.18 of this By-law
(b) all other roads: 0.0 m

15.1.5 MINIMUM SIDE YARD SETBACK
(i) where the yard abuts any Residential Zone: 6.0 m
(ii) Corner lot: 6.0 m on the side abutting the road and 0.0 m on the other side

15.1.6 MINIMUM REAR YARD SETBACK
10.0 m

15.1.7 MAXIMUM LOT COVERAGE
40%

15.1.8 MINIMUM SEPARATION DISTANCE FROM A BUILDING OR PUMP ISLAND TO A DWELLING
7.5 m

15.1.9 MAXIMUM HEIGHT
12.0 m

EU - EXISTING USE

25.1.1 PERMITTED USES
No land shall be used and no buildings or structures shall be erected, used, or altered in the Existing Use (EU) Zone except for the following purposes:
any use existing as of the date of the passing of this By-law

25.1.2 REGULATIONS FOR LOTS AND BUILDINGS
The minimum lot area and lot frontage, the minimum front, side and rear yards, the maximum lot coverage, and the maximum building height shall remain as they lawfully existed as of the date of the passing of this By-law.

25.2.2 PUBLIC USES
Notwithstanding Subsection 23.1.2 of this By-law, the erection, alteration or use of any building or structure, or portion thereof, for the purpose of public service by a public authority or public utility shall be permitted provided the lot coverage, setback and yard requirements of the Institutional (I) Zone are complied with.

**UR3 - URBAN RESIDENTIAL
THIRD DENSITY**

10.1.1 PERMITTED USES
No land shall be used and no buildings or structures shall be erected, used, or altered in the Urban Residential Third Density (UR3) Zone except for the following purposes:
accessory use, apartment dwelling, multiple unit dwelling, street townhouses dwelling, townhouse dwelling.

10.1.2 MINIMUM LOT AREA
(a) street townhouse, townhouse or multiple unit dwelling: 250.0 m² per dwelling unit
(b) apartment dwelling: 250.0 m² for each of the first four dwelling units and 100.0 m² for each additional dwelling thereafter

10.1.3 MINIMUM LOT FRONTAGE
(a) townhouse, apartment or multiple unit dwelling: 30.0 m
(b) street townhouse dwelling: 6.0 m for each dwelling unit on a separate lot

10.1.4 MINIMUM LOT DEPTH
35.0 m

10.1.5 MINIMUM FRONT YARD SETBACK
(a) in accordance with Section 4.18 of this By-law
(b) all other roads: 6.0 m

10.1.6 MINIMUM SIDE YARD SETBACK
(a) street townhouse or townhouse dwelling: 3.0 m on an interior lot, and 6.0 m on the side abutting a street and 3.0 m on the other side on a corner lot; provided that no side yard shall be required between the common wall dividing individual dwelling units.
(b) apartment or multiple unit dwelling: 10.0 m

10.1.7 MINIMUM REAR YARD SETBACK
8.0 m

10.1.8 MINIMUM FLOOR AREA
(a) street townhouse dwelling, townhouse dwelling:
35.0 m² per dwelling unit
(b) apartment, multiple unit dwelling: 40.0 m² per bachelor dwelling unit, 55.0 m² per one bedroom dwelling unit, 65.0 m² per two bedroom dwelling unit, 85.0 m² per three bedroom dwelling unit, 85.0 m² plus 9.0 m² per each bedroom in excess of three for dwelling units containing more than three bedrooms

10.1.9 MAXIMUM HEIGHT
20.0 m

10.1.10 MAXIMUM DENSITY
30 units per hectare (UPH)

10.1.11 MINIMUM OUTDOOR AMENITY AREA
45.0 m² per dwelling unit

10.1.12 MAXIMUM LOT COVERAGE
(a) main building: 35%
(b) all buildings including accessory buildings subject to Section 4.1a: 38%

PR - PARKS AND RECREATION

23.1.1 PERMITTED USES
No land shall be used and no buildings or structures shall be erected, used, or altered in the Parks and Recreation (PR) Zone except for the following purposes:
accessory use club, private conservation uses forestry use, golf course, park, public or private place or recreation

23.1.2 MINIMUM FRONT YARD SETBACK
(a) in accordance with Section 4.18 of this By-law
(b) all other roads: 10 m

23.1.3 MINIMUM SIDE YARD SETBACK
10.0 m

23.1.4 MINIMUM REAR YARD SETBACK
7.5 m

23.1.5 MAXIMUM LOT COVERAGE
20%

23.1.6 MAXIMUM HEIGHT
12.0 m

OS - OPEN SPACE

24.1.1 PERMITTED USES
No land shall be used and no buildings or structures shall be erected, used, or altered in the Open Space (OS) Zone except for the following purposes:
accessory uses, agricultural use - excluding buildings and structures, conservation use, forestry use, nursery, park - public or private

24.1.2 MINIMUM FRONT YARD SETBACK
(a) in accordance with Section 4.18 of this By-law
(b) all other roads: 10.0 m

24.1.3 MINIMUM SIDE YARD SETBACK
10.0 m

24.1.4 MINIMUM REAR YARD SETBACK
7.5 m

24.1.5 MAXIMUM HEIGHT
12.0 m

24.1.6 MAXIMUM LOT COVERAGE
20%

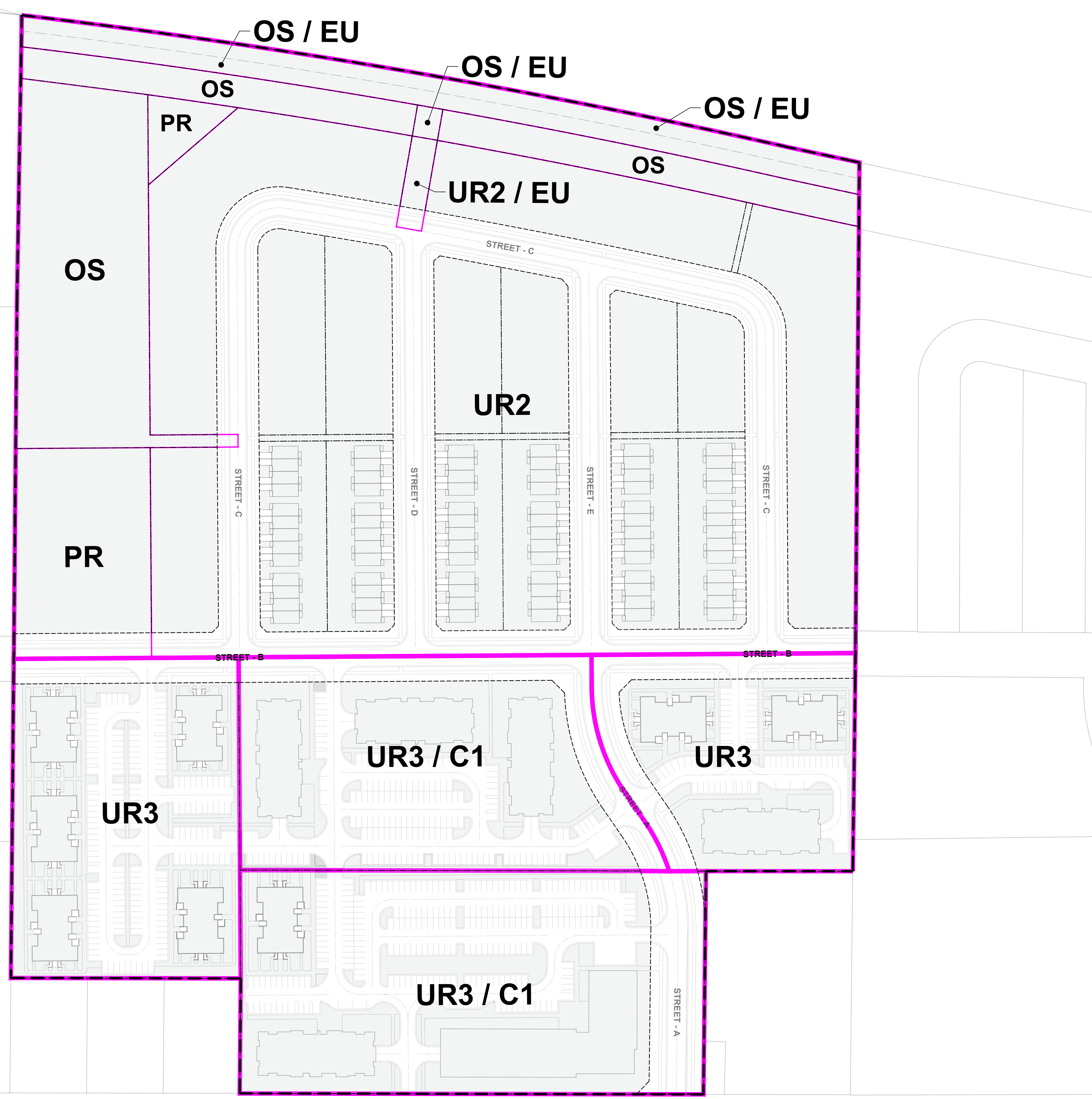
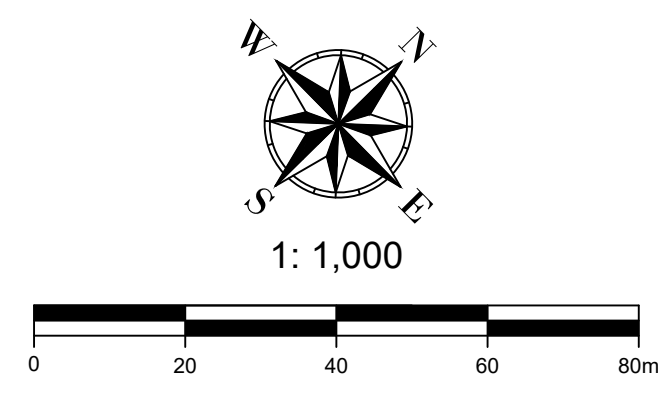
NOTE: All references to buildings, parking and landscaped space is shown as conceptual, only to support a Zoning By-Law Amendment Application. All blocks are subject to change, until such time as a Site Plan Application is filed.



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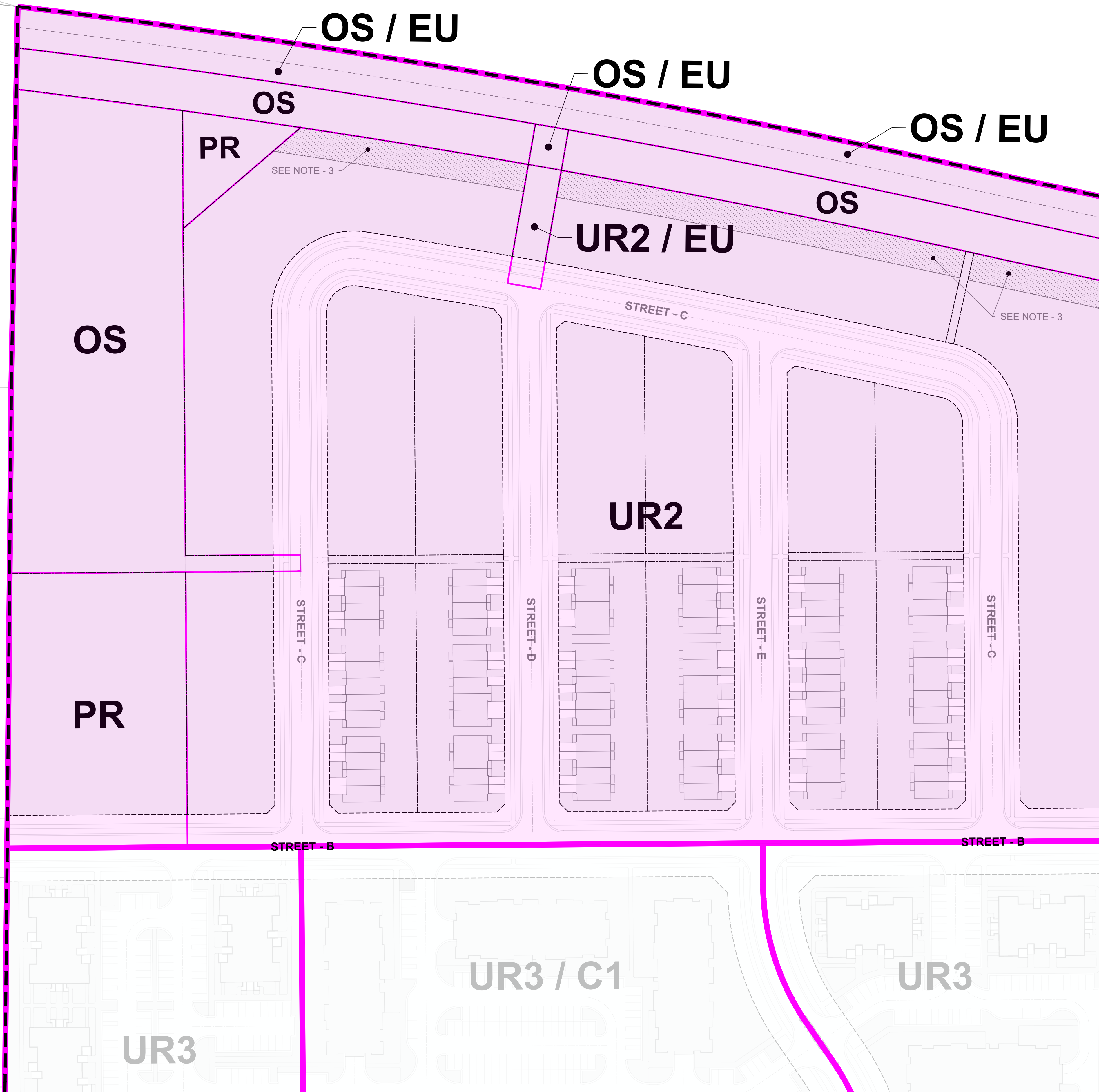
ZONING PLAN OF SUBDIVISION
10242 GLENDON DRIVE
KOMOKA, ONTARIO, N0L1R0

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GLENDON DRIVE

GLENDON DRIVE



**ZONING TO ACCOMPANY DRAFT
PLAN OF SUBDIVISION**

CON 2 S PT LOT 7
10242 GLENDON DRIVE
KOMOKA, ONTARIO N0L 1R0

PROPOSED ZONING TABLES

ZONE ONE

| SINGLE DETACHED | | |
|------------------------------|------------------------------------|-----------------------------------------|
| UR2 - VARIANT | REQUIRED | REQUESTED |
| Lot Frontage (min) | 15 m (49 feet) | 10.5 m (34 feet) |
| Lot Area | 450 m ² (4,844 sq feet) | 336 m ² (3,616 sq feet) |
| Lot Depth | - | 32 m |
| Unit Frontage | - | - |
| FY Setbacks (Dwelling) | 6 m | 4.5 m |
| SY Setback (Interior) | 1.5 m | 1.2 m |
| SY Setback (Exterior) | 6 m | 4 m |
| RY Setback (Dwelling) | 8 m | 8 m |
| Min Ground Floor Area (Unit) | - | 78 m ² (850 sq feet) / floor |
| Maximum Height | 12 m (39.4 feet) | 12 m (39.4 feet) |
| Coverage (Dwelling) | 35 % | 44 % |
| Density | - | - |

| SEMI DETACHED | | |
|------------------------------|-----------------------------------------------------|-----------------------------------------------------|
| UR2 - VARIANT | REQUIRED | REQUESTED |
| Lot Frontage (min) | 18 m (59 feet) | 18 m (59 feet) |
| Lot Area | 576 m ² / lot, 288 m ² / unit | 576 m ² / lot, 288 m ² / unit |
| Lot Depth | - | 32 m |
| Unit Frontage | 9 m (29.5 feet) | 9 m (29.5 feet) |
| FY Setbacks (Dwelling) | 6 m | 4.5 m |
| SY Setback (Interior) | 1.5 m | 1.2 m |
| SY Setback (Exterior) | 6 m | 4 m |
| RY Setback (Dwelling) | 8 m | 6 m |
| Min Ground Floor Area (Unit) | 90.0 m ² (969 sq feet) | 65 m ² (700 sq feet) |
| Maximum Height | 12 m (39.4 feet) | 12 m (39.4 feet) |
| Coverage (Dwelling) | 35 % | 50 % |
| Density | - | - |

| STREET TOWNHOUSES | | |
|-------------------------------|------------------------------------|---------------------------------|
| UR2 - VARIANT | REQUIRED | REQUESTED |
| Lot Frontage (min) | - | - |
| Lot Area | 250 m ² (2,961 sq feet) | 170 m ² / unit |
| Lot Depth | 35 m (115 feet) | 30 m |
| Unit Frontage | 6 m (19.68 feet) | 6 m (19.68 feet) |
| FY Setbacks (Dwelling) | 6 m | 4.5 m |
| SY Setback (Interior) | 3 m | 1.2 m |
| SY Setback (Exterior) | 6 m | 4 m |
| RY Setback (Dwelling) | 8 m | 6 m |
| Min Ground Floor Area (Unit) | 65 m ² (700 sq feet) | 65 m ² (700 sq feet) |
| Maximum Height | 20 m (66 feet) | 20 m (66 feet) |
| Coverage (Dwelling) | 35 % | 50 % |
| Density | - | - |
| Number of Units (min / block) | 4 | 3 |

| TOWNHOUSE DWELLING | | |
|------------------------------|------------------------------------|---------------------------------|
| UR2 - VARIANT | REQUIRED | REQUESTED |
| Lot Frontage (min) | - | - |
| Lot Area | 250 m ² (2,961 sq feet) | 170 m ² / unit |
| Lot Depth | 35 m (115 feet) | 25 m |
| Unit Frontage | 6 m (19.68 feet) | 6 m (19.68 feet) |
| FY Setbacks (Dwelling) | 6 m | 4.5 m |
| SY Setback (Interior) | 3 m | 1.2 m |
| SY Setback (Exterior) | 6 m | 4 m |
| RY Setback (Dwelling) | 8 m | 6 m |
| Min Ground Floor Area (Unit) | 65 m ² (700 sq feet) | 65 m ² (700 sq feet) |
| Maximum Height | 20 m (66 feet) | 20 m (66 feet) |
| Coverage (Dwelling) | 35 % | 50 % |
| Density | - | - |

***OWNERSHIP TO BE DETERMINED PRIOR TO REGISTRATION OF
THE PLAN OF SUBDIVISION**

- Blocks 28 and 29 are zoned 'Open Space' and owned / maintained by the municipality; as mentioned in previous correspondence. Block 22 remains as parkland and Block 31 reverts back to a residential lot.
- Blocks 28 and 29 are zoned 'Open Space' and 'Existing Use' permitting public utilities. Block 32 is zoned PR / OS / EU and Block 31 is zoned UR2 / EU. All blocks mentioned are proposed to be developer / utility company owned. This would require an access easement across Block 23 for continuation of a multi-use trail.
- Site specific by-law requiring a 10m rear yard setback from the rail line. This would affect the northerly portion of Block 2 where it abuts Block 23, the northerly portion of Block 10 where it abuts Block 24 and all of Block 7.

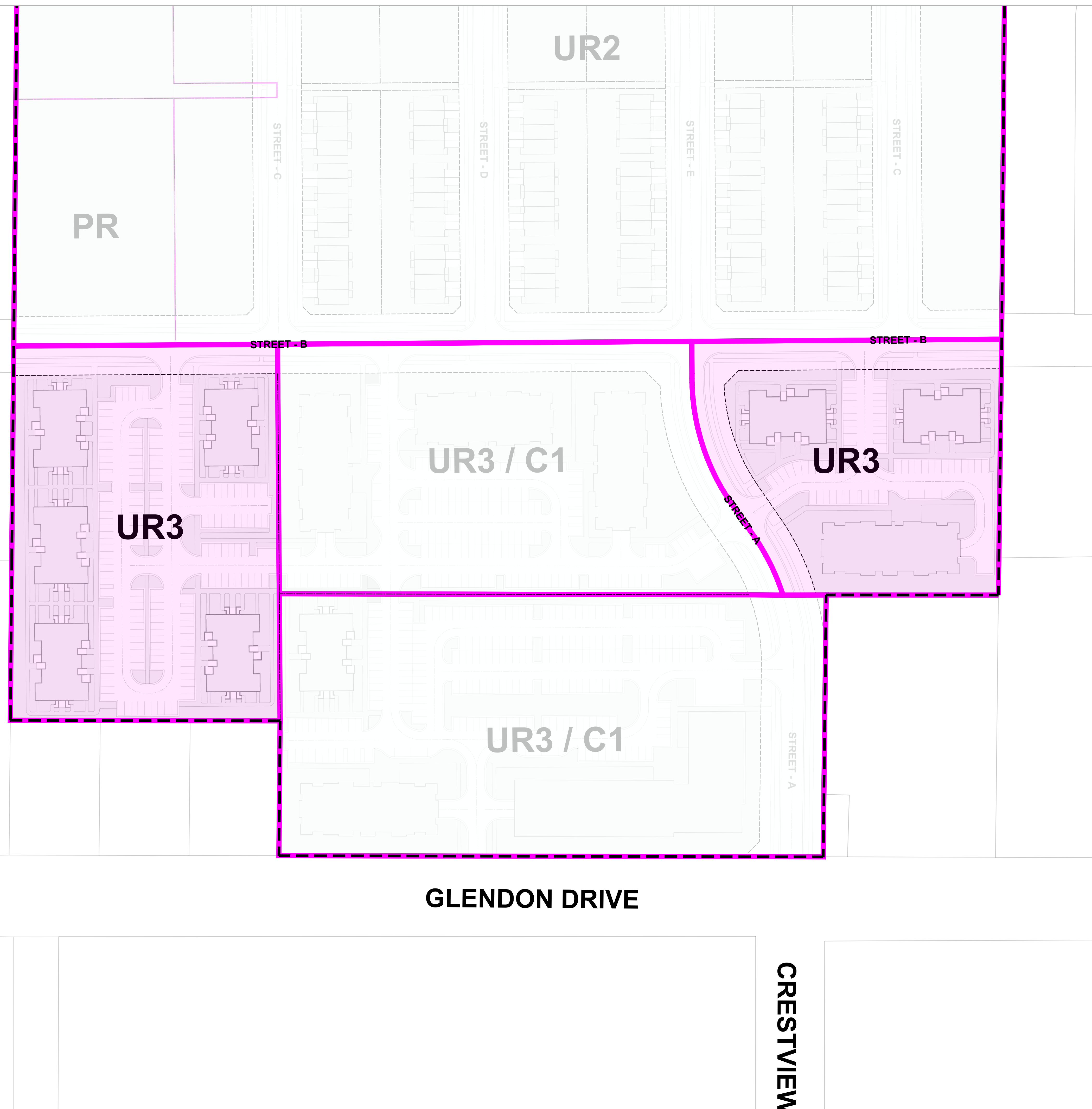
NOTE: All references to buildings, parking and landscaped space is shown as conceptual, only to support a Zoning By-Law Amendment Application. All blocks are subject to change, until such time as a Site Plan Application is filed.



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ZONING PLAN OF SUBDIVISION
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**ZONING TO ACCOMPANY DRAFT
PLAN OF SUBDIVISION**

CON 2 S PT LOT 7
10242 GLENDON DRIVE
KOMOKA, ONTARIO N0L 1R0

PROPOSED ZONING TABLES

ZONE TWO

| STREET TOWNHOUSE | | |
|-------------------------------|------------------------------------|---------------------------------|
| UR3 - VARIANT | REQUIRED | REQUESTED |
| Lot Frontage (min) | - | - |
| Lot Area | 250 m ² (2,691 sq feet) | 170 m ² / unit |
| Lot Depth | 35 m (115 feet) | 30 m |
| Unit Frontage | 6 m (19.68 feet) | 6 m (19.68 feet) |
| FY Setbacks (Dwelling) | 6 m | 4.5 m |
| SY Setback (Interior) | 3 m | 1.2 m |
| SY Setback (Exterior) | 6 m | 4 m |
| RY Setback (Dwelling) | 8 m | 6 m |
| Min Ground Floor Area (Unit) | 6 m ² (700 sq feet) | 65 m ² (700 sq feet) |
| Maximum Height | 20 m (66 feet) | 20 m (66 feet) |
| Coverage (Dwelling) | 35% | 50% |
| Density | - | - |
| Number of units (min / block) | 4 | 3 |

| TOWNHOUSE | | |
|-------------------------------|------------------------------------|---------------------------------|
| UR3 - VARIANT | REQUIRED | REQUESTED |
| Lot Frontage (min) | - | - |
| Lot Area | 250 m ² (2,691 sq feet) | 170 m ² / unit |
| Lot Depth | 35 m (115 feet) | 25 m |
| Unit Frontage | 6 m (19.68 feet) | 6 m (19.68 feet) |
| FY Setbacks (Dwelling) | 6 m | 4.5 m |
| SY Setback (Interior) | 3 m | 1.2 m |
| SY Setback (Exterior) | 6 m | 4 m |
| RY Setback (Dwelling) | 8 m | 6 m |
| Min Ground Floor Area (Unit) | 65 m ² (700 sq feet) | 65 m ² (700 sq feet) |
| Maximum Height | 20 m (66 feet) | 20 m (66 feet) |
| Coverage (Dwelling) | 35% | 50% |
| Density | - | - |
| Number of units (min / block) | - | - |

| STACKED TOWNHOUSE | | |
|-------------------------------|------------------------------------|------------------------------------|
| UR3 - VARIANT | REQUIRED | REQUESTED |
| Lot Frontage (min) | 30 m | 30 m |
| Lot Area | 1,000 m ² | 1,000 m ² |
| Lot Depth | 35 m (115 feet) | 35 m (115 feet) |
| Unit Frontage | - | - |
| FY Setbacks (Dwelling) | 3.3 m | 3.3 m |
| SY Setback (Interior) | 2.2 m | 2.2 m |
| SY Setback (Exterior) | 6 m | 6 m |
| RY Setback (Dwelling) | 4.5 m | 4.5 m |
| Min Ground Floor Area (Unit) | 538 m ² (5,791 sq feet) | 538 m ² (5,791 sq feet) |
| Maximum Height | 20 m (66 feet) | 20 m (66 feet) |
| Preferred Storey Height (max) | - | Four Storey |
| Coverage (Dwelling) | - | - |
| Density | 45% | 45% |
| Number of units (min / block) | 100 UPH | 100 UPH |

| BACK-to-BACK TOWNHOUSE | | |
|-------------------------------|------------------------------------|------------------------------------|
| UR3 - VARIANT | REQUIRED | REQUESTED |
| Lot Frontage (min) | 30 m | 30 m |
| Lot Area | 1,000 m ² | 1,000 m ² |
| Lot Depth | 35 m (115 feet) | 35 m (115 feet) |
| Unit Frontage | - | - |
| FY Setbacks (Dwelling) | 3.3 m | 3.3 m |
| SY Setback (Interior) | 2.2 m | 2.2 m |
| SY Setback (Exterior) | 6 m | 6 m |
| RY Setback (Dwelling) | 4.5 m | 4.5 m |
| Min Ground Floor Area (Unit) | 538 m ² (5,791 sq feet) | 538 m ² (5,791 sq feet) |
| Maximum Height | 20 m (66 feet) | 20 m (66 feet) |
| Preferred Storey Height (max) | - | Four Storey |
| Coverage (Dwelling) | 45% | 45% |
| Density | 100 UPH | 100 UPH |
| Number of units (min / block) | - | - |

| STACKED, BACK-to-BACK TOWNHOUSE | | |
|---------------------------------|------------------------------------|------------------------------------|
| UR3 - VARIANT | REQUIRED | REQUESTED |
| Lot Frontage (min) | 30 m | 30 m |
| Lot Area | 1,000 m ² | 1,000 m ² |
| Lot Depth | 35 m (115 feet) | 35 m (115 feet) |
| Unit Frontage | - | - |
| FY Setbacks (Dwelling) | 3.3 m | 3.3 m |
| SY Setback (Interior) | 2.2 m | 2.2 m |
| SY Setback (Exterior) | 6 m | 6 m |
| RY Setback (Dwelling) | 4.5 m | 4.5 m |
| Min Ground Floor Area (Unit) | 538 m ² (5,791 sq feet) | 538 m ² (5,791 sq feet) |
| Maximum Height | 20 m (66 feet) | 20 m (66 feet) |
| Preferred Storey Height (max) | - | Five Storey |
| Coverage (Dwelling) | 45% | 45% |
| Density | 100 UPH | 100 UPH |
| Number of units (min / block) | - | - |

| APARTMENT | | |
|-------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|
| UR3 - VARIANT | REQUIRED | REQUESTED |
| Lot Frontage (min) | 30 m | 30 m |
| Lot Area | 250 m ² / unit (1-4) + 100 m ² / additional unit | 250 m ² / unit (1-4) + 100 m ² / additional unit |
| Lot Depth | 35 m (115 feet) | 35 m (115 feet) |
| Unit Frontage | - | - |
| FY Setbacks (Dwelling) | 6 m | 6 m |
| SY Setback (Interior) | 10 m | 8 m |
| SY Setback (Exterior) | 10 m | 8 m |
| RY Setback (Dwelling) | 8 m | 8 m |
| Min Ground Floor Area (Unit) | as outlined 10.1.8 | as outlined 10.1.8 |
| Maximum Height | 20 m (66 feet) | 23 m (75 feet) |
| Preferred Storey Height (max) | - | Six Storey |
| Coverage (Dwelling) | 35% | 40% |
| Density | 30 UPH | 100 UPH |
| Number of units (min / block) | - | - |

| MULTIPLE DWELLING UNIT | | |
|-------------------------------|------------------------------------|--------------------|
| UR3 - VARIANT | REQUIRED | REQUESTED |
| Lot Frontage (min) | 30 m | 30 m |
| Lot Area | 250 m ² (2,691 sq feet) | - |
| Lot Depth | 35 m (115 feet) | 35 m (115 feet) |
| Unit Frontage | - | - |
| FY Setbacks (Dwelling) | 6 m | 6 m |
| SY Setback (Interior) | 10 m | 8 m |
| SY Setback (Exterior) | 10 m | 8 m |
| RY Setback (Dwelling) | 8 m | 8 m |
| Min Ground Floor Area (Unit) | as outlined 10.1.8 | as outlined 10.1.8 |
| Maximum Height | 20 m (66 feet) | 20 m (66 feet) |
| Coverage (Dwelling) | 35% | 35% |
| Density | 30 UPH | 100 UPH |
| Number of units (min / block) | - | - |

Additional Permitted Uses:

- Long-term Care Facility
- Nursing Home
- Retirement Residence

NOTE: All references to buildings, parking and landscaped space is shown as conceptual, only to support a Zoning By-Law Amendment Application. All blocks are subject to change, until such time as a Site Plan Application is filed.

NOTE: "Stacked, Back-to-Back Townhouse Dwelling" meaning, any dwelling unit within a building containing four (4) or more dwelling units divided by horizontal and vertical common walls, above grade, including a rear common wall.



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10242 GLENDON DRIVE
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**ZONING TO ACCOMPANY DRAFT
PLAN OF SUBDIVISION**

CON 2 S PT LOT 7
10242 GLENDON DRIVE
KOMOKA, ONTARIO N0L 1R0

PROPOSED ZONING TABLES

ZONE THREE

To permit all uses outlined in Zone Two plus
Village Commercial from Zone 4 AND Apartment as shown below

| APARTMENT | | |
|-------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|
| UR3 - VARIANT | REQUIRED | REQUESTED |
| Lot Frontage (min) | 30 m | 30 m |
| Lot Area | 250 m ² / unit (1-4) + 100 m ² / additional unit | 250 m ² / unit (1-4) + 100 m ² / additional unit |
| Lot Depth | 35 m | 35 m |
| Unit Frontage | - | - |
| FY Setbacks (Dwelling) | 6 m | 6 m |
| SY Setback (Interior) | 10 m | 8 m |
| SY Setback (Exterior) | 10 m | 8 m |
| RY Setback (Dwelling) | 8 m | 8 m |
| Min Ground Floor Area (unit) | as outlined 10.1.8 | as outlined 10.1.8 |
| Maximum Height | 20 m (66 feet) | 28 m (91.8 feet) |
| Preferred Storey Height (max) | - | 9 Storey |
| Coverage (Dwelling) | 35% | 40% |
| Density | 30 UPH | 150 UPH |
| Number of units (min / block) | - | - |

Permitted Uses in C1

Minor Commercial
Business Office
Medical Office
Day Care Facility
Pharmacy
Fast Food
Restaurant
Assisted Living Facility
Retirement Residences
Long Term Care Facility

C1 Additional Permitted Uses:

Long-term Care Facility
Nursing Home
Retirement Residence

Other permissances:

- To permit any of the land uses on the ground floor of any building.
- To permit separate pads for commercial square footage.
- To above: Not every building must be a mix of uses and could be either commercial OR residential within this block.

C1 to be added to this block to provide flexibility and a broader range of uses based on market demand. Developer requests NON-mandatory requirement to use the C1 Zone on this block specifically.

NOTE: All references to buildings, parking and landscaped space is shown as conceptual, only to support a Zoning By-Law Amendment Application. All blocks are subject to change, until such time as a Site Plan Application is filed.

NOTE: "Stacked, Back-to-Back Townhouse Dwelling" meaning, any dwelling unit within a building containing four (4) or more dwelling units divided by horizontal and vertical common walls, above grade, including a rear common wall.

UR3 / C1

STREET - A

STREET - B



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10242 GLENDON DRIVE
KOMOKA, ONTARIO, N0L1R0

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UR3 / C1

UR3

STREET - A

UR3 / C1

STREET - A

GLENDON DRIVE

CR

**ZONING TO ACCOMPANY DRAFT
PLAN OF SUBDIVISION**

CON 2 S PT LOT 7
10242 GLENDON DRIVE
KOMOKA, ONTARIO N0L 1R0

PROPOSED ZONING TABLES

ZONE FOUR

To permit all uses in Zone Two plus Apartment Use as identified below
plus Village Commercial (C1)

| VILLAGE COMMERCIAL | APARTMENT | |
|-------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|
| | REQUIRED | REQUESTED |
| Lot Frontage (min) | 30 m | 30 m |
| Lot Area | 250 m ² / unit (1-4) + 100 m ² / additional unit | 250 m ² / unit (1-4) + 100 m ² / additional unit |
| Lot Depth | 35 m | 35 m |
| Unit Frontage | - | - |
| FY Setbacks (Dwelling) | 6 m | 6 m |
| SY Setback (Interior) | 10 m | 8 m |
| SY Setback (Exterior) | 10 m | 8 m |
| RY Setback (Dwelling) | 8 m | 8 m |
| Min Ground Floor Area (unit) | as outlined 10.1.8 | as outlined 10.1.8 |
| Maximum Height | 20 m (66 feet) | 36 m (118.1 feet) |
| Preferred Storey Height (max) | - | 10 Storey |
| Coverage (Dwelling) | 35% | 45% |
| Density | 30 UPH | 150 UPH |
| Number of units (min / block) | - | - |

Permitted Uses in C1

- Minor Commercial
- Business Office
- Medical Office
- Day Care Facility
- Pharmacy
- Fast Food
- Restaurant
- Assisted Living Facility
- Retirement Residences
- Long Term Care Facility

Other permissances:

- To permit any of the land uses on the ground floor of any building.
- To permit separate pads for commercial square footage.
- To above: Not every building must be a mix of uses and could be either commercial OR residential within this block.

NOTE: All references to buildings, parking and landscaped space is shown as conceptual, only to support a Zoning By-Law Amendment Application. All blocks are subject to change, until such time as a Site Plan Application is filed.

NOTE: "Stacked, Back-to-Back Townhouse Dwelling" meaning, any dwelling unit within a building containing four (4) or more dwelling units divided by horizontal and vertical common walls, above grade, including a rear common wall.



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ZONING PLAN OF SUBDIVISION
10242 GLENDON DRIVE
KOMOKA, ONTARIO, N0L1R0

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Sifton Properties Limited
Planning Justification Report
10242 Glendon Drive

APPENDIX C

Servicing & Stormwater Management Report



10242 Glendon Drive Subdivision

Servicing & Stormwater Management Report

Project Location:

10242 Glendon Drive, Komoka, ON

Prepared for:

Sifton Properties Limited
London , ON

Prepared by:

MTE Consultants Inc.
1061 Hargrieve Road
London, ON N6E1P6

May 27, 2025

MTE File No.: 55926-100



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- Appendix 4 Storm Servicing Information

1.0 INTRODUCTION

MTE Consultants Inc. (MTE) was retained by Sifton Properties Limited to complete a Servicing Report for 10242 Glendon Drive. The development is a residential subdivision development approximately 17.81Ha in size.

The site is located at the north-west of the Glendon Drive and Crestview Drive in the Komoka Ontario. The property is bounded to the north by CN Railway property, to the west by existing agricultural and commercial land, and to the east by agricultural and institutional lands.

This report details the municipal service (water, sanitary, storm) for the proposed development. A Location Plan for the proposed site is included in **Appendix 1**.

Background Documents

The following background materials were reviewed and referenced for the subject development:

- Middlesex Centre Settlement Area Stormwater Master Plan (Stantec, 2020)
- Preliminary Geotechnical Investigation (EXP, 2023)
- Preliminary Stormwater Management Strategy (Dillon, 2024)
- Phase 1 Environmental Assessment (EXP, 2023)

2.0 WATER

2.1 General

Water is available from the existing 300mm watermain on Glendon Road. Given the size of the project and proposed number of units, a looped service will be required. It is noted that the concept provided shows only one road connection to Glendon Road. If this should be the case, a secondary feed through one of the private blocks fronting onto Glendon Road will be required until such time as development of one of the neighbouring properties provides a secondary connection.

2.2 Criteria

The water distribution design criteria for the subject site, as provided by Municipality of Middlesex Centre are as follows:

- Operating pressures during all domestic scenarios shall be between 275-550 kPa;
- Operating pressures shall not fall below 140 kPa during the Max Day + Fire Flow Scenario; and
- Demands and material properties shall be designed in accordance with the Municipality of Middlesex Centre Design Criteria

2.2.1 Existing Conditions and Infrastructure

- Proposed grades within the subdivision vary between 247.81 and 251.69 masl.;
- The proposed subdivision will connect to:
 - Existing 300mm watermain on Glendon Drive

- A 300mm stub will be installed on Glendon Drive at Street “A” and a 300mm stub will be installed in front of Block 21 to be looped through Block 21 and Block 19 connecting to a 300mm watermain on Street ‘B’.
- A hydrant test was provided by the Municipality located at Tunks Lane near the Glendon Road Intersection.

2.2.2 Capacity

As detailed in this report, the existing water distribution infrastructure can supply the required domestic and fire suppression flows at pressures which meet or exceed the Municipality’s minimum requirements

2.2.3 External Works

No external water works are required for this development.

2.2.4 Effect of Development on Existing Infrastructure

No negative effects or conflicts with the existing infrastructure are anticipated as a result of the proposed development. Future development to the east and west will provide an additional loop between the proposed stubs.

2.2.5 Oversizing

No oversizing of infrastructure is required for this project.

2.2.6 Water system Area Plans

A ‘Watermain Layout Figure’, **Figure 2.1**, is attached in **Appendix 2**.

2.2.7 Water Network Analysis

Modelling of the proposed subdivision has been completed and is further described in the following sections.

2.2.8 Water Services

Proposed water services for the residential lots will be 25mm PEX as per Municipal standards.

2.3 Water Distribution Modelling

The water distribution modelling for the site was completed using WaterCAD. The site was modelled using a series of nodes connected by pipes. Demands were applied at the nodes and attributes assigned to the connecting pipes in keeping with City standards.

Future connections to the lands east and west of the development have been provided for. Demands for the future residential areas north of the site were considered conceptually. Future development to the east will provide a loop between the proposed stubs on Street ‘B’ and Glendon Drive and the future development to the west will provide a loop between the stub on Street ‘B’ and Tunks Lane.

Water supply was modelled as one reservoir situated at the connection point to the existing system. A rough sketch of the model network is included along with detailed calculations and modelling result summaries. Modelling assumptions and rationale are detailed further in the following sections.

2.3.1 Water Supply

Water supply for the proposed subdivision was modelled as 1 reservoir based on a hydrant flow test which was obtained from the Municipality. The test was completed at an existing hydrant on Tunks Lane near the Glendon Road Intersection. Refer to **Appendix 2** for the hydrant flow test report.

- Based on the hydrant test and adjusting for elevation changes the following data was inputted into model (see **Appendix B**):

| Scenario | Flow (L/s) | Head (m) |
|------------------------|------------|----------|
| Shutoff | 0.00 | 33.17 |
| Residual | 90.72 | 21.85 |
| Max Operation (20 psi) | 139.56 | 8.07 |

2.3.2 Demands

The proposed internal network was modelled as a series of nodes and pipes. The nodes were placed at strategic locations within the proposed site and future development. Demands were assigned to the nodes based on their proximity to the surrounding lots. Demands were assigned to nodes based on the number of units in the vicinity, a population of 3 & 2.4 persons per low density and medium density units respectively, and an average day consumption of 350 L per person. Peaking factors of 2.0 and 3.0 were used for the max day and peak hour scenarios respectively in keeping with Municipal standards. Detailed demand calculations are included in **Appendix 2**.

2.4 Results

2.4.1 Domestic and Fire Flows (Including Future Developments)

AVERAGE DAY

Under this scenario, the minimum pressure in the system was computed to be 309 kPa (>275 kPa minimum required). Future demands were included, full summary modelling results are included in **Appendix 2**.

PEAK HOUR

Under this scenario, the minimum pressure in the Phase 3 system was computed to be 275 kPa (>275 kPa minimum required). Future demands were included. Full summary modelling results are included in **Appendix 2**.

MAX DAY + FIRE

For maximum day + fire 12 scenarios were completed applying a fire flow of 76.00L/s at each of the 9 proposed hydrant locations and 80 L/s at the medium density nodes (J-21, J-22 & J-23), as shown on 'Fire Flow Results' table below. A fire flow analysis was completed to determine the maximum fire flow available using a maximum velocity constraint of 2.4 m/s and minimum pressure constraint of 140 kPa. The result of each scenario is outlined below. Full summary modelling results are included in **Appendix 2**.

Fire Flow Results

| Node | Available Flow (L/s) | Min Flow (L/s) | Max. Velocity (m/s) | Max. Allowed Velocity (m/s) |
|-------|----------------------|----------------|---------------------|-----------------------------|
| HYD-1 | 80.09 | 76.0 | 1.62 | 2.40 |
| HYD-2 | 79.71 | 76.0 | 1.61 | 2.40 |
| HYD-3 | 79.47 | 76.0 | 1.61 | 2.40 |
| HYD-4 | 79.71 | 76.0 | 1.99 | 2.40 |
| HYD-5 | 79.95 | 76.0 | 1.62 | 2.40 |
| HYD-6 | 79.48 | 76.0 | 1.61 | 2.40 |
| HYD-7 | 78.19 | 76.0 | 1.59 | 2.40 |
| HYD-8 | 77.73 | 76.0 | 1.59 | 2.40 |
| HYD-9 | 76.67 | 76.0 | 1.57 | 2.40 |
| J-21 | 81.21 | 80.0 | 1.62 | 2.40 |
| J-22 | 82.16 | 80.0 | 1.62 | 2.40 |
| J-23 | 85.11 | 80.0 | 1.62 | 2.40 |

2.5 Quality Turnover

Quality turnover was modelled as an age analysis with a maximum allowable age of 72 hrs. The max age in the system was determined for full buildout of the site and future adjacent sites to the east and west. At full buildout the maximum age within the system was modelled to be approximately 14.3 hrs at J-16.

3.0 SANITARY

3.1 General

The site was accounted for in the design of the sanitary sewer system on Crestview Drive. As per the sanitary drainage area plan prepared for the Kilworth Heights West Subdivision (ENG PLUS, 2018), refer to **Appendix 3**, the site was accounted for with a population of 3486, which is approximately 100 persons per hectare. Given the size of the site a total population of 1781 persons would have been allocated for the site.

Sanitary servicing is proposed to be provided by connection to the existing 300mm sanitary sewer on Crestview Drive at Glendon Drive. (Refer to **Figure 3.1** in **Appendix 3**)

3.2 Proposed Design Flow

Based on the proposed sites land use the peak flows in the design of the local sewers was 32.69L/s. (Refer to the table and calculations on below)

| Land Use | Area (Ha.) | Unit per Ha. | Units | People per Unit | Total Population |
|-------------------|------------|--------------|-------|-----------------|------------------|
| Single Family | 3.90 | 30 | 117 | 3.0 | 351 |
| Street Townhomes | 1.45 | 75 | 109 | 2.4 | 262 |
| Cluster Townhomes | 3.94 | 75 | 296 | 2.4 | 711 |
| Mixed Use | 2.06 | 75 | 155 | 2.4 | 372 |
| Totals | | | | | 1696 |

Using the Municipal standard consumption rate of 350 L/person/day and a peaking factor of 4.5, a peak sanitary flow of:

$$1696 \text{ persons} \times 350 \text{ L/day} / 86,400 \text{ s/day} \times 4.5 = 30.91 \text{ L/s}$$

Infiltration is considered using the Municipal standard of 8640 L/ha/day:

$$17.81 \text{ ha} \times 8640 \text{ L/ha/day} / 86,400 \text{ s/day} = 1.78 \text{ L/s}$$

As the proposed population is less than the allocated population per Kilworth Heights Subdivision sanitary sewer design, no negative downstream impacts are anticipated.

4.0 STORMWATER

4.1 Criteria

The stormwater management design criteria for the subject site, as provided by the Municipality of Middlesex Centre and the Upper Thames River Conservation Authority (UTRCA) are as follows:

- Attenuation of the post-development peak flows for the 25mm through 100-year storm events to the pre-development (existing) peak flow rates;
- Implementation of water quality controls to provide Level 1 (enhanced) treatment levels as per the MOECC SWM Practices Planning and Design Manual (2003); and

4.2 Methodology

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

- Determined the allowable/pre-development flow rates;
- Estimated the percent impervious of the site and catchment area parameters for inclusion in hydrologic modelling;
- Preliminary design of proposed SWM facility; and
- Modelling and design of controls to attain the required runoff rates.

4.3 Allowable/Pre-development Flow Rate

The site currently consists primarily of an undeveloped agricultural field which drains west to an adjacent woodlot and east to existing agricultural field. Runoff from the proposed site is to be captured and conveyed to the proposed SWM facility located at the north west end of the site. The proposed pond is intended to be a constructed dry SWM facility.

Pre-development conditions of the site were modelled using SWMHYMO modelling software to capture the existing drainage conditions of the site and the resulting flow rates to the wetland. Pre-development modelling information is further discussed in the sections below.

4.3.1 Topographical Information

A topographical survey of the site was completed by Trueline Service Inc. in April of 2025. Existing elevations across the site range from 251.80 in the northeast to 244.78 in the west. The site has undulating topography, with the overall fall towards the west property line and a smaller catchment area to the east.

4.3.2 Geotechnical Information

A geotechnical investigation of the site was completed by EXP. in September of 2023. The investigation consisted of the drilling of 11 boreholes within the site to depths ranging from 5.0m to 6.6m. The borehole data collected indicated the surficial topsoil depths ranged from 0.075m to 0.53m in depth (average ~0.41m). Sub-surface soils are generally comprised of sand and gravel with trace silt.

4.3.3 Hydro-geotechnical Information

As part of the geotechnical investigation, 4 monitoring wells were installed around the perimeter of the site and stabilized water elevations were recorded. The recorded elevations range from 242.94.0-246.25 and indicate a hydraulic gradient to the southeast.

4.3.4 Pre-Development Modelling

The following table summarizes the catchments used in the modelling of the site. The predevelopment condition was separated into 2 catchment areas representing the existing field (catchments 101-102). Catchment 101 represents the west side of the field which drains to the west limit of the woodlot, catchment 102 represents the east side of the field which drains to the adjacent agricultural property to the east. **Figure 4.1** illustrates the limits of the predevelopment catchment areas internal to the site.

Table 4-1 - Pre-Development Catchment Parameters

| No. | Catchment | Area (ha) | % Impervious | Pervious CN | Impervious CN | Slope (%) | Flow Length (m) |
|-----|----------------------------|-----------|--------------|-------------|---------------|-----------|-----------------|
| 101 | TRIBUTARY WEST OF PROPERTY | 14.66 | 0 | 75 | 98 | 0.93 | 525 |
| 102 | TRIBUTARY EAST OF PROPERTY | 3.16 | 0 | 75 | 98 | 0.77 | 210 |

Resulting Peak flow rates to the existing woodlot and adjacent lands to the east are summarized in the table below. These flow rates will serve as the target flow rates for the post development condition. Modelling output files are provided in **Appendix 4**.

Table 4-2 - Pre-Development Flow Rates

| No. | 25mm | 2-year | 5-year | 10-year | 25-year | 50-year | 100-year |
|----------------------------|-------|--------|--------|---------|---------|---------|----------|
| Total to EP1 (Area 101) | 0.076 | 0.156 | 0.293 | 0.404 | 0.553 | 0.672 | 0.798 |
| To EP2 (Area 102) | 0.021 | 0.044 | 0.084 | 0.117 | 0.160 | 0.195 | 0.232 |

4.4 Proposed SWM Strategy

4.4.1 General SWM Approach

The SWM strategy for the proposed development will be to capture a majority of the runoff from the proposed site and direct it toward the proposed dry SWM pond facility. Internal grading will be designed to direct minor system runoff to an internal storm sewer system while overland flow routes will be provided in the case of major system events. The proposed SWM facility will be designed to provide quality and quantity control for the entire site.

4.4.2 Quality Control

The proposed SWM facility has been designed as a dry pond with an active storage depth of 2.2m and a free board of 0.30m. As part of the ultimate solution, the pond could be designed as a dry pond facility with an infiltration component to achieve quality control and water balance for the site. The Infiltration could be used as the primary outlet for the facility, as explained in the 'Quantity Control' section.

An OGS will be incorporated into the storm system upstream of the dry pond to pre-treat events up to the 2-year storm sized to provide an enhanced level of control for the site. Since the majority of annual rainfall occurs in storms less than or equal to a 25mm event, the majority of water borne sediment is also transported to the stormwater management facilities in these less intense events. Furthermore, since larger storm events will have greater peak flows, there is potential for re-suspension of accumulated sediment within the OGS. To achieve this objective, it is proposed that the overland flows generated by major events be directed into the dry pond directly.

4.4.3 Quantity Control

Flows for all storm events will be conveyed to the stormwater management facility by a combination of storm sewer and overland flow route. Detailed design calculations and the post-development SWMHYMO design event modeling output are included in **Appendix 4**.

This facility contains an outlet control weir structure to control events up to the 250-year event and will be designed as part of the detailed engineering of the pond.

Infiltration through the bottom of the SWM facility will be used as the primary outlet for the facility, up to the 100-year storm event. It was noted in the geotechnical investigation that moderate to

significant rates of infiltration were to be expected during excavation below the groundwater table. Thus, it is assumed that the native soils have high hydraulic conductivity. For the purposes of this analysis a factored infiltration rate of 15mm/hr was assumed (minimum recommended for infiltration measures). Based on the conceptual pond area and infiltration rate, a flow rate of 26L/s can be achieved via infiltration.

The infiltration is represented as EP1 on **Figure 4.3** and EP2 represents any overflow to the adjacent woodlot in events that exceed 100-year event up to a 250-year event. The stage storage discharge relationship of the pond is summarized in **Table 4-3**.

The peak storage, and outflow for the conceptual facility during the various design storms are shown in **Table 4-4**. Design parameters for the facility are summarized in **Table 4-5** and the location of the proposed facility is provided in **Figure 4.2**.

Table 4-3 – Pond Stage Storage Discharge Summary

| Stage (masl) | Peak Storage (m ³) | Discharge (infiltration) (L/s) |
|--------------|--------------------------------|--------------------------------|
| 246.50 | 0.00 | 0.00 |
| 246.55 | 312.10 | 25.67 |
| 247.00 | 3154.05 | 25.67 |
| 247.50 | 7486.00 | 25.67 |
| 247.70 | 10103.9 | 25.67 |

As per the 'Preliminary Geotechnical Investigation' by EXP dated September 1, 2023, the high groundwater elevation in the general area of the proposed SWM facility is 243.08m, which is 3.42m below the bottom of pond. Based on this preliminary information, there should not be any ground water concerns.

Table 4-4 – Proposed Event Model Output

| Storm Event | Peak Storage Requirement (m ³) | Peak Outflow (Infiltration) (L/s) |
|-------------|--------------------------------------------|-----------------------------------|
| 25 mm | 2,068 | 26.0 |
| 2 Year | 3,152 | 26.0 |
| 5 Year | 4,720 | 26.0 |
| 10 Year | 5,849 | 26.0 |
| 25 Year | 7,248 | 26.0 |
| 50 Year | 8,345 | 26.0 |
| 100 Year | 9,440 | 26.0 |

Table 4-5 – SWM Facility Design Characteristics

| General | Facility Characteristics |
|---------------------------------------|---------------------------------|
| | |
| Stormwater Management Facility Type | Dry Pond |
| Required MOE Water Quality Protection | Enhanced |
| Total Contributing Area | 17.33 ha |
| Imperviousness (Average) | 44.6% |
| Bottom Elevation | 246.50 |

4.4.4 Major and Minor Flow Routing

Based on the layout of the proposed subdivision, overland flow from the proposed road and Blocks will be required to flow through a proposed maintenance access block fronting the SWM block in order to reach the proposed SWM facility. Therefore, the grading and layout of proposed maintenance access block will need to be designed to provide a corridor which will accommodate major and minor flows from the upstream areas through the property.

Minor flows will be collected and conveyed west along the roads to the proposed SWM pond via storm sewers. Major flows from the road will be conveyed overland within the proposed ROW.

5.0 CONCLUSIONS

Based on the foregoing analysis, it is concluded that:

- i. the proposed development can be adequately serviced by the existing sanitary sewer on Glendon Drive
- ii. the proposed development will be serviced by the existing 300mm watermain feed from Glendon Drive. Additional looping will be provided for the area once the adjacent lands to the east and west are developed;
- iii. the proposed stormwater management design provides adequate attenuation of the 2 through 100-year storm events and provides adequate water quality control for the proposed site.

It is recommended that:

- iv. the site grading be designed to convey major system runoff to the SWM facility and minimizes cut/fill requirements for the site;
- v. the proposed servicing measures be fully designed and detailed as part of the detailed design process to the satisfaction of the Municipality of Middlesex Centre.

All of which is respectfully submitted,

MTE Consultants Inc.

Joshua Monster, P.Eng.

Design Engineer

519-743-6500 ext. 555

jmonster@mte85.com

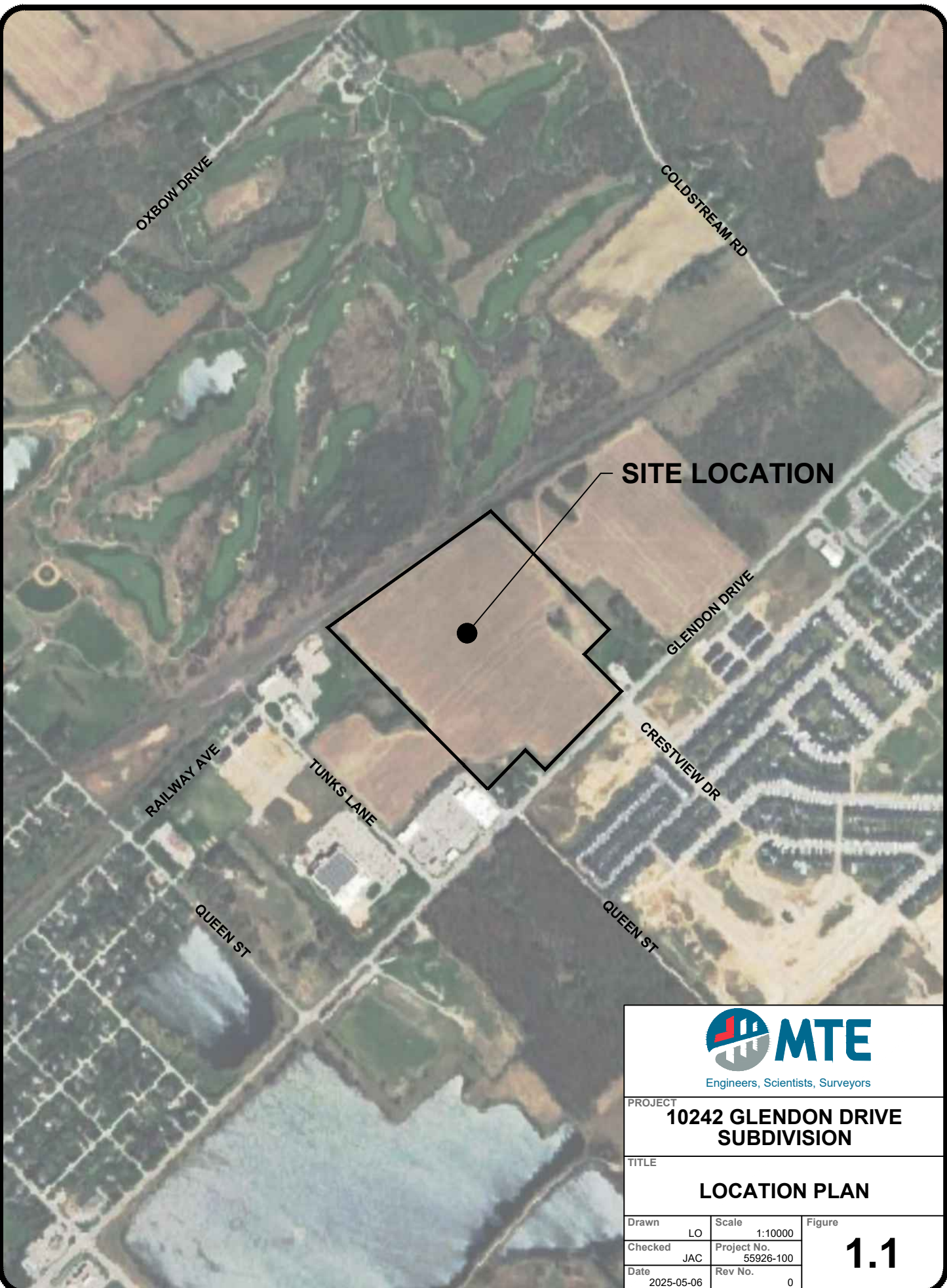
JJM:xxx

Document1



Appendix 1

Location Plan



SITE LOCATION



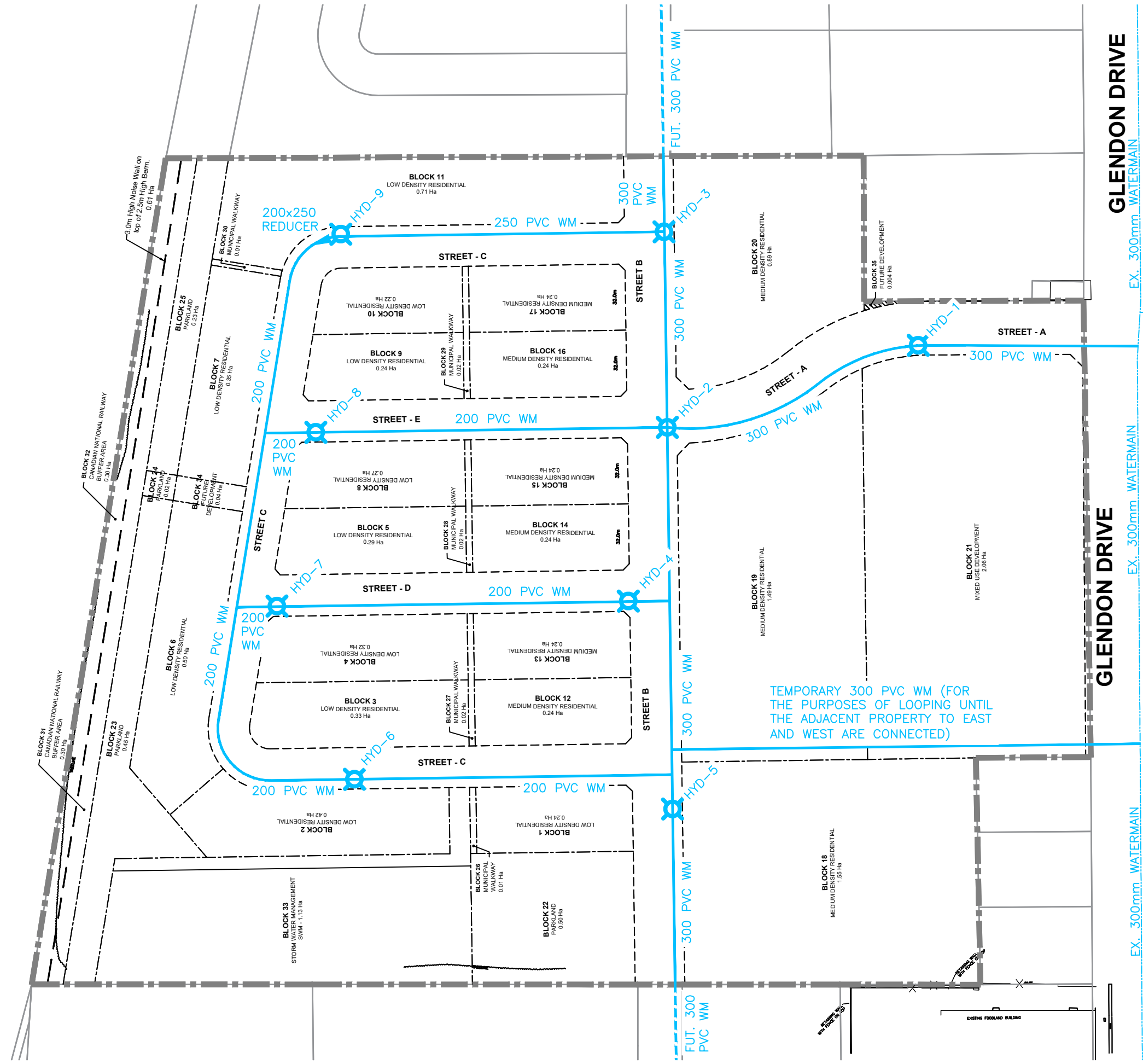
PROJECT
**10242 GLENDON DRIVE
SUBDIVISION**

TITLE
LOCATION PLAN

| | | | | |
|---------|------------|-------------|-----------|----------------------|
| Drawn | LO | Scale | 1:10000 | Figure 1.1 |
| Checked | JAC | Project No. | 55926-100 | |
| Date | 2025-05-06 | Rev No. | 0 | |

Appendix 3

Water Servicing Information




GLENDON DRIVE
EX. 300mm WATERMAIN

GLENDON DRIVE
EX. 300mm WATERMAIN

EX. 300mm WATERMAIN

EX. 300mm WATERMAIN
CRESTVIEW DRIVE

| | | |
|---------------------------------------------------------------------------------------------------------------------------|------------|-----------------------|
|  Engineers, Scientists, Surveyors | | |
| PROJECT | | |
| 10242 GLENDON DRIVE SUBDIVISION | | |
| TITLE | | |
| WATERMAIN LAYOUT | | |
| Drawn | LO | Scale 1:2000 |
| Checked | JAC | Project No. 55926-100 |
| Date | 2025-05-06 | Rev No. 0 |
| | | 2.1 |



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

DATE: May 27, 2025
JOB NO.: 55926-100

Project: 10242 Glendon Drive
Location: Komoka ON

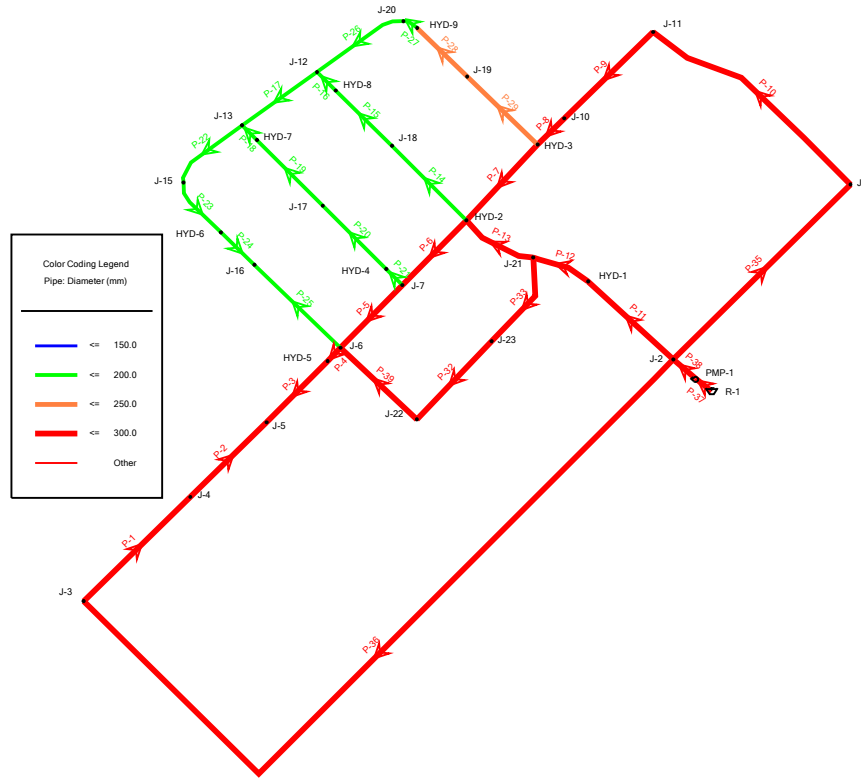
Water Demand Calculation

| Building | Approximate Surface Elevation (mASL) | Approximate Elevation (mASL) | Node | Residential (Low Density) | | | | | | | Residential (Medium Density) | | | | | Demand Summary | | |
|------------------------------|--------------------------------------|------------------------------|------|---------------------------|----------|-----------|-------------|-----------|-----------------------|-------------|------------------------------|-----------|-------------|-----------|-----------------------|----------------|---------------|----------------|
| | | | | Area (ha.) | Units/ha | PPI/Units | Pop | L/day/cap | Avg. Day Demand (l/s) | Area (ha.) | Units/ha | PPI/Units | Pop | L/day/cap | Avg. Day Demand (l/s) | Avg. Day (l/s) | Max Day (l/s) | Max Hour (l/s) |
| Adjacent Lands to the West | 242.74 | 241.04 | J-4 | 10.39 | 33.3 | 3.0 | 1038 | 350 | 4.21 | 0.00 | 75 | 2.4 | 0 | 350 | 0.00 | 4.21 | 8.42 | 12.63 |
| Adjacent Lands to the East | 247.90 | 246.2 | J-11 | - | - | - | 1482 | 350 | 6.01 | - | - | - | 0 | 350 | 0.00 | 6.01 | 12.02 | 18.03 |
| Street C | 251.44 | 249.74 | J-12 | 0.76 | 30 | 3.0 | 69 | 350 | 0.28 | 0.00 | 75 | 2.4 | 0 | 350 | 0.00 | 0.28 | 0.56 | 0.84 |
| Street C | 251.01 | 249.31 | J-13 | 0.90 | 30 | 3.0 | 81 | 350 | 0.33 | 0.00 | 75 | 2.4 | 0 | 350 | 0.00 | 0.33 | 0.66 | 0.99 |
| Street C | 250.43 | 248.73 | J-15 | 0.96 | 30 | 3.0 | 87 | 350 | 0.36 | 0.00 | 75 | 2.4 | 0 | 350 | 0.00 | 0.36 | 0.72 | 1.08 |
| Street C | 248.68 | 246.98 | J-16 | 0.24 | 30 | 3.0 | 22 | 350 | 0.09 | 0.24 | 75 | 2.4 | 44 | 350 | 0.18 | 0.27 | 0.54 | 0.81 |
| Street D | 250.49 | 248.79 | J-17 | 0.00 | 30 | 3.0 | 0 | 350 | 0.00 | 0.48 | 75 | 2.4 | 87 | 350 | 0.36 | 0.36 | 0.72 | 1.08 |
| Street E | 250.36 | 248.66 | J-18 | 0.00 | 30 | 3.0 | 0 | 350 | 0.00 | 0.48 | 75 | 2.4 | 87 | 350 | 0.36 | 0.36 | 0.72 | 1.08 |
| Street C | 250.9 | 249.2 | J-19 | 0.25 | 30 | 3.0 | 23 | 350 | 0.10 | 0.24 | 75 | 2.4 | 44 | 350 | 0.18 | 0.28 | 0.56 | 0.84 |
| Street C | 251.76 | 250.06 | J-20 | 0.79 | 30 | 3.0 | 72 | 350 | 0.30 | 0.00 | 75 | 2.4 | 0 | 350 | 0.00 | 0.30 | 0.60 | 0.90 |
| Street A | 249.94 | 248.24 | J-21 | 0.00 | 30 | 3.0 | 0 | 350 | 0.00 | 0.89 | 75 | 2.4 | 161 | 350 | 0.66 | 0.66 | 1.32 | 1.98 |
| Medium Density Block 18 | 249.57 | 247.87 | J-22 | 0.00 | 30 | 3.0 | 0 | 350 | 0.00 | 1.55 | 75 | 2.4 | 279 | 350 | 1.14 | 1.14 | 2.28 | 3.42 |
| Medium Density Block 19 & 21 | 249.98 | 248.28 | J-23 | 0.00 | 30 | 3.0 | 0 | 350 | 0.00 | 3.58 | 75 | 2.4 | 645 | 350 | 2.62 | 2.62 | 5.24 | 7.86 |
| Total | | | | 14.29 | | | 2874 | | 11.68 | 7.46 | | | 1347 | | 5.50 | 17.18 | 34.36 | 51.54 |

Design Specifications and Requirements Manual

Max Day Factor = 2.00
Peak Hour Factor = 3.00

Scenario: Maximum Day + Fire Flow



Hydrant Test (Model Pump Data)

| | | | |
|--------------|--------|---------------|--------|
| Elev. At HYD | 241.84 | Elev. At Main | 247.83 |
|--------------|--------|---------------|--------|

| Scenario | Flow (L/s) | Head (m) |
|----------------|------------|----------|
| Shutoff | 0 | 33.17 |
| Design | 90.72 | 21.85 |
| Max. Operation | 139.56 | 8.07 |



FLOWMETRIX
INDU-TECH
PROCESS

Fire Flow Testing Report

Residual Hydrant #
N.F.P.A. Colour Code

Ko-38
BLUE

DATE: May 16, 2022
TIME: 3:15 PM
ADDRESS: Tunks Lane @ Glendon
SETTLEMENT AREA: Komoka

MAKE: Canada Valve
MODEL: Century

RESIDUAL HYDRANT INFO.

HYDRANT #: Ko-38
N.F.P.A. COLOUR CODE: BLUE

STATIC PRESSURE: 55.7 psi
RESIDUAL PRESSURE: 39.6 psi

PRESSURE DROP: 16.1 psi
% PRESSURE DROP: 28.9 % psi

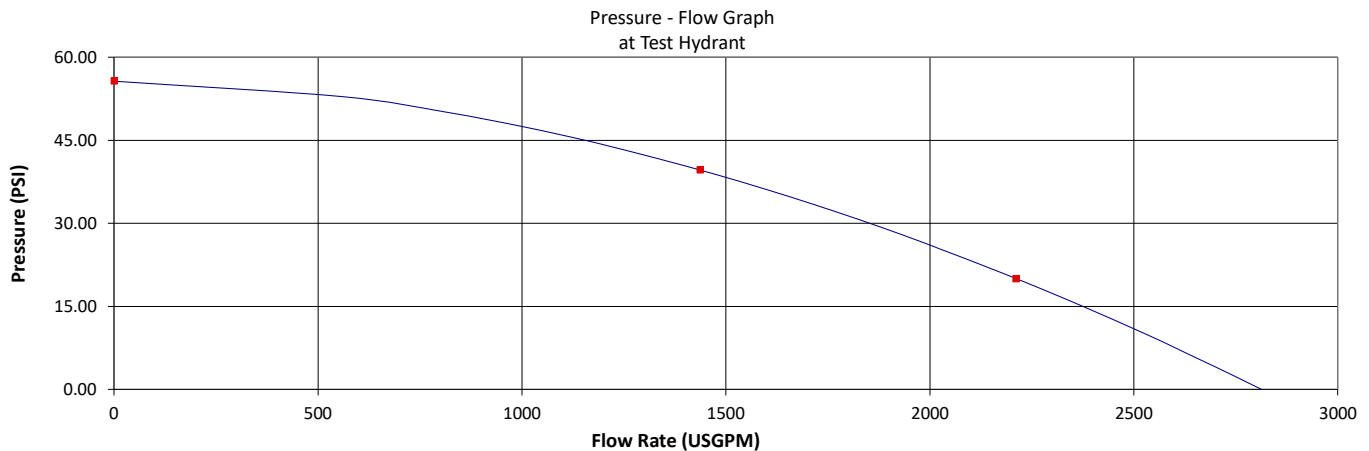
Flow on Water Main At Test Hydrant @ 20 psi: 2212 USGPM



FLOW HYDRANT(S) INFO.

| HYDRANT ASSET ID | HYD. # PORTS | OUTLET DIAMETER (INCHES) | NOZZLE COEFFICIENT | DIFFUSER TYPE | DIFFUSER COEFFICIENT | PITOT READING (psi) | PITOT FLOW (USGPM) | TOTAL VOLUME OF WATER (Gal) |
|------------------|--------------|--------------------------|--------------------|---------------|----------------------|---------------------|--------------------|-----------------------------|
| Ko-109 | 2 | 2.5 | Round | LPD250 | 0.90 | 22.7 | 1438 | 1140 |
| | | 2.5 | Round | LPD250 | 0.90 | 22.7 | 0 | 1140 |
| Total Flow | | | | | | | 1438 | 2280 |

FIRE FLOW CHART



COMMENTS

OPERATOR
OPERATOR
OPERATOR

FMX
FMX

Jordan Whitlock
Ryan Ritchie

10242 Glendon Drive Subdivision
Average Day Demand Scenario
Junction Table - Time: 0.00 hours

| Label | Elevation (m) | Demand (L/s) | Hydraulic Grade (m) | Pressure (kPa) | Age (Maximum) (hours) | Block ID |
|-------|---------------|--------------|---------------------|----------------|-----------------------|----------|
| HYD-1 | 247.87 | 0.00 | 281.47 | 329 | (N/A) | |
| HYD-2 | 247.69 | 0.00 | 281.47 | 331 | (N/A) | |
| HYD-3 | 248.02 | 0.00 | 281.47 | 327 | (N/A) | |
| HYD-4 | 247.65 | 0.00 | 281.47 | 331 | (N/A) | |
| HYD-5 | 246.84 | 0.00 | 281.46 | 339 | (N/A) | |
| HYD-6 | 247.72 | 0.00 | 281.47 | 330 | (N/A) | |
| HYD-7 | 249.22 | 0.00 | 281.47 | 316 | (N/A) | |
| HYD-8 | 249.47 | 0.00 | 281.47 | 313 | (N/A) | |
| HYD-9 | 249.90 | 0.00 | 281.47 | 309 | (N/A) | |
| J-1 | 249.20 | 0.00 | 281.47 | 316 | (N/A) | |
| J-2 | 247.18 | 0.00 | 281.47 | 336 | (N/A) | |
| J-3 | 240.36 | 0.00 | 281.47 | 402 | (N/A) | |
| J-4 | 241.04 | 4.21 | 281.47 | 396 | (N/A) | |
| J-5 | 246.25 | 6.01 | 281.46 | 345 | (N/A) | |
| J-6 | 246.96 | 0.00 | 281.47 | 338 | (N/A) | |
| J-7 | 247.36 | 0.00 | 281.47 | 334 | (N/A) | |
| J-10 | 248.20 | 0.00 | 281.47 | 326 | (N/A) | |
| J-11 | 246.20 | 0.00 | 281.47 | 345 | (N/A) | |
| J-12 | 249.74 | 0.28 | 281.47 | 311 | (N/A) | |
| J-13 | 249.31 | 0.33 | 281.47 | 315 | (N/A) | |
| J-15 | 248.73 | 0.36 | 281.47 | 320 | (N/A) | |
| J-16 | 246.98 | 0.27 | 281.47 | 337 | (N/A) | |
| J-17 | 248.79 | 0.36 | 281.47 | 320 | (N/A) | |
| J-18 | 248.66 | 0.36 | 281.47 | 321 | (N/A) | |
| J-19 | 249.20 | 0.28 | 281.47 | 316 | (N/A) | |
| J-20 | 250.06 | 0.30 | 281.47 | 307 | (N/A) | |
| J-21 | 248.24 | 0.66 | 281.47 | 325 | (N/A) | |
| J-22 | 247.87 | 1.14 | 281.47 | 329 | (N/A) | |
| J-23 | 248.28 | 2.62 | 281.47 | 325 | (N/A) | |

10242 Glendon Drive Subdivision
Average Day Demand Scenario
Pipe Table - Time: 0.00 hours

| Label | Length (m) | Start Node | Stop Node | Diameter (mm) | Hazen-Williams C | Velocity (m/s) |
|-------|------------|------------|-----------|---------------|------------------|----------------|
| P-1 | 139 | J-3 | J-4 | 300.0 | 120.0 | 0.11 |
| P-2 | 99 | J-4 | J-5 | 300.0 | 120.0 | 0.05 |
| P-3 | 80 | J-5 | HYD-5 | 300.0 | 110.0 | 0.04 |
| P-4 | 17 | HYD-5 | J-6 | 300.0 | 110.0 | 0.04 |
| P-5 | 82 | J-6 | J-7 | 300.0 | 120.0 | 0.04 |
| P-6 | 85 | J-7 | HYD-2 | 300.0 | 120.0 | 0.04 |
| P-7 | 97 | HYD-2 | HYD-3 | 300.0 | 120.0 | 0.03 |
| P-8 | 35 | HYD-3 | J-10 | 300.0 | 120.0 | 0.05 |
| P-9 | 115 | J-10 | J-11 | 300.0 | 120.0 | 0.05 |
| P-10 | 235 | J-11 | J-1 | 300.0 | 120.0 | 0.05 |
| P-11 | 107 | J-2 | HYD-1 | 300.0 | 120.0 | 0.09 |
| P-12 | 56 | HYD-1 | J-21 | 300.0 | 120.0 | 0.09 |
| P-13 | 73 | J-21 | HYD-2 | 300.0 | 120.0 | 0.02 |
| P-14 | 98 | HYD-2 | J-18 | 200.0 | 110.0 | 0.02 |
| P-15 | 73 | J-18 | HYD-8 | 200.0 | 110.0 | 0.01 |
| P-16 | 25 | HYD-8 | J-12 | 200.0 | 110.0 | 0.01 |
| P-17 | 86 | J-12 | J-13 | 200.0 | 110.0 | 0.02 |
| P-18 | 19 | J-13 | HYD-7 | 200.0 | 110.0 | 0.00 |
| P-19 | 86 | HYD-7 | J-17 | 200.0 | 110.0 | 0.00 |
| P-20 | 83 | J-17 | HYD-4 | 200.0 | 110.0 | 0.02 |
| P-21 | 21 | HYD-4 | J-7 | 200.0 | 110.0 | 0.02 |
| P-22 | 79 | J-13 | J-15 | 200.0 | 110.0 | 0.02 |
| P-23 | 60 | J-15 | HYD-6 | 200.0 | 110.0 | 0.01 |
| P-24 | 43 | HYD-6 | J-16 | 200.0 | 110.0 | 0.01 |
| P-25 | 111 | J-16 | J-6 | 200.0 | 110.0 | 0.00 |
| P-26 | 95 | J-12 | J-20 | 200.0 | 110.0 | 0.02 |
| P-27 | 15 | J-20 | HYD-9 | 200.0 | 110.0 | 0.03 |
| P-28 | 65 | HYD-9 | J-19 | 250.0 | 110.0 | 0.02 |
| P-29 | 91 | J-19 | HYD-3 | 250.0 | 110.0 | 0.03 |
| P-32 | 101 | J-22 | J-23 | 300.0 | 120.0 | 0.02 |
| P-33 | 94 | J-23 | J-21 | 300.0 | 120.0 | 0.06 |
| P-35 | 1 | J-2 | J-1 | 300.0 | 120.0 | 0.05 |
| P-36 | 1 | J-2 | J-3 | 300.0 | 120.0 | 0.11 |
| P-37 | 1 | R-1 | PMP-1 | 300.0 | 120.0 | 0.24 |
| P-38 | 1 | PMP-1 | J-2 | 300.0 | 120.0 | 0.24 |

10242 Glendon Drive Subdivision
Max Day Demand + Fire Flow Scenario
Junction Table - Time: 0.00 hours

| Label | Elevation (m) | Demand (L/s) | Hydraulic Grade (m) | Pressure (kPa) | Age (Maximum) (hours) | Block ID |
|-------|---------------|--------------|---------------------|----------------|-----------------------|----------|
| HYD-1 | 247.87 | 0.00 | 280.10 | 315 | (N/A) | |
| HYD-2 | 247.69 | 0.00 | 280.09 | 317 | (N/A) | |
| HYD-3 | 248.02 | 0.00 | 280.09 | 314 | (N/A) | |
| HYD-4 | 247.65 | 0.00 | 280.08 | 317 | (N/A) | |
| HYD-5 | 246.84 | 0.00 | 280.08 | 325 | (N/A) | |
| HYD-6 | 247.72 | 0.00 | 280.08 | 317 | (N/A) | |
| HYD-7 | 249.22 | 0.00 | 280.08 | 302 | (N/A) | |
| HYD-8 | 249.47 | 0.00 | 280.09 | 300 | (N/A) | |
| HYD-9 | 249.90 | 0.00 | 280.09 | 295 | (N/A) | |
| J-1 | 249.20 | 0.00 | 280.11 | 303 | (N/A) | |
| J-2 | 247.18 | 0.00 | 280.11 | 322 | (N/A) | |
| J-3 | 240.36 | 0.00 | 280.11 | 389 | (N/A) | |
| J-4 | 241.04 | 8.42 | 280.08 | 382 | (N/A) | |
| J-5 | 246.25 | 12.02 | 280.08 | 331 | (N/A) | |
| J-6 | 246.96 | 0.00 | 280.08 | 324 | (N/A) | |
| J-7 | 247.36 | 0.00 | 280.08 | 320 | (N/A) | |
| J-10 | 248.20 | 0.00 | 280.09 | 312 | (N/A) | |
| J-11 | 246.20 | 0.00 | 280.10 | 332 | (N/A) | |
| J-12 | 249.74 | 0.56 | 280.09 | 297 | (N/A) | |
| J-13 | 249.31 | 0.66 | 280.08 | 301 | (N/A) | |
| J-15 | 248.73 | 0.72 | 280.08 | 307 | (N/A) | |
| J-16 | 246.98 | 0.54 | 280.08 | 324 | (N/A) | |
| J-17 | 248.79 | 0.72 | 280.08 | 306 | (N/A) | |
| J-18 | 248.66 | 0.72 | 280.09 | 308 | (N/A) | |
| J-19 | 249.20 | 0.56 | 280.09 | 302 | (N/A) | |
| J-20 | 250.06 | 0.60 | 280.09 | 294 | (N/A) | |
| J-21 | 248.24 | 1.32 | 280.09 | 312 | (N/A) | |
| J-22 | 247.87 | 2.28 | 280.08 | 315 | (N/A) | |
| J-23 | 248.28 | 5.24 | 280.08 | 311 | (N/A) | |

10242 Glendon Drive Subdivision
Max Day Demand + Fire Flow Scenario
Pipe Table - Time: 0.00 hours

| Label | Length (m) | Start Node | Stop Node | Diameter (mm) | Hazen-Williams C | Velocity (m/s) |
|-------|------------|------------|-----------|---------------|------------------|----------------|
| P-1 | 139 | J-3 | J-4 | 300.0 | 120.0 | 0.21 |
| P-2 | 99 | J-4 | J-5 | 300.0 | 120.0 | 0.09 |
| P-3 | 80 | J-5 | HYD-5 | 300.0 | 110.0 | 0.08 |
| P-4 | 17 | HYD-5 | J-6 | 300.0 | 110.0 | 0.08 |
| P-5 | 82 | J-6 | J-7 | 300.0 | 120.0 | 0.08 |
| P-6 | 85 | J-7 | HYD-2 | 300.0 | 120.0 | 0.09 |
| P-7 | 97 | HYD-2 | HYD-3 | 300.0 | 120.0 | 0.07 |
| P-8 | 35 | HYD-3 | J-10 | 300.0 | 120.0 | 0.10 |
| P-9 | 115 | J-10 | J-11 | 300.0 | 120.0 | 0.10 |
| P-10 | 235 | J-11 | J-1 | 300.0 | 120.0 | 0.10 |
| P-11 | 107 | J-2 | HYD-1 | 300.0 | 120.0 | 0.17 |
| P-12 | 56 | HYD-1 | J-21 | 300.0 | 120.0 | 0.17 |
| P-13 | 73 | J-21 | HYD-2 | 300.0 | 120.0 | 0.04 |
| P-14 | 98 | HYD-2 | J-18 | 200.0 | 110.0 | 0.05 |
| P-15 | 73 | J-18 | HYD-8 | 200.0 | 110.0 | 0.02 |
| P-16 | 25 | HYD-8 | J-12 | 200.0 | 110.0 | 0.02 |
| P-17 | 86 | J-12 | J-13 | 200.0 | 110.0 | 0.05 |
| P-18 | 19 | J-13 | HYD-7 | 200.0 | 110.0 | 0.01 |
| P-19 | 86 | HYD-7 | J-17 | 200.0 | 110.0 | 0.01 |
| P-20 | 83 | J-17 | HYD-4 | 200.0 | 110.0 | 0.03 |
| P-21 | 21 | HYD-4 | J-7 | 200.0 | 110.0 | 0.03 |
| P-22 | 79 | J-13 | J-15 | 200.0 | 110.0 | 0.03 |
| P-23 | 60 | J-15 | HYD-6 | 200.0 | 110.0 | 0.01 |
| P-24 | 43 | HYD-6 | J-16 | 200.0 | 110.0 | 0.01 |
| P-25 | 111 | J-16 | J-6 | 200.0 | 110.0 | 0.01 |
| P-26 | 95 | J-12 | J-20 | 200.0 | 110.0 | 0.04 |
| P-27 | 15 | J-20 | HYD-9 | 200.0 | 110.0 | 0.06 |
| P-28 | 65 | HYD-9 | J-19 | 250.0 | 110.0 | 0.04 |
| P-29 | 91 | J-19 | HYD-3 | 250.0 | 110.0 | 0.05 |
| P-32 | 101 | J-22 | J-23 | 300.0 | 120.0 | 0.04 |
| P-33 | 94 | J-23 | J-21 | 300.0 | 120.0 | 0.11 |
| P-35 | 1 | J-2 | J-1 | 300.0 | 120.0 | 0.10 |
| P-36 | 1 | J-2 | J-3 | 300.0 | 120.0 | 0.21 |
| P-37 | 1 | R-1 | PMP-1 | 300.0 | 120.0 | 0.49 |
| P-38 | 1 | PMP-1 | J-2 | 300.0 | 120.0 | 0.49 |

10242 Glendon Drive Subdivision
Max Day Demand + Fire Flow Scenario
Fire Flow Results Table - Time: 0.00 hours

| Label | Fire Flow (Needed) (L/s) | Flow (Total Available) (L/s) | Pressure (Calculated Residual) (kPa) | Junction w/ Minimum Pressure (System) | Pressure (Calculated Zone Lower Limit) (kPa) | Pipe w/ Maximum Velocity | Velocity of Maximum Pipe (m/s) |
|-------|--------------------------|------------------------------|--------------------------------------|---------------------------------------|----------------------------------------------|--------------------------|--------------------------------|
| HYD-1 | 76.00 | 80.09 | 161 | J-20 | 140 | P-38 | 1.62 |
| HYD-2 | 76.00 | 79.71 | 163 | J-20 | 140 | P-38 | 1.61 |
| HYD-3 | 73.00 | 79.47 | 160 | J-20 | 140 | P-38 | 1.61 |
| HYD-4 | 76.00 | 79.71 | 157 | J-20 | 140 | P-21 | 1.99 |
| HYD-5 | 76.00 | 79.95 | 170 | J-20 | 140 | P-38 | 1.62 |
| HYD-6 | 76.00 | 79.48 | 144 | J-20 | 140 | P-38 | 1.61 |
| HYD-7 | 76.00 | 78.19 | 140 | J-13 | 142 | P-38 | 1.59 |
| HYD-8 | 76.00 | 77.73 | 140 | J-12 | 141 | P-38 | 1.59 |
| HYD-9 | 76.00 | 76.67 | 141 | J-20 | 140 | P-38 | 1.57 |
| J-21 | 80.00 | 81.21 | 157 | J-20 | 140 | P-38 | 1.62 |
| J-22 | 80.00 | 82.16 | 159 | J-20 | 140 | P-38 | 1.62 |
| J-23 | 80.00 | 85.11 | 155 | J-20 | 140 | P-38 | 1.62 |

10242 Glendon Drive Subdivision
Peak Hour Demand Scenario
Junction Table - Time: 0.00 hours

| Label | Elevation (m) | Demand (L/s) | Hydraulic Grade (m) | Pressure (kPa) | Age (Maximum) (hours) | Block ID |
|-------|---------------|--------------|---------------------|----------------|-----------------------|----------|
| HYD-1 | 247.87 | 0.00 | 277.98 | 295 | (N/A) | |
| HYD-2 | 247.69 | 0.00 | 277.96 | 296 | (N/A) | |
| HYD-3 | 248.02 | 0.00 | 277.96 | 293 | (N/A) | |
| HYD-4 | 247.65 | 0.00 | 277.95 | 297 | (N/A) | |
| HYD-5 | 246.84 | 0.00 | 277.94 | 304 | (N/A) | |
| HYD-6 | 247.72 | 0.00 | 277.95 | 296 | (N/A) | |
| HYD-7 | 249.22 | 0.00 | 277.95 | 281 | (N/A) | |
| HYD-8 | 249.47 | 0.00 | 277.95 | 279 | (N/A) | |
| HYD-9 | 249.90 | 0.00 | 277.96 | 275 | (N/A) | |
| J-1 | 249.20 | 0.00 | 278.01 | 282 | (N/A) | |
| J-2 | 247.18 | 0.00 | 278.01 | 302 | (N/A) | |
| J-3 | 240.36 | 0.00 | 278.01 | 369 | (N/A) | |
| J-4 | 241.04 | 12.63 | 277.95 | 361 | (N/A) | |
| J-5 | 246.25 | 18.03 | 277.94 | 310 | (N/A) | |
| J-6 | 246.96 | 0.00 | 277.95 | 303 | (N/A) | |
| J-7 | 247.36 | 0.00 | 277.95 | 299 | (N/A) | |
| J-10 | 248.20 | 0.00 | 277.97 | 291 | (N/A) | |
| J-11 | 246.20 | 0.00 | 277.98 | 311 | (N/A) | |
| J-12 | 249.74 | 0.84 | 277.95 | 276 | (N/A) | |
| J-13 | 249.31 | 0.99 | 277.95 | 280 | (N/A) | |
| J-15 | 248.73 | 1.08 | 277.95 | 286 | (N/A) | |
| J-16 | 246.98 | 0.81 | 277.95 | 303 | (N/A) | |
| J-17 | 248.79 | 1.08 | 277.95 | 285 | (N/A) | |
| J-18 | 248.66 | 1.08 | 277.95 | 287 | (N/A) | |
| J-19 | 249.20 | 0.84 | 277.96 | 282 | (N/A) | |
| J-20 | 250.06 | 0.90 | 277.96 | 275 | (N/A) | |
| J-21 | 248.24 | 1.98 | 277.96 | 291 | (N/A) | |
| J-22 | 247.87 | 3.42 | 277.95 | 294 | (N/A) | |
| J-23 | 248.28 | 7.86 | 277.95 | 290 | (N/A) | |

10242 Glendon Drive Subdivision
Peak Hour Demand Scenario
Pipe Table - Time: 0.00 hours

| Label | Length (m) | Start Node | Stop Node | Diameter (mm) | Hazen-Williams C | Velocity (m/s) |
|-------|------------|------------|-----------|---------------|------------------|----------------|
| P-1 | 139 | J-3 | J-4 | 300.0 | 120.0 | 0.32 |
| P-2 | 99 | J-4 | J-5 | 300.0 | 120.0 | 0.14 |
| P-3 | 80 | J-5 | HYD-5 | 300.0 | 110.0 | 0.12 |
| P-4 | 17 | HYD-5 | J-6 | 300.0 | 110.0 | 0.12 |
| P-5 | 82 | J-6 | J-7 | 300.0 | 120.0 | 0.11 |
| P-6 | 85 | J-7 | HYD-2 | 300.0 | 120.0 | 0.13 |
| P-7 | 97 | HYD-2 | HYD-3 | 300.0 | 120.0 | 0.10 |
| P-8 | 35 | HYD-3 | J-10 | 300.0 | 120.0 | 0.15 |
| P-9 | 115 | J-10 | J-11 | 300.0 | 120.0 | 0.15 |
| P-10 | 235 | J-11 | J-1 | 300.0 | 120.0 | 0.15 |
| P-11 | 107 | J-2 | HYD-1 | 300.0 | 120.0 | 0.26 |
| P-12 | 56 | HYD-1 | J-21 | 300.0 | 120.0 | 0.26 |
| P-13 | 73 | J-21 | HYD-2 | 300.0 | 120.0 | 0.06 |
| P-14 | 98 | HYD-2 | J-18 | 200.0 | 110.0 | 0.07 |
| P-15 | 73 | J-18 | HYD-8 | 200.0 | 110.0 | 0.03 |
| P-16 | 25 | HYD-8 | J-12 | 200.0 | 110.0 | 0.03 |
| P-17 | 86 | J-12 | J-13 | 200.0 | 110.0 | 0.07 |
| P-18 | 19 | J-13 | HYD-7 | 200.0 | 110.0 | 0.01 |
| P-19 | 86 | HYD-7 | J-17 | 200.0 | 110.0 | 0.01 |
| P-20 | 83 | J-17 | HYD-4 | 200.0 | 110.0 | 0.05 |
| P-21 | 21 | HYD-4 | J-7 | 200.0 | 110.0 | 0.05 |
| P-22 | 79 | J-13 | J-15 | 200.0 | 110.0 | 0.05 |
| P-23 | 60 | J-15 | HYD-6 | 200.0 | 110.0 | 0.02 |
| P-24 | 43 | HYD-6 | J-16 | 200.0 | 110.0 | 0.02 |
| P-25 | 111 | J-16 | J-6 | 200.0 | 110.0 | 0.01 |
| P-26 | 95 | J-12 | J-20 | 200.0 | 110.0 | 0.06 |
| P-27 | 15 | J-20 | HYD-9 | 200.0 | 110.0 | 0.09 |
| P-28 | 65 | HYD-9 | J-19 | 250.0 | 110.0 | 0.06 |
| P-29 | 91 | J-19 | HYD-3 | 250.0 | 110.0 | 0.08 |
| P-32 | 101 | J-22 | J-23 | 300.0 | 120.0 | 0.06 |
| P-33 | 94 | J-23 | J-21 | 300.0 | 120.0 | 0.17 |
| P-35 | 1 | J-2 | J-1 | 300.0 | 120.0 | 0.15 |
| P-36 | 1 | J-2 | J-3 | 300.0 | 120.0 | 0.32 |
| P-37 | 1 | R-1 | PMP-1 | 300.0 | 120.0 | 0.73 |
| P-38 | 1 | PMP-1 | J-2 | 300.0 | 120.0 | 0.73 |

10242 Glendon Drive Subdivision
Water Age Analysis
Junction Table - Time: 0.00 hours

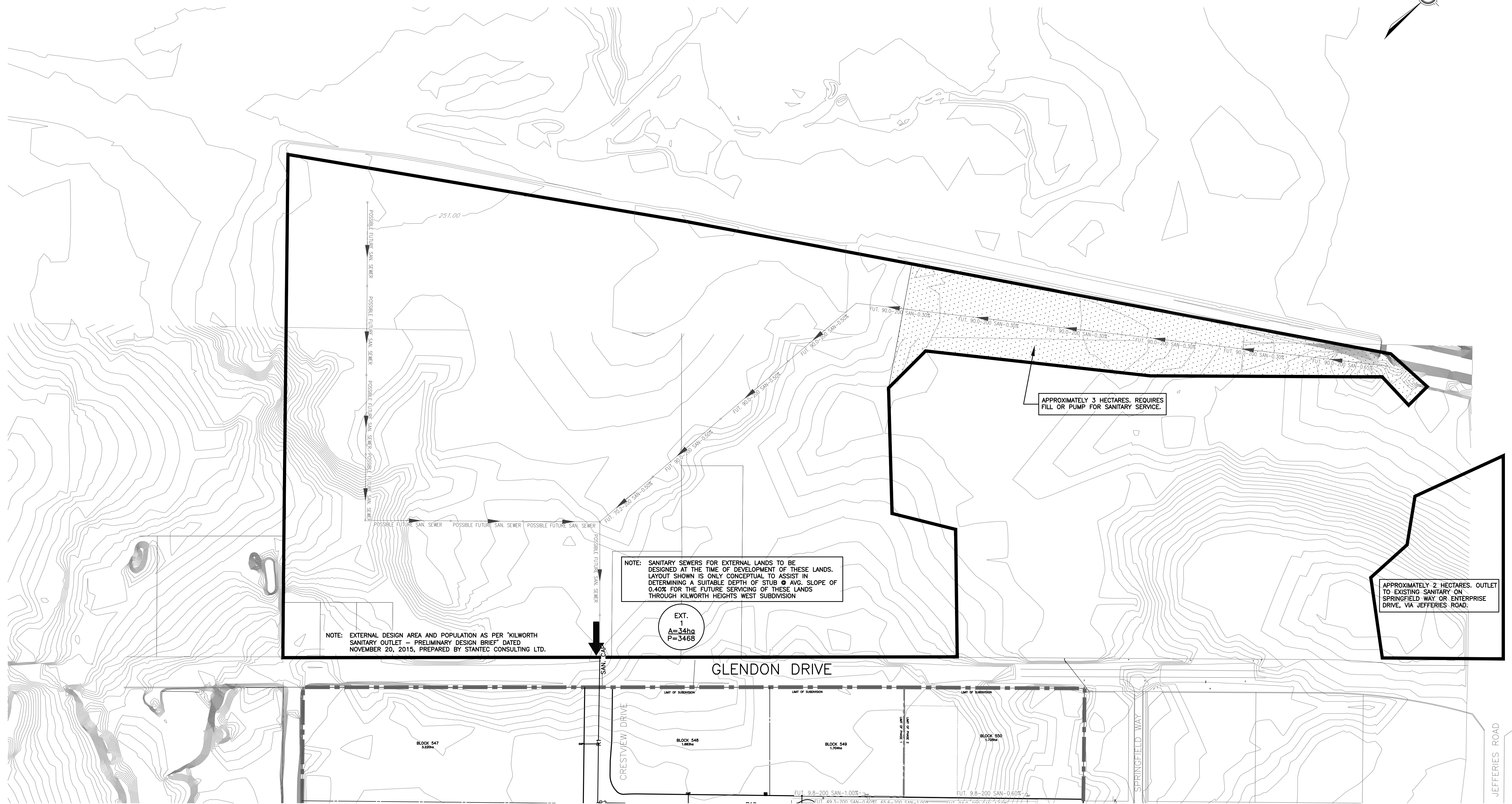
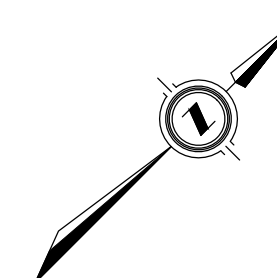
| Label | Elevation (m) | Demand (L/s) | Hydraulic Grade (m) | Pressure (kPa) | Age (Maximum) (hours) | Block ID |
|-------|---------------|--------------|---------------------|----------------|-----------------------|----------|
| HYD-1 | 247.87 | 0.00 | 281.47 | 329 | 0.548 | |
| HYD-2 | 247.69 | 0.00 | 281.47 | 331 | 2.618 | |
| HYD-3 | 248.02 | 0.00 | 281.47 | 327 | 2.374 | |
| HYD-4 | 247.65 | 0.00 | 281.47 | 331 | 3.518 | |
| HYD-5 | 246.84 | 0.00 | 281.46 | 339 | 4.486 | |
| HYD-6 | 247.72 | 0.00 | 281.47 | 330 | 11.866 | |
| HYD-7 | 249.22 | 0.00 | 281.47 | 316 | 10.602 | |
| HYD-8 | 249.47 | 0.00 | 281.47 | 313 | 5.635 | |
| HYD-9 | 249.90 | 0.00 | 281.47 | 309 | 4.290 | |
| J-1 | 249.20 | 0.00 | 281.47 | 316 | 0.300 | |
| J-2 | 247.18 | 0.00 | 281.47 | 336 | 0.200 | |
| J-3 | 240.36 | 0.00 | 281.47 | 402 | 0.300 | |
| J-4 | 241.04 | 4.21 | 281.47 | 396 | 0.664 | |
| J-5 | 246.25 | 6.01 | 281.46 | 345 | 2.993 | |
| J-6 | 246.96 | 0.00 | 281.47 | 338 | 4.363 | |
| J-7 | 247.36 | 0.00 | 281.47 | 334 | 3.144 | |
| J-10 | 248.20 | 0.00 | 281.47 | 326 | 2.187 | |
| J-11 | 246.20 | 0.00 | 281.47 | 345 | 1.567 | |
| J-12 | 249.74 | 0.28 | 281.47 | 311 | 5.872 | |
| J-13 | 249.31 | 0.33 | 281.47 | 315 | 7.657 | |
| J-15 | 248.73 | 0.36 | 281.47 | 320 | 8.940 | |
| J-16 | 246.98 | 0.27 | 281.47 | 337 | 14.344 | |
| J-17 | 248.79 | 0.36 | 281.47 | 320 | 4.990 | |
| J-18 | 248.66 | 0.36 | 281.47 | 321 | 3.819 | |
| J-19 | 249.20 | 0.28 | 281.47 | 316 | 3.373 | |
| J-20 | 250.06 | 0.30 | 281.47 | 307 | 4.425 | |
| J-21 | 248.24 | 0.66 | 281.47 | 325 | 0.731 | |
| J-22 | 247.87 | 1.14 | 281.47 | 329 | 2.709 | |
| J-23 | 248.28 | 2.62 | 281.47 | 325 | 1.202 | |

10242 Glendon Drive Subdivision
Water Age Analysis
Pipe Table - Time: 0.00 hours

| Label | Length (m) | Start Node | Stop Node | Diameter (mm) | Hazen-Williams C | Velocity (m/s) |
|-------|------------|------------|-----------|---------------|------------------|----------------|
| P-1 | 139 | J-3 | J-4 | 300.0 | 120.0 | 0.11 |
| P-2 | 99 | J-4 | J-5 | 300.0 | 120.0 | 0.05 |
| P-3 | 80 | J-5 | HYD-5 | 300.0 | 110.0 | 0.04 |
| P-4 | 17 | HYD-5 | J-6 | 300.0 | 110.0 | 0.04 |
| P-5 | 82 | J-6 | J-7 | 300.0 | 120.0 | 0.04 |
| P-6 | 85 | J-7 | HYD-2 | 300.0 | 120.0 | 0.04 |
| P-7 | 97 | HYD-2 | HYD-3 | 300.0 | 120.0 | 0.03 |
| P-8 | 35 | HYD-3 | J-10 | 300.0 | 120.0 | 0.05 |
| P-9 | 115 | J-10 | J-11 | 300.0 | 120.0 | 0.05 |
| P-10 | 235 | J-11 | J-1 | 300.0 | 120.0 | 0.05 |
| P-11 | 107 | J-2 | HYD-1 | 300.0 | 120.0 | 0.09 |
| P-12 | 56 | HYD-1 | J-21 | 300.0 | 120.0 | 0.09 |
| P-13 | 73 | J-21 | HYD-2 | 300.0 | 120.0 | 0.02 |
| P-14 | 98 | HYD-2 | J-18 | 200.0 | 110.0 | 0.02 |
| P-15 | 73 | J-18 | HYD-8 | 200.0 | 110.0 | 0.01 |
| P-16 | 25 | HYD-8 | J-12 | 200.0 | 110.0 | 0.01 |
| P-17 | 86 | J-12 | J-13 | 200.0 | 110.0 | 0.02 |
| P-18 | 19 | J-13 | HYD-7 | 200.0 | 110.0 | 0.00 |
| P-19 | 86 | HYD-7 | J-17 | 200.0 | 110.0 | 0.00 |
| P-20 | 83 | J-17 | HYD-4 | 200.0 | 110.0 | 0.02 |
| P-21 | 21 | HYD-4 | J-7 | 200.0 | 110.0 | 0.02 |
| P-22 | 79 | J-13 | J-15 | 200.0 | 110.0 | 0.02 |
| P-23 | 60 | J-15 | HYD-6 | 200.0 | 110.0 | 0.01 |
| P-24 | 43 | HYD-6 | J-16 | 200.0 | 110.0 | 0.01 |
| P-25 | 111 | J-16 | J-6 | 200.0 | 110.0 | 0.00 |
| P-26 | 95 | J-12 | J-20 | 200.0 | 110.0 | 0.02 |
| P-27 | 15 | J-20 | HYD-9 | 200.0 | 110.0 | 0.03 |
| P-28 | 65 | HYD-9 | J-19 | 250.0 | 110.0 | 0.02 |
| P-29 | 91 | J-19 | HYD-3 | 250.0 | 110.0 | 0.03 |
| P-32 | 101 | J-22 | J-23 | 300.0 | 120.0 | 0.02 |
| P-33 | 94 | J-23 | J-21 | 300.0 | 120.0 | 0.06 |
| P-35 | 1 | J-2 | J-1 | 300.0 | 120.0 | 0.05 |
| P-36 | 1 | J-2 | J-3 | 300.0 | 120.0 | 0.11 |
| P-37 | 1 | R-1 | PMP-1 | 300.0 | 120.0 | 0.24 |
| P-38 | 1 | PMP-1 | J-2 | 300.0 | 120.0 | 0.24 |

Appendix 2

Sanitary Servicing Information



NOTE: SANITARY SEWERS FOR EXTERNAL LANDS TO BE DESIGNED AT THE TIME OF DEVELOPMENT OF THESE LANDS. LAYOUT SHOWN IS ONLY CONCEPTUAL TO ASSIST IN DETERMINING A SUITABLE DEPTH OF STUB @ AVG. SLOPE OF 0.40% FOR THE FUTURE SERVICING OF THESE LANDS THROUGH KILWORTH HEIGHTS WEST SUBDIVISION

NOTE: EXTERNAL DESIGN AREA AND POPULATION AS PER 'KILWORTH SANITARY OUTLET - PRELIMINARY DESIGN BRIEF' DATED NOVEMBER 20, 2015, PREPARED BY STANTEC CONSULTING LTD.

EXT. 1
A=34ha
P=3468

PRINTED ON: Sep. 13, 2018 11:32am FILE NAME: A:\Engineering\Drawings\CD\15.093-Design.dwg LAYOUT: EXTERNAL SANITARY AREA PLAN

| EXISTING SERVICES | DRAWING #, SOURCE | DATE | CONSTRUCTED SERVICES | COMPLETION | DETAILS | No. | REVISIONS | DATE | CONSULTANT |
|-------------------|-------------------|------|----------------------|------------|----------|-----|-----------------------|----------------|---------------|
| | | | | | DESIGN | 1 | AS PER M.C. COMMENTS | JAN. 30, 2018 | ENG PLUS LTD. |
| | | | | | DRAWN BY | 2 | AS PER M.C. COMMENTS | MAR. 05, 2018 | ENG PLUS LTD. |
| | | | | | CHECKED | 3 | M.O.E.C.C. SUBMISSION | APR. 17, 2018 | ENG PLUS LTD. |
| | | | | | APPROVED | 4 | AS PER M.C. COMMENTS | MAY 28, 2018 | ENG PLUS LTD. |
| | | | | | DATE | 5 | AS PER M.C. COMMENTS | AUG. 17, 2018 | ENG PLUS LTD. |
| | | | | | | 6 | AS PER M.C. COMMENTS | SEPT. 14, 2018 | ENG PLUS LTD. |

CONSULTANT OR DIVISION

**Engineers
Landscape Architects
and Building Designers**

100-609 WILLIAM STREET, LONDON, ON, N6B 3G1
tel. 519.438.6994 fax. 519.438.7052

ENGINEER'S STAMP

V. PHAM
PROVINCE OF ONTARIO

**middlesex
centre**
in the centre of it all

SCALE - 1 : 1500

TITLE

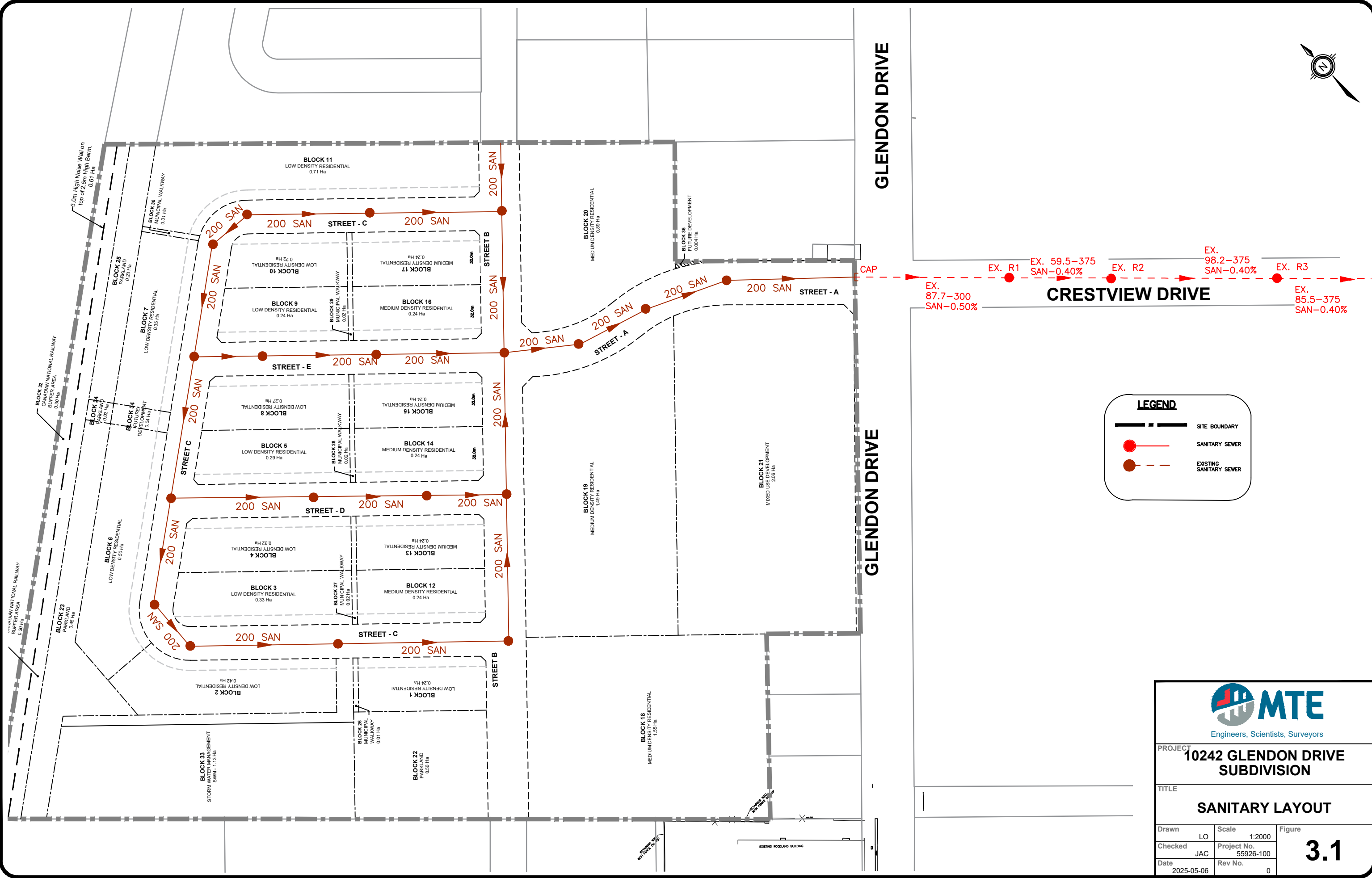
KILWORTH HEIGHTS WEST SUBDIVISION
KILWORTH HEIGHTS WEST LTD.

**EXTERNAL SANITARY
AREA PLAN**

PROJECT No. **15.093**

SHEET No. **8**

PLAN FILE No.



LEGEND

- SITE BOUNDARY
- SANITARY SEWER
- EXISTING SANITARY SEWER

MTE
Engineers, Scientists, Surveyors

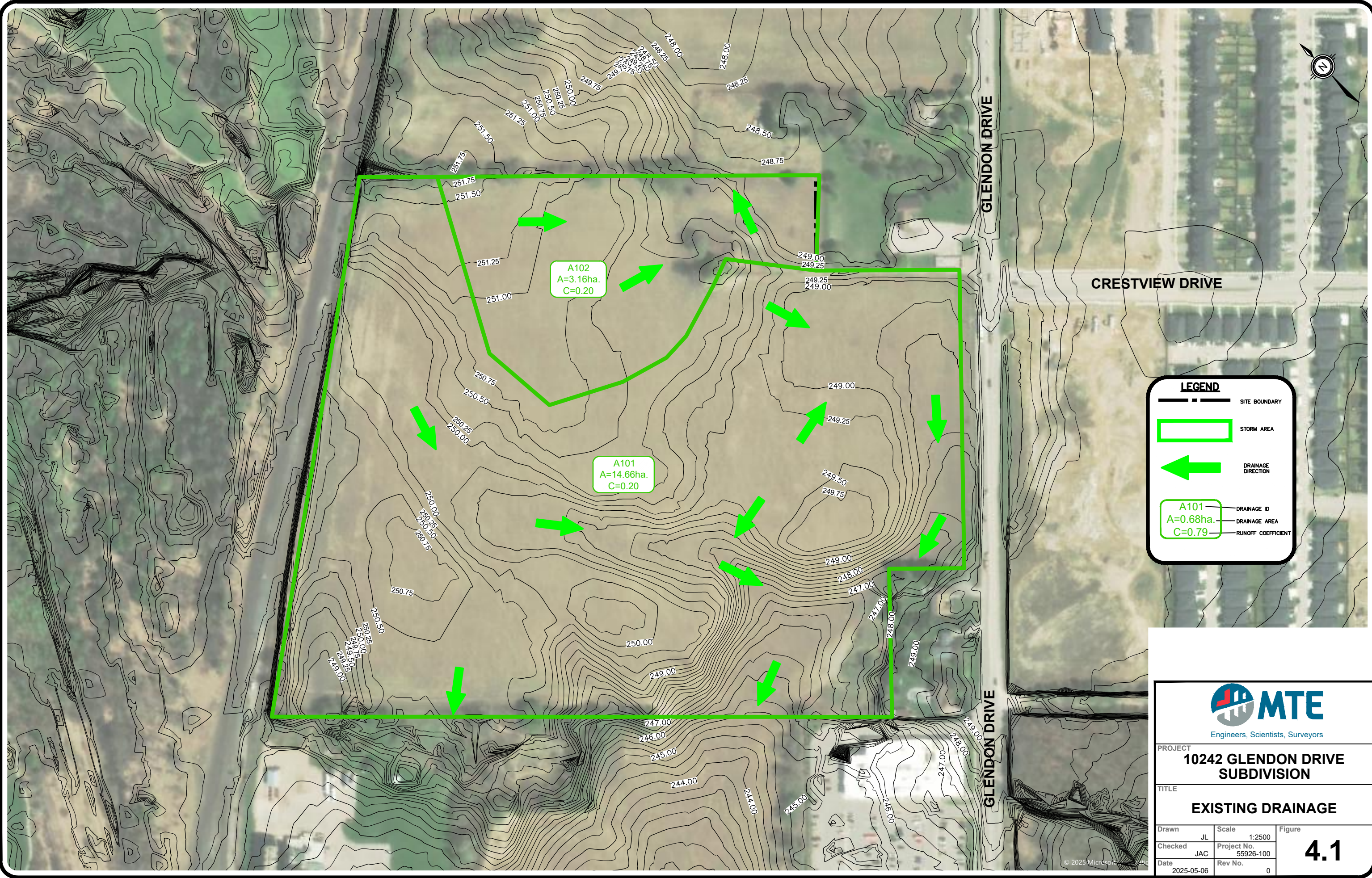
PROJECT
10242 GLENDON DRIVE SUBDIVISION

TITLE
SANITARY LAYOUT




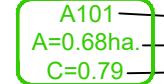

| | | | | |
|---------|------------|-------------|-----------|----------------------|
| Drawn | LO | Scale | 1:2000 | Figure 3.1 |
| Checked | JAC | Project No. | 55926-100 | |
| Date | 2025-05-06 | Rev No. | 0 | |

Appendix 4

Stormwater Servicing Information



LEGEND

-  SITE BOUNDARY
-  STORM AREA
-  DRAINAGE DIRECTION
-  DRAINAGE ID
A101
A=14.66ha
C=0.79
-  DRAINAGE AREA
A=0.68ha
C=0.79

MTE
Engineers, Scientists, Surveyors

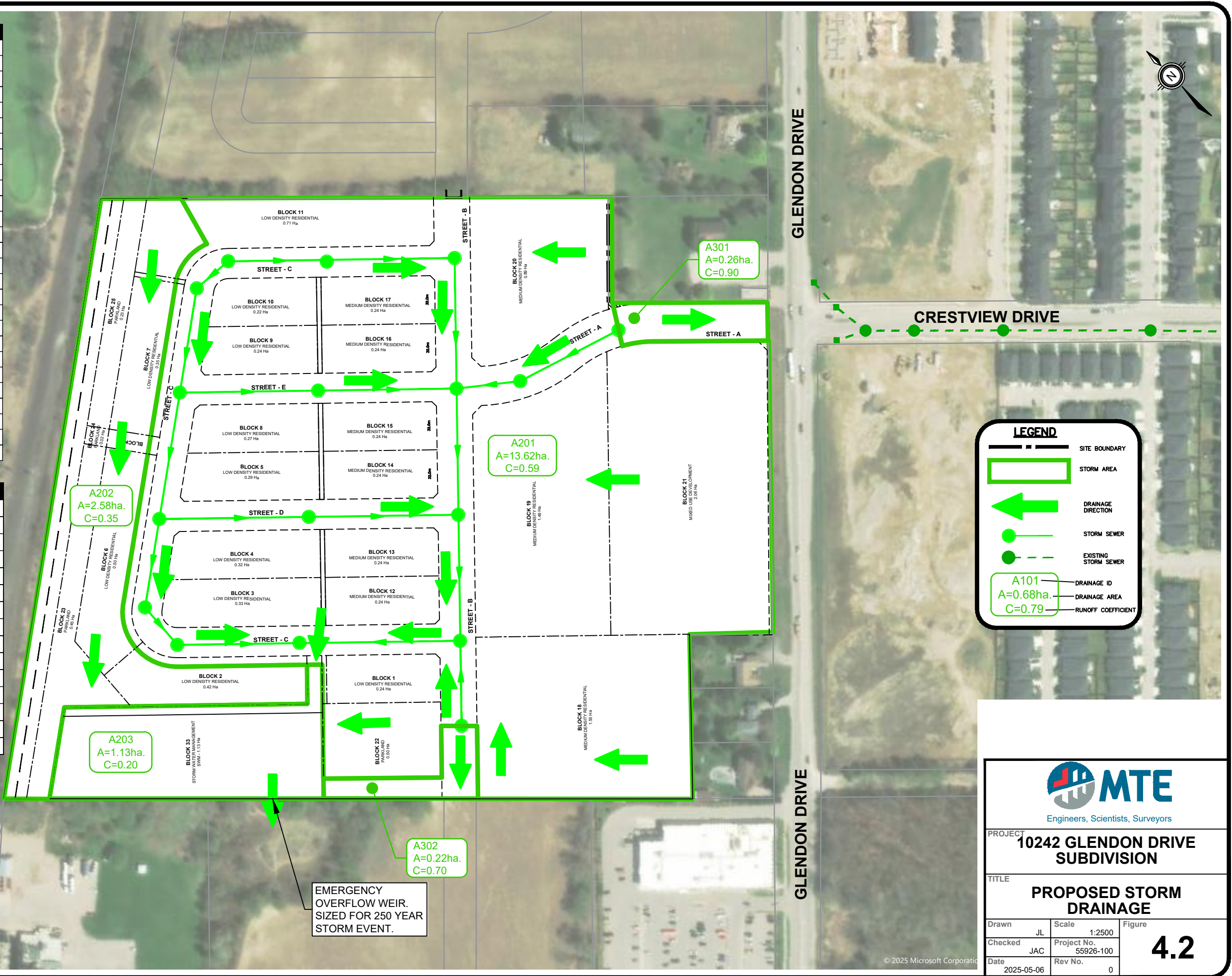
PROJECT
10242 GLENDON DRIVE SUBDIVISION

TITLE
EXISTING DRAINAGE

| | | |
|--------------------|--------------------------|----------------------|
| Drawn JL | Scale 1:2500 | Figure 4.1 |
| Checked JAC | Project No. 55926-100 | |
| Date 2025-05-06 | Rev No. 0 | |

| Area 1 | Type | A | C | A*C |
|-------------|--------------|--------|-------------|-------|
| Block 22 | P | 0.5 | 0.20 | 0.1 |
| Block 10 | L | 0.22 | 0.50 | 0.11 |
| Block 9 | L | 0.24 | 0.50 | 0.12 |
| Block 8 | L | 0.27 | 0.50 | 0.135 |
| Block 5 | L | 0.29 | 0.50 | 0.145 |
| Block 4 | L | 0.32 | 0.50 | 0.16 |
| Block 3 | L | 0.33 | 0.50 | 0.165 |
| Block 1 | L | 0.24 | 0.50 | 0.12 |
| Block 11 | L | 0.54 | 0.50 | 0.269 |
| Block 17 | M | 0.24 | 0.65 | 0.156 |
| Block 16 | M | 0.24 | 0.65 | 0.156 |
| Block 15 | M | 0.24 | 0.65 | 0.156 |
| Block 14 | M | 0.24 | 0.65 | 0.156 |
| Block 13 | M | 0.24 | 0.65 | 0.156 |
| Block 12 | M | 0.24 | 0.65 | 0.156 |
| Block 19 | M | 1.49 | 0.65 | 0.969 |
| Block 21 | M | 2.06 | 0.65 | 1.339 |
| Block 20 | M | 0.89 | 0.65 | 0.579 |
| Block 18 | M | 1.55 | 0.65 | 1.008 |
| Total Above | | 10.378 | | |
| Area Total | | 13.62 | | |
| Other | | 3.242 | | |
| | Grass | 1.458 | 0.20 | 0.292 |
| | Hard Surface | 1.782 | 0.90 | 1.604 |
| | | | A*C Total = | 8.049 |
| | | | Final C | 0.59 |

| Area 2 | Type | A | C | A*C |
|-------------|-------|------|-------------|-------|
| Block 25 | P | 0.23 | 0.20 | 0.046 |
| Block 24 | P | 0.02 | 0.20 | 0.004 |
| Block 23 | P | 0.45 | 0.20 | 0.09 |
| Block 2 | L | 0.24 | 0.50 | 0.12 |
| Block 6 | L | 0.5 | 0.50 | 0.25 |
| Block 7 | L | 0.35 | 0.50 | 0.175 |
| Block 11 | L | 0.17 | 0.50 | 0.085 |
| Block 34 | L | 0.04 | 0.50 | 0.02 |
| Total Above | | 2 | | |
| Area Total | | 2.6 | | |
| Other | | | | |
| | Grass | 0.6 | 0.20 | 0.12 |
| | | | A*C Total = | 0.91 |
| | | | Final C = | 0.35 |



MTE
Engineers, Scientists, Surveyors

PROJECT
10242 GLENDON DRIVE SUBDIVISION

TITLE
PROPOSED STORM DRAINAGE

| | | | | |
|---------|------------|-------------|-----------|----------------------|
| Drawn | JL | Scale | 1:2500 | Figure 4.2 |
| Checked | JAC | Project No. | 55926-100 | |
| Date | 2025-05-06 | Rev No. | 0 | |

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10242 Glendon Drive
STORMWATER MANAGEMENT
 Komoka, Ontario

Project Number: 55926-100
 Date: May 22, 2025
 Design By: JAC
 File: <https://mte85.sharepoint.com/sites/55926-100/Shared Documents/MTE Reports/FSR/swm/55926-100Master SWM Facility Design Sheet.xlsx>

HYDROLOGIC PARAMETERS

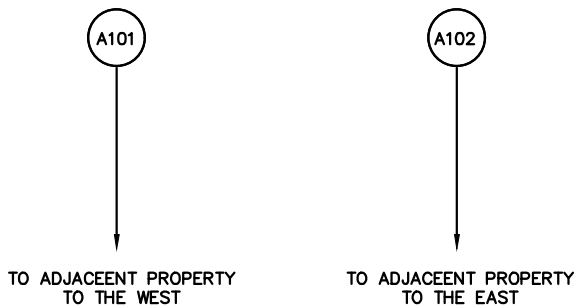
Pre-Development Conditions

| Sub-Catchment Number | Area (ha) | Overland Slope (%) | Overland Length (m) | SCS Curve Number | | | Percent Impervious (%) | Land Use | Comment |
|----------------------|--------------|--------------------------|---------------------------|----------------------|-----------------------|------------|------------------------------|-------------|------------------|
| | | | | Pervious (AMC II) | Pervious (AMC III) | Impervious | | | |
| 101 | 14.66 | 525 | 0.93 | 75 | 87 | 98 | 0 | Agriculture | Drains Externaly |
| 102 | 3.16 | 210 | 0.77 | 75 | 87 | 98 | 0 | Agriculture | Drains Externaly |
| Total | 17.82 | | | | | | 0.00 | | |

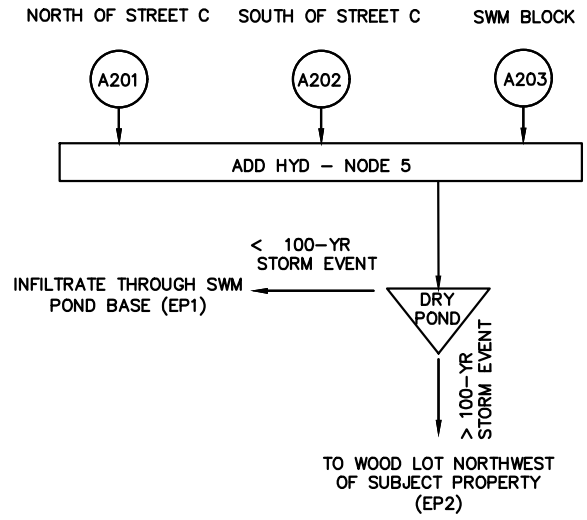
Post-Development Conditions

| Sub-Catchment Number | Area (ha) | Overland Slope (%) | Overland Length (m) | SCS Curve Number | | | Percent Impervious (%) | Land Use | Comment |
|----------------------|--------------|--------------------------|---------------------------|----------------------|-----------------------|------------|------------------------------|-------------|---------------|
| | | | | Pervious (AMC II) | Pervious (AMC III) | Impervious | | | |
| 201 | 13.62 | 2 | 356 | 75 | 87 | 98 | 52.1 | Residential | Proposed Dev. |
| 202 | 2.58 | 0.8 | 555 | 81 | 91 | 98 | 25 | Residential | Proposed Dev. |
| 203 | 1.13 | | | | 0 | 98 | 0 | SWM Pond | Proposed Dev. |
| 301 | 0.26 | 2 | 57 | 95 | 98 | 98 | 45 | Road | Proposed Dev. |
| 302 | 0.22 | 1.8 | 105 | 95 | 98 | 98 | 45 | Road | Proposed Dev. |
| Total | 17.81 | | | | | | 44.68 | | |
| Total to Pond | 16.2 | | | | | | 47.78 | | |

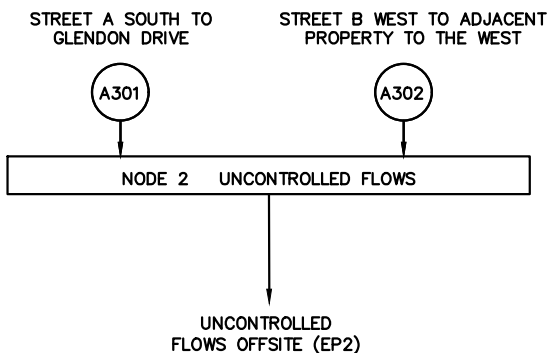
PRE-DEVELOPMENT
HYDROLOGIC MODELLING
SCHEMATIC



POST-DEVELOPMENT
(CONTROLLED) HYDROLOGIC
MODELLING SCHEMATIC



POST-DEVELOPMENT
(UNCONTROLLED) HYDROLOGIC
MODELLING SCHEMATIC



LEGEND




-  HYDROGRAPH GENERATION
-  HYDROGRAPH ROUTING
-  HYDROGRAPH ADDITION
MIDUSS STORAGE LOCATION NUMBER

FIGURE 4.3

Date: 5/20/2025
Scale: N/A

HYDROLOGIC MODELLING
SCHEMATIC



Engineers | Scientists | Surveyors

Project No.: 55926-100



Experience. The Difference.™

Sifton Properties Limited
Planning Justification Report
10242 Glendon Drive

APPENDIX D

Complete Policy Review

DETAILED POLICY REVIEW – 10242 GLENDON DRIVE DRAFT PLAN & ZBA APPLICATION

PROVINCIAL PLANNING STATEMENT (PPS) 2024

Housing

Applicable Policies

Chapter 2 of the PPS promotes complete communities and the efficient use of land, resources and infrastructure and requires municipalities to provide for an appropriate range and mix of housing options and densities, including affordable housing. Growth and development is to be focused in settlement areas with an emphasis on residential intensification and transit supportive development. Municipalities are to provide at least a 3-year supply of residential units through suitably zoned and draft approved or registered plans.

Policy Analysis

The proposed subdivision is consistent with the PPS as follows:

- It is intended to provide for a mix of housing types and densities, in a more compact form than currently exists in the municipality, thereby making efficient use of land and infrastructure. This also supports PPS policies pertaining to energy conservation and climate change.
- The proposed housing mix will contribute to affordability through the inclusion of apartments and other attached forms of housing.
- It will assist the Municipality in meeting the target for the 3-year supply of residential units.
- The proposed development includes a park and multi-use trails as well as retail/commercial uses in close proximity to existing recreation and retail uses conjunction with the residential diversity, helping to create a complete community.

Infrastructure and Public Facilities

Applicable Policies

Chapter 3 of the PPS directs that infrastructure and public facilities are to be planned and provided in an integrated manner with a focus on efficiency, financial viability / cost-effectiveness and innovation. Sensitive land uses are to avoid or mitigate adverse impacts from such uses as rail corridors, manufacturing facilities, extraction activities, etc.

Municipal sewer and water services are the preferred form of servicing for settlement areas, with stormwater management planning to be integrated with such services to ensure optimization and financial feasibility.

Transportation and infrastructure corridors are also to be protected. New development on adjacent lands is to be compatible with the long-term purpose of the corridor, and avoid or minimize impacts from corridors. Appropriate buffering and separation from rail facilities is also required in order to protect their long-term operation.

The PPS also requires the planning and provision of park and recreation facilities for all ages and abilities in order to facilitate healthy, active and inclusive communities.

Policy Analysis

Technical studies have been undertaken relating to servicing, stormwater management, noise and vibration, and transportation impact to support the proposed development. It complies with the foregoing PPS policies as follows:

- Full municipal servicing will be provided for the subdivision;
- A stormwater management facility has been incorporated into the plan of subdivision;
- Noise mitigation measures and warning clauses have been recommended to address the adjacent railway corridor, arterial road and stationary noise source.
- The proposed development provides adequate setbacks from Glendon Drive to maintain its function, and proposed high density uses are appropriate along the arterial corridor.
- A neighbourhood park and multi-use trail have been incorporated into the subdivision design.

Wise Use and Management of Resources

Applicable Policies

Chapter 4 of the PPS includes policies pertaining to natural heritage, water, agriculture, minerals and petroleum, aggregate resources and cultural heritage and archaeology. Applicable policies pertaining to natural features (4.1) state they are to be identified and protected, with development not permitted in significant features unless no negative impact can be demonstrated. In addition, development is restricted in or near sensitive surface and groundwater features (Section 4.2).

Section 4.5 states that aggregate resources are also to be protected for long-term use. Development that precludes the use of known aggregate resources is only permitted if the resource use is not feasible, or the proposed land-use serves a greater long term interest and issues of public health, safety and environmental impact are addressed.

Significant archaeological and cultural heritage resources are also to be conserved, according to Policy 4.6.

Policy Analysis

The proposed development is consistent with these policies as follows:

- The subject site does not contain natural heritage or groundwater resources.
- The site is within an area of potential aggregate resource. However, geotechnical investigations have been completed, concluding that the resource is not of sufficient quality or quantity for economically feasible extraction. The proposed residential development serves a greater long-term interest during the current housing crisis.
- Stage 1-2 archaeological investigations have been completed and no further assessment is required.

Protecting Public Health and Safety

Applicable Policies

Section 5.1.1 of the PPS states that development is to be directed away from natural or human-made hazards, including lands subject to erosion and flooding.

Policy Analysis

The proposed subdivision is consistent with the PPS as follows:

- There are no identified natural hazards on the site.
- A Phase 1 Environmental Assessment was completed and concluded that any potential environmental concerns could be considered as being resolved.

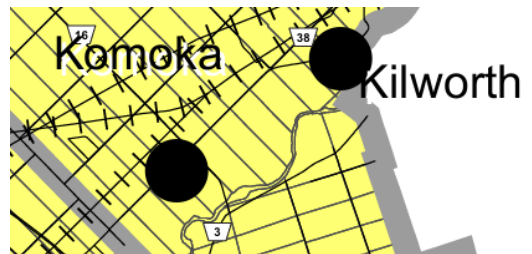
MIDDLESEX COUNTY OFFICIAL PLAN

Middlesex Centre is located within the County of Middlesex. As such, the County's Official Plan "establishes an upper tier policy framework that provides direction to the local municipalities in the preparation of local Official Plans and Zoning By-laws". The OP has been reviewed for policies that would pertain to the draft plan of subdivision, with the most relevant policies summarized below.

Land Use

Applicable Policies

The site is situated between the Komoka and Kilworth Settlement Areas on Schedule A – Land Use of the Middlesex County. Both Komoka and Kilworth are identified as 'Urban Areas' in the County's growth management hierarchy. Urban areas are those areas which are intended to accommodate future growth on full municipal services. Section 2.3.5 states that the limits of settlement areas are to be defined by the local municipality. As such, the subject site is included within the Komoka-Kilworth Settlement Area by Middlesex Centre.



Housing policies, contained within Section 2.3.7 support a wide variety of housing types, sizes and tenures to meet demographic and market requirements. Intensification, alternative forms of housing for special needs groups and housing accessible to low and moderate income households are all supported by the County, with a requirement that 20 percent of all housing be affordable. New development in Settlement Areas is also encouraged to occur through plans of subdivision, as per Section 3.2.4.

Policy Analysis

The subject site complies with Middlesex County policies as follows:

- It is located within the limits of a defined Urban Settlement Area;
- Development will occur through a plan of subdivision;
- Development will occur on full municipal services;
- The proposed development provides for a wide variety of housing types and tenures, with a higher level of intensity than currently exists in the area, thereby contributing to the affordable housing targets of the County.

Transportation

Applicable Policies

Schedule B (Transportation) shows the site is bounded on the south by a 'Four Lane Arterial Road – County'. Section 2.4.2.1 relating to the transportation hierarchy states that County roads are intended to function as arterial or collector roads with limited direct private access. Agricultural, industrial, commercial and open space land uses are considered to be the most appropriate along arterial county roads. Noise and vibration attenuation measures may be required where traffic volumes and speeds are higher.



Specific policies of Section 2.4.2.2 encourage safe, convenient and attractive pedestrian and cycling infrastructure for all ages and abilities in addition to minimizing conflict between local and non-local traffic. Development proposals likely to generate traffic impacts are also required to complete transportation studies to identify and address potential impacts. Land uses adjacent to railway corridors are also required to provide sufficient noise and vibration mitigation measures, where necessary.

Section 2.4.2.2 l) states that all new residential developments are to provide a minimum of two access points to the existing road network unless the proposed street pattern is acceptable to the local municipality, emergency services and the County engineer.

Policy Analysis

No changes are proposed to the road classification. The proposed development addresses the policies as follows:

- The proposed development limits access to one proposed collector street intersection from the arterial road.
- A TIS has been completed to demonstrate that the road system can accommodate the proposed development.
- Proposed development adjacent to the arterial is mixed use, including commercial and high-density residential.
- A noise and vibration study has been completed for the proposed development area adjacent to the railway corridor with mitigation measures identified that can be included as draft plan conditions. Lot depths and proposed site-specific zoning also provide sufficient setbacks to address noise and vibration mitigation recommendations.
- Only one access point is proposed to the existing road network, however, this road pattern is in accordance with the Komoka-Kilworth Secondary Plan transportation schedule, therefore sufficiently complies with the County policy.

Natural Heritage, Natural Hazards and Groundwater Protection

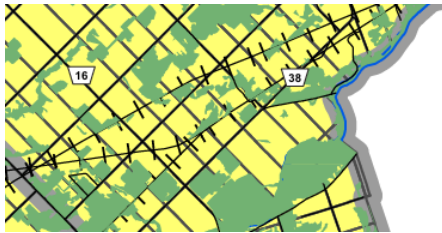
Applicable Policies

The policies of Section 2.2.1 Natural Environment and 2.3.10 Natural Heritage Features are intended to “identify, protect, maintain and encourage rehabilitation” of the natural environment, and to direct development away from the natural heritage features. In addition, significant groundwater recharge areas, well head protection areas and highly vulnerable aquifers are also to be protected from

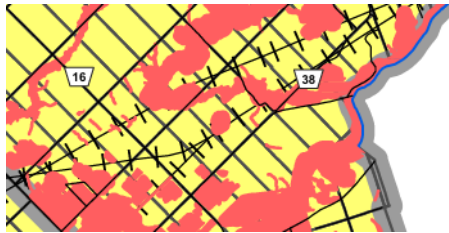
degradation. If development is proposed within or adjacent (within 120 metres) to Natural Environment features, a Development Assessment Report (DAR) is required.

Policy Analysis

No features are identified on the subject site on Schedule C (Natural Heritage), Schedule D (Natural Hazard Areas) and Schedule F (Source Water Protection). A natural heritage feature is shown north of the railway, within 120m of the subject site. As such, a scoped DAR may be required as a condition of draft plan approval to demonstrate that no impacts are anticipated to the natural heritage or groundwater systems.



Schedule C – Natural Heritage



Schedule D – Natural Hazard Areas



Schedule F – Source Water Protection

Aggregate Resources

Applicable Policies

Schedule E – Aggregate Resources identifies ‘Aggregate Resource Areas’ on the subject site. Section 2.2.3 (Aggregate Resources) contains policies intended to manage and protect aggregate resource areas for extraction purposes. Expansion of, or consideration of new extraction operations, is required to evaluate impacts on area residents and the natural heritage system. Where significant resources exist, uses which preclude resource extraction are discouraged until the resource has been substantially depleted. However, where documentation has been provided that the aggregate resource is of secondary quality and that extraction is neither practical or economically feasible, lands may be used for other purposes in accordance with the local official plans.



Policy Analysis

The subject site is identified on Schedule E as being within an area of aggregate resources. The proposed land use would preclude future extraction of any resources. The policy has been addressed as follows:

- Geotechnical investigations completed for the site indicate soil conditions consist of cohesionless sand and silt, which are not practical nor economically feasible for extraction purposes.
- Existing and approved residential developments to the south would potentially be negatively impacted by any extraction activities.
- The proposed development is proposed to be used in accordance with the land use designations identified in the Middlesex Centre Official Plan.
- Should aggregate deposits be found of sufficient quantity for smaller scale use (e.g. – road subgrade, backfill) during the development of the site, they could be utilized at that time.

Infrastructure

Applicable Policies

The County encourages new development to proceed on the basis of full municipal water and sanitary services.

Policy Analysis

The proposed development will proceed with full municipal servicing, including an on-site stormwater management facility.

MIDDLESEX CENTRE OFFICIAL PLAN POLICIES

The Middlesex Centre Official Plan “is intended to provide for the orderly growth and development of the Municipality, and provide guidance in the management of change”. It provides more detailed guidance than the County OP and addresses local issues, unique characteristics and more specific goals and objectives. A detailed review of the Middlesex Centre OP has been undertaken, with relevant policies pertaining to applications for draft plan of subdivision and associated zoning by-law amendment excerpted and italicized below. Policy analysis is provided for major topic areas within the Official Plan.

Land Use and Housing

Applicable Policies

Land use designations for 10242 Glendon Drive are shown as Village Centre and Low Density Residential on Schedule A-2 – Komoka-Kilworth Settlement Area & Secondary Plan. A Future Collector Road is identified from east to west, as well as from Glendon Drive to the future collector road. A Multi-use Trail is also identified along the rear boundary of the site, adjacent to the railway line.



Residential policies are located in Section 5.2 of the Official Plan, with additional policies pertaining to multiple dwellings in Section 5.2.3. Section 5.3 of the OP contains goals and policies pertaining to Village Centres. In general, Village Centres are to function as community gathering places with unique identities and characteristics with new development and improvements intended to be compatible with adjacent residential uses.

In addition to the policies of Section 5.3, more detailed guidance is provided in Section 5.7 of the OP, which contains the Komoka-Kilworth Secondary Plan. Specific policies to be considered relating to land use in Sections 5.3 and 5.7 are excerpted below in italics. Where the Secondary Plan includes more detailed or alternative policies, only those in the Secondary Plan section are excerpted and addressed. Detailed policy analysis pertaining to these sections is provided below.

5.2 RESIDENTIAL AREAS

5.2.1 General Residential Policy

The following policy relates to lands designated Residential within Urban and Community Settlement Areas of the Municipality, as well as to residential development within Hamlets.

- a) *The Municipality will provide and encourage a wide variety of housing types, sizes and tenures to meet demographic and market requirements for the Municipality's current and future residents.*
- b) *The Municipality encourages the provision of alternative forms of housing for special needs groups, where possible.*
- g) *The Municipality shall encourage housing accessible to lower and moderate income households. In this regard the County of Middlesex through its Official Plan will require that 20 percent of all housing be affordable. In the case of ownership housing the least expensive is considered to be housing for which the purchase price is at least 10 percent below the average purchase price of a resale unit in the regional market area. This 'benchmark' purchase price figure for 2005 is \$195,845 in the Middlesex regional market area. This 'benchmark' figure will change over time as a result of fluctuating mortgage costs, utility rates, and the vagaries of the housing market over which the County of Middlesex and the Municipality have no control. The County will; however, monitor the 'benchmark' on an annual basis.*

5.2.2 Permitted Uses

The predominant land use within areas designated Residential shall be residential dwellings, including single detached, semi-detached, townhouses, duplex / triplex / fourplex dwellings, and low\medium rise apartments....

5.2.3 Policies For Multiple Dwellings in Residential Areas

Multiple dwellings, including four plexes, town houses and low/medium rise apartments shall be subject to the following policies:

- a) *Locations should be proximate to adequate open space or park areas, schools, or Village Centre areas where possible.*
- b) *Densities proposed should be generally compatible with adjacent densities when proposed adjacent to or within existing residential areas.*
- c) *For apartment dwellings, locations should be in close proximity to a major roadway, or roadway suitable for carrying higher than average volumes of traffic.*
- d) *The excessive clustering of multiple dwellings shall be avoided, and a general integration and distribution of such uses at appropriate locations within neighbourhoods or settlements is encouraged.*
- e) *Notwithstanding Subsection (d) above, the siting of multiple dwellings adjacent to or in close proximity to Village Centres, is encouraged.*

Policy Analysis

The proposed subdivision complies with the Official Plan as follows:

- Proposed uses include a mix of single-family, street townhouse, stacked townhouse and apartment buildings, all of which are permitted within Residential designations.
- It incorporates a range of multiple dwelling types, particularly apartments and stacked townhouses which will greatly contribute to the Municipality's goal of providing a minimum of 20% of housing to be accessible to lower and moderate income households.
- Multiple unit dwellings proposed on the subject site are in immediate proximity to a proposed neighbourhood park and within or in immediate proximity to Village Centre areas, including existing retail and recreational uses.
- With the exception of 3 existing residences abutting Glendon Drive, there are no other existing residential areas immediately adjacent to the site at the present time.

- Proposed apartment buildings are adjacent to Glendon Drive, an arterial road, and the proposed collector road which would be capable of carrying the proposed traffic volumes.

5.3.2 Village Centre Policies

a) It is the intent of this Plan to establish and maintain Village Centres in Urban and Community Settlement Areas as the centres of retail and services, community gathering, and community identity in the Municipality.

b) Village Centres are planned to function as traditional village main streets that provide for daily and weekly convenience and general retail and service needs for the settlement area and the surrounding agricultural community. Such centres will also represent the commercial and social focal points for the settlement area and its surrounding farm communities.

d) Mixed use buildings are encouraged within Village Centre areas.

e) Village Centre areas should remain as compact as possible. Consistency in terms of building massing, scale and setback are encouraged. Building designs that allow for separate access to second and third stories along the street are strongly encouraged.

f) In the context of new development, the preservation and reuse of buildings with architectural or historical merit is strongly encouraged.

g) Parking within Village Centres will be provided in the context of new development. Cash- in-lieu of parking may be collected by the municipality to facilitate the establishment of appropriately located municipal parking. All parking will be designed and landscaped to de-emphasize its effect on the physical appearance of the Village Centre.

h) Development shall be subject to the policies in Section 6.0 and in Section 10.5 of this Plan, and shall have regard for the Municipality's Site Plan Manual and Urban Design Guidelines.

5.3.3 Permitted Uses

Uses permitted within Village Centres include the following:

- a) Commercial uses, including general and convenience retail, personal services, and office uses.*
- b) Restaurants, hotels, compatibly-scaled entertainment / recreational facilities, and open space or park land.*
- c) Residential uses, so long as they do not negatively disrupt the compact nature, and commercial and service use focus, of Village Centres. Residential uses above ground floor commercial uses are encouraged.*
- d) Institutional and civic uses such as municipal offices and functions, post offices, schools and libraries.*

5.7 KOMOKA-KILWORTH SECONDARY PLAN

The Komoka-Kilworth Urban Settlement Area is one of the primary areas to accommodate urban growth in Middlesex Centre and permits a range of residential, commercial and employment uses with supporting parks, schools, open space, recreational and community facilities. The Secondary Plan for Komoka-Kilworth provides a statement of objectives and policies and a land use plan intended to guide and direct the nature of land development within this community. The following text and Schedule A-2 constitute the Komoka-Kilworth Secondary Plan and apply to the area shown on Schedule A-2 in addition to all other sections of the Official Plan, and should be read in conjunction with the Official Plan in its

entirety. In the event of a conflict between this section and any other section of the Official Plan, the more restrictive policies shall apply.

5.7.1 Komoka-Kilworth Secondary Plan Goals

The following goals apply to the land shown on Schedule A-2 in addition to the Municipal General Principles of section 1.8 and other goals identified in this Plan:

- a) To establish a balanced mix of land uses serving key functions of a complete and vibrant community, including housing, local businesses, employment, schools, recreation facilities, and parks and open space;
- b) To plan for a community of all ages by providing a diversity of housing choice and affordability and providing community and recreational services to match population needs;
- c) To provide for additional housing and employment and address urban land requirements for these uses in the Municipality through intensification of existing developed areas and compact land use in new development areas;
- d) To minimize the consumption of prime agricultural land and potential impacts on farm operations and promote continuation of existing farming operations;
- e) To plan for the development of a new mixed use Village Centre as part of a centrally located destination area including the Wellness and Recreation Centre and emphasizing Glendon Drive as a traditional village main street with street-oriented, mixed use buildings to promote the unity of Komoka and Kilworth;
- f) To provide for an appropriate range and mix of housing types and densities;
- h) To support community design that fosters place-making, social engagement, community safety, barrier-free access and active and healthy lifestyles;
- i) To require full municipal services and direct new development in accordance with the servicing strategy for the area;
- j) To plan for a safe, connected and multi-modal transportation network;
- k) To promote energy conservation and efficiency through community layout and building design and reducing reliance on private automobiles;
- l) To conserve significant environmental features for the long-term;
- m) To direct new development away from natural hazard areas and minimize risks to public safety; and
- n) To protect aggregate resources for future extraction subject to preserving the long term use of the land for designated settlement area functions.

5.7.2 Land Use Plan

The Land Use Plan for Komoka-Kilworth is shown on Schedule A-2 to this Plan and is further defined by the following policies.

- a) Future land use and development proposals, as well as public works and other municipal projects, shall contribute to the establishment of a balanced, mixed use community with a new village centre, a mix of housing types and densities distributed among residential and medium density residential areas, a strategic employment area, community gateways, schools and community facilities, a connected network of multi-use trails and a linked parks and open space system, based on Schedule A-2.
- b) The land use and circulation pattern for Komoka-Kilworth shall be based on Schedule A-2. The location of roads, multi-use trails, neighbourhood parks, potential school site, stormwater management facilities and boundaries of land uses shown on Schedule A-2 should be considered

approximate. Amendments will not be required for minor adjustments to the location of these features provided the general intent of this Plan is maintained, and subject to the policies of Section 1.4 of this Plan identifying circumstances where land use boundaries are to be considered absolute.

- c) The pattern of development is based on a distinction between private lands and the public realm. The public realm is composed of clearly defined and connected streets, parks and open spaces and multi-use trails and Schedule A-2 recognizes the need to plan for these public spaces. Development shall provide landscaping adjacent to the street or sidewalk to promote an attractive landscaped transition between the public and private realm.
- d) Development proposals will be encouraged to integrate energy and water conservation, efficiency and sustainability measures.

5.7.3 Komoka-Kilworth Village Centre Policies

The following policies apply to the land designated as “Village Centre” on Schedule A-2 in addition to the policies of Section 5.3:

- a) The Village Centre is planned to function as a centrally located traditional village main street providing a focal point and destination area for community gathering and identity, social interaction, local business and civic activity, in conjunction with and complemented by convenient access and connections to the Wellness and Recreation Centre.
- c) In addition to the permitted uses of Section 5.3.3, permitted uses in the Komoka-Kilworth Village Centre shall include mixed use buildings having a residential character including live/work units, provided the built form is in keeping with the policies of this section.
- d) The built form within the Village Centre area shall provide for consistent building massing, scale, height and setbacks to promote a pedestrian-friendly streetscape with active and engaging building facades at grade level, and residential above, with regular breaks in the street wall to facilitate pedestrian access and connectivity.

5.7.4 Komoka-Kilworth Residential Area Policies

The following policies apply to the land designated as “Residential” and “Medium Density Residential” on Schedule A-2 in addition to the policies of Section 5.2:

- a) The types of housing, density of development and targeted housing mix within the Residential and Medium Density Residential designations on Schedule A-2 are as follows:

| Use | Housing Mix Targets | Net Density (units per ha) |
|-----------------------------------------------|---------------------|----------------------------|
| Low density residential (e.g. singles, semis) | 60% | less than 20 |
| Medium density residential (e.g. townhouses) | 40% | 20 to 50 |

The net density refers to the land area to be used for housing as well as the abutting local streets, but does not include major streets and other residentially associated land uses. Notwithstanding the housing mix targets and net density provisions, multiple dwellings shall be permitted in the Residential designation in accordance with Section 5.2.3.

- c) *All residential development shall ensure appropriate orientation and massing of residential buildings to provide adequate private and public open spaces and to facilitate the penetration of sunlight into these spaces.*
- d) *Private garages for residential development shall not be located closer to the street than the habitable portion or porch on the main floor of the building and may be subject to maximum width and other requirements within the Municipality's Zoning By-law to limit the visual and streetscape impacts of garages and encourage a positive street frontage oriented to pedestrians, and shall have regard for the Municipality's Site Plan Manual and Urban Design Guidelines....*
- e) *Entrance features to new residential neighbourhood development shall be encouraged, provided that the features are landscape-related and require minimal maintenance.*

Policy Analysis

The proposed subdivision and zoning meets the intent of the Official Plan and Komoka-Kilworth Secondary Plan as follows:

- It assists in establishing and maintaining the Komoka-Kilworth Village Centre area as a retail and service centre by its inclusion of commercial uses within proposed mixed use buildings along Glendon Drive, which is the primary village main street connecting Komoka and Kilworth.
- Proposed zoning will permit a mix of low, medium and high density residential uses and housing types in conjunction with commercial uses, thereby contributing to compact form and land use. All proposed uses are consistent with the permitted uses specified in the OP.
- The proposed subdivision and mixed-use buildings along Glendon Drive contribute to the development of a "new mixed-use Village Centre", as outlined in Section 5.7.1.e) of the Secondary Plan, in proximity to the Komoka Wellness Centre
- Building scale and massing will be greater than currently exists within the Village Centre designation, as lands to the east are designated but yet to be developed. Existing uses to the west consist of 3 single family residential dwellings that are also within the Village Centre designation, therefore are likely to be redeveloped to higher intensity and/or commercial uses over time. Beyond these dwellings lies the primary retail centre of Komoka, including the Foodland and multiple other retail, restaurant and service uses, with the Komoka Wellness Centre slightly farther to the west. These buildings and uses are of a higher intensity and larger scale than exists elsewhere in Komoka. The proposed development, while proposed to be taller than that which currently exists on Glendon Drive, is of a suitable scale and intensity for the area in relation to the commercial and recreational uses. It will provide economic support to those uses while also giving future residents convenient pedestrian and cycling access to them.
- The proposed land uses and circulation pattern are in general accordance with Schedule A-2 of the Official Plan, which identifies Village Centre and Low Density residential uses for the subject site. The Village Centre uses extend slightly farther to the north with a slight reduction of the Low Density Residential Area, with the proposed Collector Road utilized as a logical delineation between the two uses. The Official Plan indicates that land use designation boundaries are considered approximate except where bounded by roads, railways, bodies of water or other geographic features.
- As there is no physical collector road in existence at this time, it is our opinion that the land use designations and collector road alignments are approximate in nature, and that the proposed subdivision maintains the intent of the Official Plan when considered in the context of the overall policies pertaining to residential and village centre designations. As the Village Centre designation to the immediate west extends the full depth of that site up to the railway, a slight extension of the Village Centre uses on the subject lands is both consistent and compatible with

those adjacent lands and has no negative impact on lands to the east as they are not yet developed. This allows for an appropriate transition between the low density uses north of the collector road and the higher intensity commercial/mixed use buildings along Glendon Drive and to the west. It also maintains the planned function of Collector Roads which is to serve light to moderate volumes of traffic for short travel distances and to provide connections between local and arterial roads.

- Within the low density residential area, a mix of single family and street townhouse housing types are proposed, which are permitted by the OP. Within the Village Centre area, stacked townhouses, apartments and mixed-use buildings are proposed.
- Section 5.7.4 identifies housing mix and density targets for Residential and Medium Density Residential designations. There are no density targets or housing mixes identified for Village Centres. The proposed subdivision anticipates a density of approximately 24 units per hectare within the Low-Density portion, based on the anticipated mix of 55% detached and 45% attached units in conjunction with the maximum proposed zoning. While this is very slightly in excess of the density target of 20 UPH, it is in general accordance with the OP when considered in the context of affordable and attainable housing goals. Within the subdivision as a whole, the anticipated housing mix is expected to be approximately 42% single/ townhouse/stacked townhouse form and 58% apartment form, with an overall gross density within the subdivision of 48 UPH based on maximum requested zoning and preliminary concept plans.
- The proposed subdivision and associated zoning will strongly contribute to the attainability and affordability goals of the municipality through the mix of housing types, tenure and density as there are very few to no existing options for rental apartments or stacked townhouses in Komoka. Proposed street townhouses and smaller lots within the low density portion of the site will also contribute to more affordable purchase options for residents.
- There are no existing buildings on site to be preserved for architectural or historical reasons.
- Parking for the proposed uses, particularly for the medium and high density residential uses, will be planned in an integrated manner at the site plan stage in conformity with the zoning by-law. Concept plans illustrate the intent to shield parking areas from view through building placement, and landscaping will be deployed strategically at the time of development.

Parks and Recreation

Applicable Policies

5.7.7 Komoka-Kilworth Parks and Recreation Area Policies

The following policies apply to the land designated as “Parks and Recreation” on Schedule A-2 in addition to the policies of Section 8.0:

- b) Development proposals for lands surrounding the Wellness and Recreation Centre shall be complementary to the planned function of the facility as the primary recreational destination, and shall provide for efficient access and a high level of connectivity to the site including the provision of walkways and community trails, pedestrian road crossings and wayfinding signage.*
- e) Existing and future Community and Neighbourhood Parks, Recreation Facilities and Multi-Use Trails are shown on Schedule A-2. The location of future parks and trails should be considered approximate and will be finalized through development proposals and in accordance with the following:*

iv) A Multi-Use Trail system providing continuous linkages among areas of housing, employment, commercial business and retail, the Village Centre and Wellness and Recreation Centre, Komoka Provincial Park, the Thames River, neighbourhood parks and open space and on-road pedestrian and cycling facilities, shall be provided generally as shown on Schedule A-2. To facilitate this, development proposals shall be required to include provisions for Multi-Use Trails and related walkway and on- road walking and cycling connections, and the dedication of land to the Municipality for the proposed Multi-Use Trails shall be required as a condition of development. Variations to the location of Multi-Use Trails may be permitted provided the intent of this Plan is maintained. The Municipality shall encourage the provision of supporting amenities such as bicycle parking, staging areas, benches, signage and other facilities, and this will be considered in the review and evaluation of all development proposals.

8.4 GENERAL MUNICIPAL PARKS AND RECREATION POLICIES

- d) The Municipality shall require that 5% of lands to be developed or redeveloped for residential purposes be conveyed for public park or recreational purposes. Land in the amount of 2% will be dedicated in the event of development or redevelopment for commercial or industrial purposes. Alternatively at the Municipality's discretion, a parkland dedication may be required at a rate of one hectare for each 300 dwelling units proposed in the context of a plan of subdivision application.*
- e) In the case of such parkland dedications, lands to be conveyed shall be of adequate size, dimension, drainage and grading for their intended recreational use, and will be of an appropriate size and shape to meet the needs and goals of the Municipality.*
- i) Parkland design, location and configuration will be such that parkland can act as an attractive and unifying community or settlement feature.*

Policy Analysis

- Schedule A-2 identifies a multi-use trail on the subject site. This has been provided on the draft plan of subdivision along the railway in accordance with Schedule A-2.
- In addition, a small neighbourhood park is planned for the subdivision to address parkland dedication requirements of Policy 8.4.
- The proposed park location adjacent to the stormwater management facility will provide an attractive and functional location for neighbourhood residents to enjoy passive and active outdoor activities, while its size recognizes that the primary recreation and activity node is to the west at the Komoka Wellness Centre.
- Walkways and mid-block connections are provided in the subdivision to provide access to the multi-use pathway as well as more direct pedestrian routes to the shopping and recreational village centre facilities to the west.

Servicing and Infrastructure

Applicable Policies

5.7.11 Komoka-Kilworth Servicing Policies

The following policies apply to the land shown on Schedule A-2 in addition to the policies of Section 9.3:...

- c) Full municipal services shall be required for all land use and development proposals that require services within the Komoka-Kilworth Urban Settlement Area and Secondary Plan.*

Sanitary Sewerage

- e) *The Municipality promotes gravity based sewerage servicing and seeks to minimize the transfer of sewage flows across drainage areas by pump stations. To provide a consistent basis for future planning of sanitary sewerage servicing, the Municipality will utilize the recommended servicing strategy for each sewershed.*

Stormwater Management

- h) *Existing and conceptual locations for future Stormwater Management (SWM) ponds are shown on Schedule A-2. The location and number of future SWM ponds should be considered approximate and revised locations and/or additional facilities shall be determined as a component of policies (k) and (l) below.*
- k) *Stormwater Management Plans shall be required for future land use and development proposals to address storm drainage and stormwater management issues and best management practices in accordance with the Municipality's Stormwater Management Policy Manual and shall include, but are not limited to, the following information...*

Policy Analysis

- Full municipal services will be provided for the subdivision, including gravity based sanitary sewers.
- A stormwater facility is not shown on Schedule A-2, but has been provided on the draft plan to address stormwater requirements as determined by the SWM study prepared for the application.

Natural Heritage, Natural Hazards and Groundwater Protection

No natural heritage features or natural hazards are identified on Schedule B – Greenlands System or Schedule C – Natural Hazard Lands for the subject site or immediately surrounding lands. Natural environment and natural hazard lands are shown north of the railway corridor. There are also no sourcewater features shown on Schedule F – Sourcewater Protection Areas within the proposed development area.



Schedule B – Greenlands System



Schedule C – Natural Hazard Lands

Applicable Policies

3.4 Greenland Features Overlay

....It is the policy of this Plan that development or site alterations within or on lands adjacent to the environmental features, save and except for those uses included in Section 3.5, shall be subject to completion of a Development Assessment Report acceptable to the Municipality....

Policy Review

Proposed development is more may be within 50 - 120m from the environmental features identified on Schedule B, and has an intervening railway corridor. As such, the Municipality has indicated that a DAR is not required at this stage. However, a scoped DAR may be required as a draft plan condition, should it be deemed necessary.

Transportation

Schedule D of the Official Plan identifies a County Road bounding the southerly limit, as well as a railway along the northerly boundary. Schedule A-2 also identifies a future collector road extending into the site from Glendon Drive and traversing from east to west. General policies pertaining to the transportation network and rail corridors are included in Section 9.4 of the OP. More specific policies are contained in Section 5.7.12 of the Secondary Plan.



Applicable Policies

5.7.12 Komoka-Kilworth Transportation Policies

Local Roads

vii) Future Local Road Connections are shown on Schedule “A-2” based on an extension of existing local road alignments and new roads proposed within future subdivisions. Actual Local Road alignments will be determined through specific development proposals in accordance with the policies of this Plan.

viii) The local street pattern shall be based on a grid or modified grid layout that maximizes community connectivity and convenience of active transportation modes including walking and cycling. Mid-block pedestrian walkways may be required for long blocks of development. New cul-de-sacs shall be avoided. Sidewalks should be provided on both sides of local streets, with certain exceptions such as single-loaded/window streets. Sidewalk locations shall be integrated with the Multi-Use Trail system shown on Schedule A-2.

Multi-Use Trails

ix) The Multi-Use Trails shown on Schedule A-2 shall be planned and provided as an integral part of the transportation system. To facilitate this, development proposals shall be required to include provisions for Multi- Use Trails and related walkway and on-road walking and cycling connections, and the dedication of land to the Municipality for the proposed Multi-Use Trails shall be required as a condition of development of the land. Variations to the location of Multi-Use Trails may be permitted provided the intent of this Plan is maintained. The Municipality shall encourage the provision of supporting amenities such as bicycle parking, staging areas, benches, signage and other facilities, and this will be considered in the review and evaluation of all development proposals. Opportunities will be explored to reduce parking standards in concert with enhanced pedestrian and cycling facilities.

9.4.4 Policies Relating to Railway Operations

a) All proposed development within 300 metres of an active railway right-of-way may be required to undertake noise studies, to the satisfaction of the Municipality and appropriate agencies in consultation

with the appropriate railway, and shall undertake appropriate measures to mitigate any adverse effects from noise identified.

b) All proposed development within 75 metres of an active railway right-of-way may also be required to undertake vibration studies, to the satisfaction of the Municipality and appropriate agencies in consultation with the appropriate railway, and shall undertake appropriate measures to mitigate any adverse effects from vibration identified.

c) All proposed development adjacent to active railways shall ensure that appropriate safety measures such as setbacks, berms and security fencing are provided, to the satisfaction of the Municipality in consultation with the appropriate railway.

Policy Analysis

The proposed development complies with the OP as follows:

- It includes a collector road alignment in accordance with the Secondary Plan.
- A block has been provided on the draft plan to allow for future widening of Glendon Road, in accordance with arterial road width requirements.
- The internal local street layout, extending north from the collector road, consists of four local streets in a grid pattern allowing for logical and efficient vehicular circulation.
- Mid-block pedestrian walkways are provided within the low density residential portion of the subdivision providing convenient pedestrian and cycling routes to the park. These will also provide excellent access to the retail and recreational uses to the west of the site once the intervening lands have been developed.
- A multi-use trail is also included along the northerly limits of the development along the railway corridor, in accordance with Schedule A-2.
- Noise and vibration assessments have been completed to address potential impacts from rail, transportation (Glendon Drive) and stationary noise sources (Masterfeeds).
- Compatible residential development can occur through the use of recommended building materials and construction methods, warning clauses, acoustic berms and/or walls, and implementation of Class 4 area designation relating to the Masterfeeds facility.
- The draft plan and proposed zoning provides for lot depths and rear yard setbacks to address vibration mitigation requirements. A block is also provided to allow for construction of the recommended noise berm and noise wall.
- Required warning clauses and building components can be addressed through draft plan conditions.

Aggregate Resources

Applicable Policies

Schedule A-2 includes an aggregate overlay on the subject site. As such, policies within Section 4.3 apply as follows:

For lands within or adjacent to Extractive Resource Area delineations or a licensed pit or quarry, the uses permitted are those of the designations underlying the Extractive Resource Areas overlay, so long as the use would not preclude or hinder extraction. The uses permitted may include, but are not limited to, agriculture, forestry, conservation and recreation. The specific uses permitted will be in the Zoning By-law. Where extraction may be hindered or precluded, development may occur only if:

- a) *resource use would not be feasible;*
- b) *or the proposed land uses or development serves a greater long term public interest; and*
- c) *issues of public health, safety and environmental impact are addressed.*

Policy Analysis

- As noted previously, geotechnical investigations have determined that the aggregate resources are not of sufficient quantity or quality for extraction.
- Residential uses on the site are of greater long-term benefit to the public interest.

Special Policy Areas

The proposed subdivision is located adjacent to a Special Policy Area (SPA#22) due to an existing industrial use. As residential uses are proposed within 300 m of the facility, the following policy applies.

SPA#22

2. Grain Handling Facility and CN Railway Corridor Buffer Areas Known municipally as 171 Railway Avenue, there is an existing grain handling facility located north and east of the subject land and adjacent to the CN Railway corridor on a property legally described as Part of Lot 6, Concession 2 and more specifically described as Part 1 on Reference Plan 33R-8745 (geographic Township of Lobo), in the Municipality of Middlesex Centre. Technical studies (e.g. noise study) will be required to facilitate development of sensitive land uses, including residential uses, within 300 metres of the grain handling facility and the railway corridor that are located in the area. The recommendations of the aforementioned studies would be implemented through subsequent development approvals, including but not limited to zoning by-law amendments, subdivision control and site plan control.

Policy Analysis

- A noise study has been conducted in accordance with the OP policy which concluded that impacts can generally be mitigated through an acoustic barrier, warning clause and seeking a Class 4 designation for the proposed development.

Urban Design

Policies pertaining to urban design, particularly with respect to new subdivisions, are contained in Section 6.2 of the Official Plan. In addition, The Municipality of Middlesex Centre Settlement Area Urban Design Guidelines were established “to assist in guiding the evolution of the urban fabric” of the various settlement areas, and include guidelines for both infill and greenfield development. They provide additional direction and detail to the policies included in the Official Plan and Secondary Plan. To minimize repetition, applicable policies and guidelines are excerpted below in italics. Review and analysis of these is provided at the end to address both documents.

Applicable Official Plan Policies

6.2 Design Policies – Plans of Subdivision

a) This Plan strongly encourages subdivision design that considers, and wherever possible continues, existing and traditional street patterns and neighbourhood structure. Neighbourhood patterns are encouraged to provide clearly defined neighbourhood centres and edges where appropriate. Design should emphasize connectivity and multiple route choice for pedestrians, cyclists and automobiles.

b) Where new plans of subdivision are proposed in settlement areas characterized by standard or modified block patterns or traditional street grids, the continuation of such patterns is encouraged unless more suitable or innovative patterns are agreed to. Cul- de-sacs are discouraged in such circumstances.

c) Street patterns that create view corridors and vistas, particularly in circumstances where significant landmarks or features are involved, are encouraged.

e) Designs that establish reverse lotting on Municipal roads, or require features such as noise attenuation or privacy fencing, are discouraged. Wherever possible, new residences will be oriented toward streets or parks.

f) Alternative development standards as set out in the Provincial document “Making Choices: Alternative Development Standards Guidelines” will be considered. Such standards may relate to:

- Boulevard widths, road rights-of-way and pavement widths.*
- Alternative standards for the spacing and location of underground services.*

g) Development shall have regard for the Municipality’s Urban Design Guidelines.

6.4 DESIGN POLICIES - STREETSCAPES AND PUBLIC OR SEMI-PUBLIC REALM

a) Streetscaping that reflects the intended character of settlement areas is encouraged. In particular, traditional streetscaping in Village Centres is encouraged. A coordinated approach should be taken to the planning and design of streetscape improvements in commercial areas, including the upgrading of building facades, signage, sidewalks, lighting, parking areas and landscaping.

b) Adequate buffering of off-street parking areas within Village Centres is encouraged, with appropriate design treatments to de-emphasize parking areas.

c) On-street parking is supported within Village Centres and within new residential neighbourhoods where appropriate.

d) Appropriate and traditional residential streetscaping, street design, and residential unit design is encouraged in the context of new plan of subdivision applications. Residential unit design includes issues of setback, garage placement, and architectural detailing.

e) The merits of traffic calming measures within new residential neighbourhoods will be studied and considered, as a method of decreasing vehicular speeds.

f) A network of public open spaces throughout the Municipality will be promoted with each space designed and integrated within neighbourhoods to act as visible and usable neighbourhood or community gathering places.

g) A high quality of park and open space design is strongly encouraged. The lands for park land dedication will be carefully selected to facilitate their use as a central focal point to new or existing neighbourhoods. Where possible, uses should front onto parks.

h) Development shall have regard for the Municipality’s Urban Design Guidelines

MIDDLESEX CENTRE SETTLEMENT AREA URBAN DESIGN GUIDELINES

Section 4 contains guidelines for new residential neighbourhoods. Many of these pertain to architectural design and style, massing, materials, etc. that are not applicable at the subdivision approval stage. However, relevant objectives and guidelines for the proposed subdivision include the following:

4.1 Design Objectives for New Residential Neighbourhoods

The primary goal for the design of new and sustainable neighbourhoods is the creation of attractive and healthy residential environments through the design of streetscapes, public open spaces, and

architectural forms. To support this vision, the primary design objectives for new neighbourhoods within the Municipality of Middlesex Centre are the:

- a) Design of safe, attractive, and energy-efficient neighbourhoods;*
- b) Design and development of attractive, comprehensively planned residential neighbourhoods that have a clear sense of organization;*
- d) Introduction of an integrated system of pedestrian walkways, bicycle paths, and open space trails that encourage physical activity and alternatives to the car for local travel;*
- e) Design of safe, quiet, tree-lined streets that provide visual variety and de-emphasize the presence of cars and garages as a dominant element in the streetscape;*
- f) Preservation, enhancement and creation of views and vistas of parks, natural heritage features and the rural landscape;*
- g) Creation of an attractive and varied visual experience when viewed from major roads through the minimizing of rear lotting and noise walls; and*
- h) Introduction of a memorable sense of place within the larger context of the Municipality of Middlesex Centre that supports the Municipality's rural image and character.*

4.2.1 Design Objectives for Residential Architecture

- e) The individual and collective design of houses and sitings shall encourage visual variety in streetscapes and development of attractive pedestrian environments.*

4.2.8 Architectural Integration of Garages

- b) Garages attached to the fronts or sides of houses or townhouses shall not project more than 2.4m (8ft.) beyond the face of the main front wall of the house on the first floor.*

4.8 Landscape Treatment Stormwater Management Ponds

- a) Stormwater management areas will be designed as open, aesthetic amenities, allowing for accessibility and for enhancing the visual quality of the natural landscape;*
- e) Where possible, stormwater management areas will be integrated with natural heritage features.*

5.1 Design Objectives for Multiple Dwellings

The design and siting of medium density housing within settlement areas shall support the following urban design objectives:

- a) The design, siting and massing of medium density housing shall promote a character and sense of scale that is compatible with other low rise residential housing types;*
- b) The individual and collective design and siting of medium density building types shall encourage an attractive and safe pedestrian environment and promote an eyes-on-the-street approach to the design of streetscapes;*
- c) The individual and collective design of buildings shall support a sense of scale that is appropriate to the scale of the streetscape and its landscaping;*
- e) Designs for buildings will de-emphasize the visual dominance of garages and parking in the streetscape; and*

- f) *In the design of a block townhouse development that contains frontage onto a public street, buildings shall be oriented to face and address onto the public street through their design massing and the locations of main building entrances.*

5.2 Building Orientation, Massing and Siting

- a) *Low rise apartment buildings shall be located to address the street with their massing, main entrances and lobbies;*

5.5 Parking

- a) *In the design of multiple unit block developments, on site parking shall not be located between buildings and a public street with the exception of individual driveways connecting to individual dwelling units in semi-detached or townhouse units;*

Response to Urban Design Policies and Guidelines

As previously noted, many of the urban design guidelines would be addressed at the site plan and building permit stage and have not been included in the foregoing summary. For those policies and guidelines that are more applicable to the subdivision and zoning by-law approvals stage, the proposed subdivision addresses them as follows:

- There are no existing street patterns in the vicinity of the site, however the proposed subdivision plan has been designed with a general grid pattern, carrying on the traditional street pattern existing in Komoka. Clearly defined edges are provided by the proposed collector road between differing housing types and densities.
- The proposed variety in forms of housing will contribute to compact and energy efficient development.
- It has been comprehensively designed with a logical street pattern and a range of uses and housing types that are suitable for the street classification on which they are located. Low density housing is located along local streets towards the rear of the development, whereas higher density forms of housing are situated along the arterial and collector street network, with commercial uses situated along the arterial.
- A multi-use trail system is proposed along the railway corridor and stormwater management pond, providing linkages to a neighbourhood park as well as to the existing commercial and recreational uses located to the west of the site. Mid-block walkways are also proposed from east to west to provide a direct pedestrian and cycling link to the proposed park.
- Four local streets connect to the collector street (Street B). The crescent form of these streets will contribute to quiet and safe streets as there are no opportunities for through traffic.
- Creation of views and vistas is addressed by locating the park directly abutting Street B, allowing for visual and physical access, as well as views through the park to the stormwater management facility and lands beyond.
- Mixed use buildings (apartment, ground floor commercial) are proposed along Glendon Drive, providing active frontages. No rear lotting is proposed along either Glendon Drive or the internal collector Street B.
- The proposed development will establish a new character along Glendon Drive, with the incorporation of medium and high density mixed-use buildings. Although not rural in character, Komoka-Kilworth is identified as an 'Urban Area' in the Official Plan, therefore the image and character are consistent with the long-term intentions of the area.

- Visual variety along streetscapes will be provided by the proposed mix of housing types, which include low and medium density residential, such as street townhouses, stacked townhouses and apartments.
- Garage projections will be addressed by the proposed zoning by-law to minimize the visual impact of attached garages.
- Medium density housing in proximity to existing and proposed low density housing is anticipated to be primarily street and stacked townhouse forms, with a maximum height of 3 to 4 storeys. This is an appropriate form and scale and provides a transition to higher density apartments.
- Preliminary concept plans for medium and high density buildings (street townhouses, stacked townhouses and apartments) are generally aligned to the streets, providing a safe, attractive streetscape with good visibility.
- An appropriate sense of scale is provided through the placement of single and street townhouse forms of development along local streets, with stacked townhouses and apartments along the collector street. Highest density buildings are aligned along Glendon Drive, an arterial street.
- Proposed concept plans for higher intensity buildings (apartments and stacked townhouses) locate all parking to the interior of the site. Little to no parking is anticipated to be located between the buildings and the street.



Experience. The Difference.™

Sifton Properties Limited
Planning Justification Report
10242 Glendon Drive

APPENDIX E

Aggregate Resources Assessment



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N6K 0G2

**Aggregate Resources Assessment
10242 Glendon Drive, Komoka, ON**

Dear Ms. Ooms:

Further to your request, EXP is providing the following comments regarding the "Aggregate Resources" designation from a geotechnical standpoint. It is understood that a Draft Plan of Subdivision for the above mentioned property is currently being prepared.

Based on a review of EXP's geotechnical report dated February 14, 2025, the overburden soils were found to vary inconsistently in composition between silts and sand/silt mixtures punctuated with silt lenses and layering, with clayey silt till observed in one of the boreholes. A total of 11 boreholes were advanced as part of the geotechnical investigation. Drawing 1, attached, identifies the locations of the boreholes. Two interpreted cross sections were developed from the information collected at the borehole locations. The cross sections are attached as Drawings 2 and 3. The borehole logs are appended to this letter.

Each borehole was surfaced with topsoil underlain variably by sand, silty sand, sandy silt, sand and silt, silt and clayey silt till. The sand that was encountered in some of the boreholes was noted inconsistently interbedded within the lenses, seams and layers of silt and sandy silt. Most of the materials excavated can be considered appropriate for re-use as road subgrade and trench backfill within the proposed subdivision, only.

The cross sections demonstrate the limited total quantity of potentially available aggregate resource and inconsistency in stratigraphy. The soil composition along the line of the cross-sections was used to graphically depict the site's underlying materials. Of important note is the layers of the fine to medium sand materials indicated in some of the boreholes projected onto the cross-section, in most cases do not have a similar counterpart in neighbouring boreholes along the cross-section, which suggests the intermittent, inconsistent and therefore limited nature of potentially extractable, isolated deposits.

Client: Sifton Properties Limited
Project Location: 10242 Glendon Drive, Komoka
Project Number: KCH-25002312-A0
Date: April 22, 2025

The most difficult obstacle to overcome in creating a viable aggregate resource at this location would be the intimately inter-layered nature of the sand deposits with the silty materials which would become mixed during extraction, rendering the potentially usable sands of little value as an aggregate resource.

Based on the frequency and inconsistency of the sand deposits, punctuated and separated by numerous silt and sandy silt lenses, seams and layers, aggregate extraction would likely require significant sorting and processing to render usable quantities of commercially viable aggregate due to the inconsistent, intimate layering of sands and silts. It is our opinion that there is insufficient quantity of aggregate resource of commercial grade quality at this site to consider this site commercially viable as an aggregate resource.

In addition to the physical scarcity of commercially viable aggregate, the economic feasibility of operating a commercial aggregate extraction operation with limited available quantities, likely requiring substantial processing operations, in close proximity to the pre-existing residential and commercial land use south, east and west of the site, would have to be taken into consideration. The capital investment required to implement measures to abate noise and dust to within provincially acceptable tolerances would have to be factored into production costs, further limiting the feasibility of creating a commercially viable aggregate extraction operation.

We trust this satisfies your present requirements. If you have any questions or require anything further, please feel free to contact our office.

Yours truly,

EXP Services Inc.



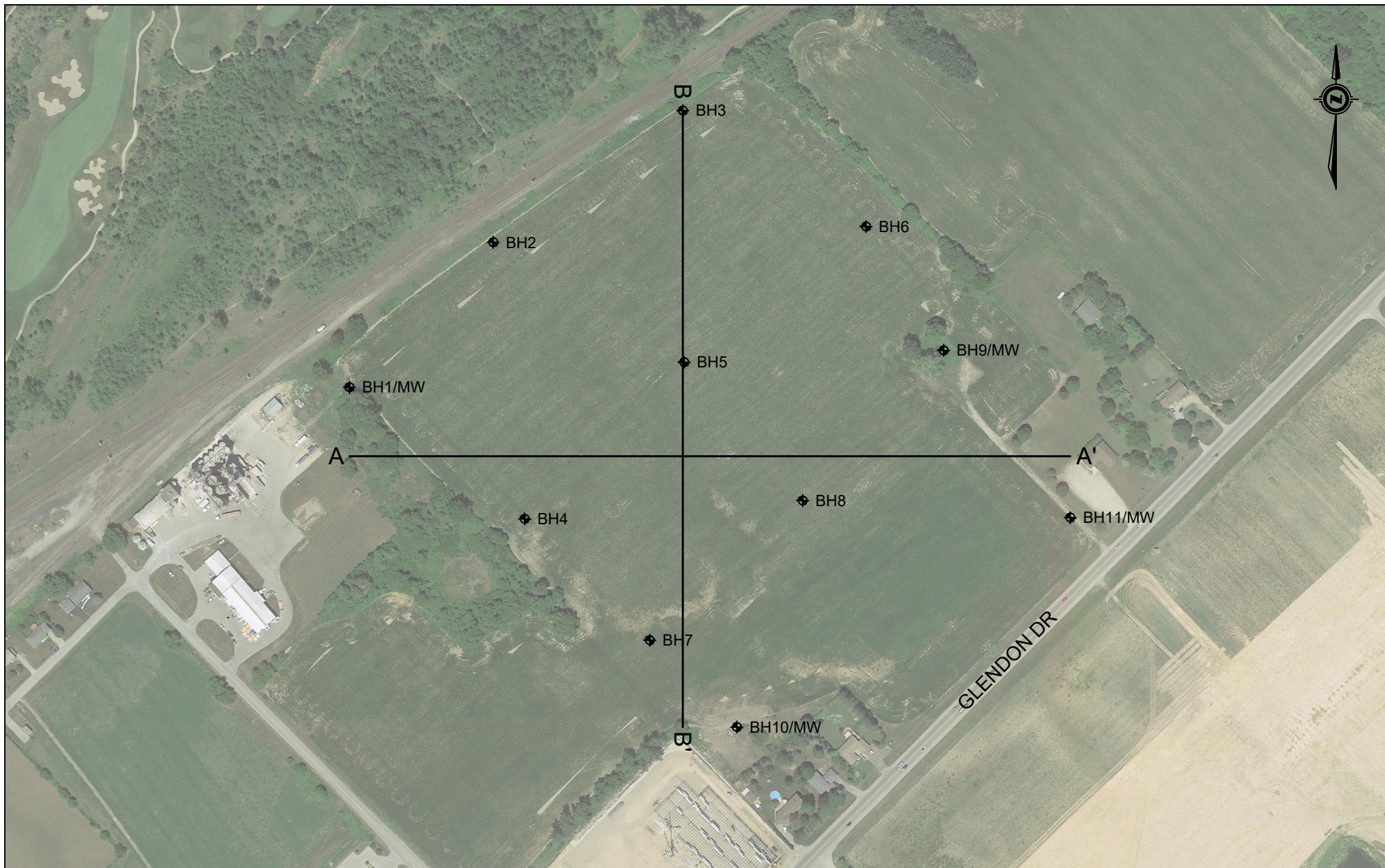
Eric M. Buchanan, P. Eng.
Geotechnical Services



Ralph D. Billings, P.Eng.
Geotechnical Services

Attachments: Drawing 1 – Borehole and Cross Section Location Plan
 Drawing 2 – Cross Section A-A'
 Drawing 3 – Cross Section B-B'
 Borehole Logs

Distribution: Ms. Nicole Ooms nicole.ooms@sifton .com



-NOTES-


1. The site plan was reproduced from Google Earth Pro and should be read in conjunction with EXP Letter Report KCH-25002312-A0 dated April 22, 2025.

-LEGEND-

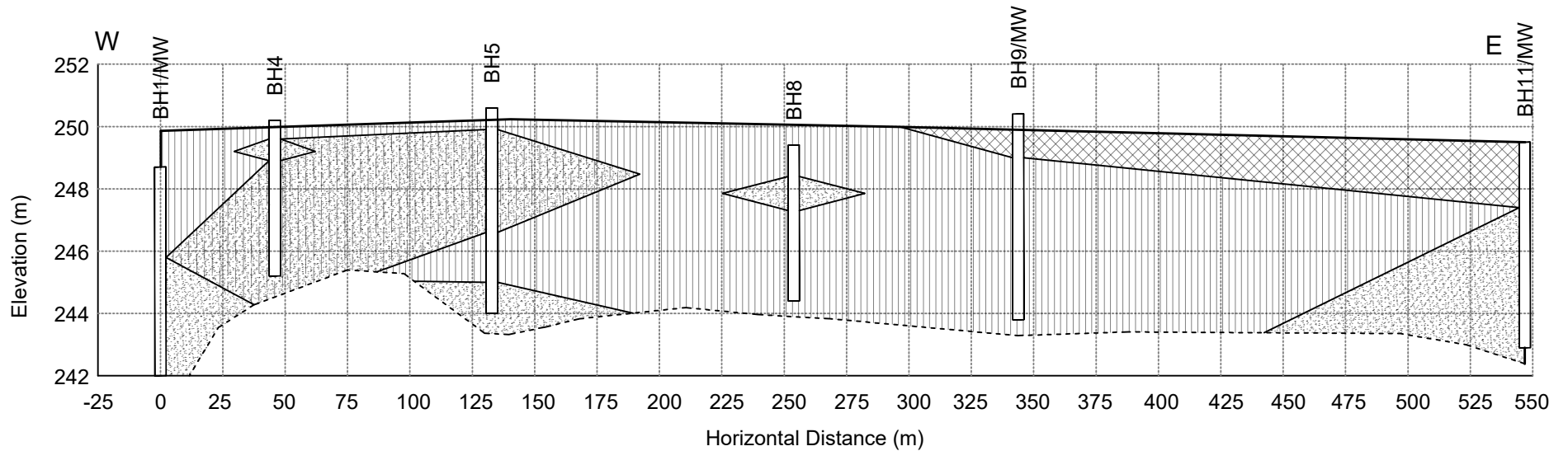
- ◆ BH1/MW Approximate Borehole Location
- A — A' Cross Section Location

Aggregate Resources Assessment

10242 Glendon Drive, Komoka, Ontario

| | | | | | |
|---------------------------------------------------------------------------------------|------------|----------------------------------------------|-------------------|------------------------------------------|-----------------|
| CLIENT | | | | Sifton Properties Ltd. | |
| TITLE | | | | Borehole and Cross Section Location Plan | |
| Prepared By: E.B. | | | Reviewed By: R.B. | | |
|  | | EXP Services Inc. | | | |
| | | 15701 Robin's Hill Road, London, ON, N5V 0A5 | | | |
| DATE | APRIL 2025 | APPROXIMATE SCALE | 1:4,000 | PROJECT NO. | KCH-25002312-A0 |
| DWG. | | | | | 1 |

Cross Section A-A'



-NOTES-

1. The cross section should be read in conjunction with EXP Letter Report KCH-25002312-A0 dated April 22, 2025.

-LEGEND-

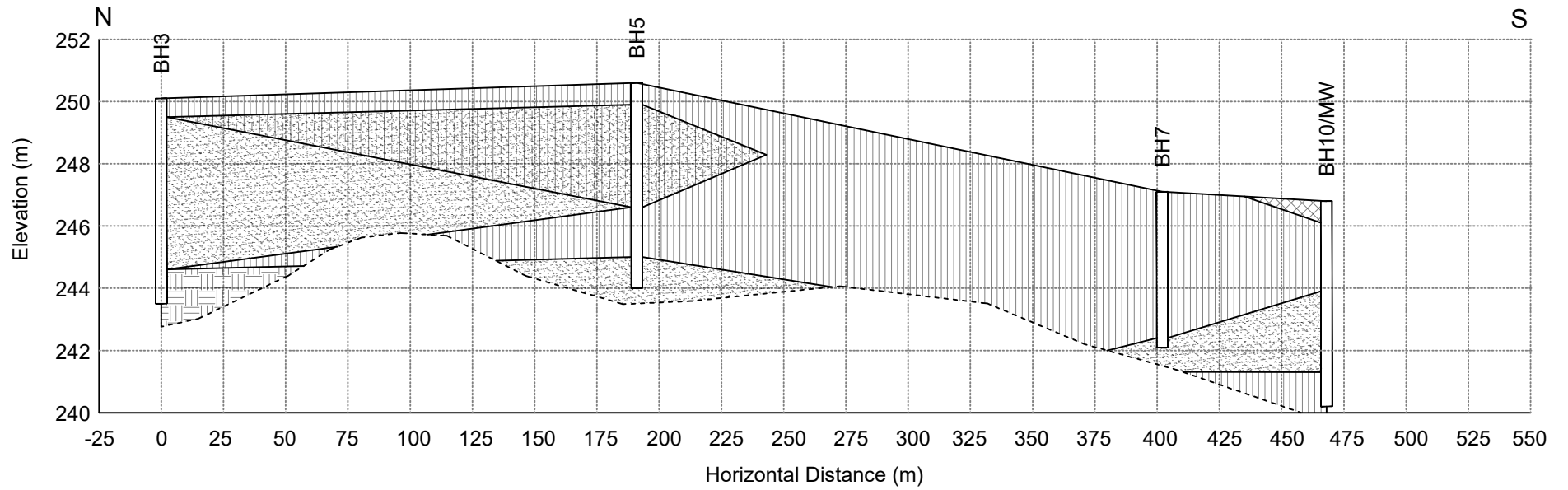
- | | | | |
|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|--------------------------|
|  | Fill |  | Silty Sand |
|  | Sand |  | Sandy Silt/Sand and Silt |

Aggregate Resources Assessment

10242 Glendon Drive, Komoka, Ontario

| | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| CLIENT Sifton Properties Ltd. | |
| TITLE Cross Section A-A' | |
| Prepared By: E.B. | Reviewed By: R.B. |
|  EXP Services Inc. 15701 Robin's Hill Road, London, ON, N5V 0A5 | |
| DATE APRIL 2025 | APPROXIMATE SCALE H - 1:2500; V - 1:200 |
| PROJECT NO. KCH-25002312-A0 | DWG. 2 |

Cross Section B-B'



-NOTES-

1. The cross section should be read in conjunction with EXP Letter Report KCH-25002312-A0 dated April 22, 2025.

-LEGEND-

- | | | | |
|-------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------|--------------------------|
|  | Fill |  | Silty Sand |
|  | Sand |  | Sandy Silt/Sand and Silt |
|  | Clayey Silt Till | | |

Aggregate Resources Assessment

10242 Glendon Drive, Komoka, Ontario

| | | | |
|---------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------|-----------|
| CLIENT Sifton Properties Ltd. | | | |
| TITLE Cross Section B-B' | | | |
| Prepared By: E.B. | | Reviewed By: R.B. | |
|  | | EXP Services Inc. 15701 Robin's Hill Road, London, ON, N5V 0A5 | |
| DATE APRIL 2025 | APPROXIMATE SCALE H - 1:2500; V - 1:200 | PROJECT NO. KCH-25002312-A0 | DWG. 3 |



BOREHOLE LOG

BH1/MW

Sheet 1 of 1

CLIENT Sifton Properties Ltd. PROJECT NO. KCH-25002312-A0
 PROJECT Proposed Development DATUM Geodetic
 LOCATION 10242 Glendon Drive, Komoka, ON DATES: Boring July 19, 2023 Water Level Jan 31/25

| DEPTH (m bgs) | ELEVATION (-m) | STRATA DESCRIPTION | STRATA PLOT | WELL LOG | SAMPLES | | | MOISTURE CONTENT (%) | SHEAR STRENGTH | | |
|------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------|---------|--------|------------------|----------------------------|-----------------------|-------------------------------------|--------------------------|
| | | | | | TYPE | NUMBER | RECOVERY (mm) | | N VALUE (blows) | ● S Field Vane Test (#=Sensitivity) | ▲ Penetrometer ■ Torvane |
| 0 | 248.7 | TOPSOIL - 290 mm | | | | | | | | | |
| 0 | 248.4 | SANDY SILT - brown, trace clay, trace gravel, trace organics and rootlets, very loose to loose, very moist - no organics or rootlets below 2.1 m bgs | | | SS | S1 | 450 | 2 | 20 | ● | ○ |
| 1 | | | | | SS | S2 | 450 | 4 | 19 | ● | ○ |
| 2 | | | | | SS | S3 | 450 | 6 | 18 | ● | ○ |
| 3 | 245.8 | SAND - brown, fine to medium grained, trace silt, trace gravel, loose to compact, moist - becoming very moist near 5.6 m bgs | | | SS | S4 | 600 | 11 | 9 | ● | ○ |
| 4 | | | | | SS | S5 | 600 | 27 | 7 | ○ | ● |
| 5 | | - becoming gravelly and wet near 6.6 m bgs | | | SS | S6 | 600 | 20 | 12 | ○ | ● |
| 6 | 242.0 | | | | | | | | | | |
| 7 | | End of borehole at 6.7 m bgs. | | | | | | | | | |

NOTES

- Borehole Log interpretation requires assistance by EXP before use by others and must be read in conjunction with EXP Report KCH-25002312-A0.
- bgs denotes below ground surface.
- No significant methane gas concentration was detected upon completion.
- Water Level Readings:
 August 2, 2023 - 5.73 m bgs, Elevation 242.94 m
 August 15, 2023 - 5.59 m bgs, Elevation 243.08 m
 January 31, 2025 - 6.07 m bgs, Elevation 242.60 m

SAMPLE LEGEND
 AS Auger Sample SS Split Spoon ST Shelby Tube
 Rock Core (eg. BQ, NQ, etc.) VN Vane Sample

OTHER TESTS
 G Specific Gravity C Consolidation
 H Hydrometer CD Consolidated Drained Triaxial
 S Sieve Analysis CU Consolidated Undrained Triaxial
 Unit Weight UU Unconsolidated Undrained Triaxial
 P Field Permeability UC Unconfined Compression
 K Lab Permeability DS Direct Shear

WATER LEVELS
 Apparent Measured Artesian (see Notes)



BOREHOLE LOG

BH2
Sheet 1 of 1

CLIENT Sifton Properties Ltd. PROJECT NO. KCH-25002312-A0
 PROJECT Proposed Development DATUM Geodetic
 LOCATION 10242 Glendon Drive, Komoka, ON DATES: Boring July 17, 2023 Water Level _____

| DEPTH (m bgs) | ELEVATION (-m) | STRATA DESCRIPTION | STRATA PLOT | WELL LOG | SAMPLES | | | MOISTURE (%) | SHEAR STRENGTH | | | | |
|------------------|-------------------|---------------------------------------------------------------------------------------------------------|-------------|----------|---------|--------|------------------|-----------------|--------------------|-------------------------------------|--------------------------|---|----|
| | | | | | TYPE | NUMBER | RECOVERY (mm) | | N VALUE (blows) | ● S Field Vane Test (#=Sensitivity) | ▲ Penetrometer ■ Torvane | | |
| 0 | 250.9 | TOPSOIL - 330 mm | | | | | | | | | | | |
| 0 | 250.6 | SILTY SAND - brown, fine grained, compact, moist - occasional cobbles encountered near 0.9 m bgs | | | SS | S1 | 525 | 2 | 17 | ● | ○ | | |
| 1 | | | | | SS | S2 | 250 | 26 | 6 | ● | | | |
| 2 | | | | | SS | S3 | 450 | 19 | 8 | ○ | ● | | |
| 2 | 248.8 | SAND AND SILT - brown, dense to very dense, moist - becoming very moist near 2.9 m bgs | | | SS | S4 | 450 | 43 | 14 | | ○ | ● | |
| 3 | | | | | SS | S5 | 450 | 52 | 15 | | ○ | ● | 52 |
| 5 | | | | | SS | S6 | 450 | 64 | 17 | | ○ | ● | 64 |
| 5 | 245.9 | End of borehole at 5.0 m bgs. | | | | | | | | | | | |

NOTES

- Borehole Log interpretation requires assistance by EXP before use by others and must be read in conjunction with EXP Report KCH-25002312-A0.
- bgs denotes below ground surface.
- Borehole open to 3.7 m bgs and dry upon completion of drilling.
- No significant methane gas concentration was detected upon completion.

SAMPLE LEGEND
 ☒ AS Auger Sample ☒ SS Split Spoon ■ ST Shelby Tube
 ☒ Rock Core (eg. BQ, NQ, etc.) ☒ VN Vane Sample

OTHER TESTS
 G Specific Gravity C Consolidation
 H Hydrometer CD Consolidated Drained Triaxial
 S Sieve Analysis CU Consolidated Undrained Triaxial
 γ Unit Weight UU Unconsolidated Undrained Triaxial
 P Field Permeability UC Unconfined Compression
 K Lab Permeability DS Direct Shear

WATER LEVELS
 ▽ Apparent ▼ Measured ▲ Artesian (see Notes)



BOREHOLE LOG

BH4

Sheet 1 of 1

CLIENT Sifton Properties Ltd. PROJECT NO. KCH-25002312-A0
 PROJECT Proposed Development DATUM Geodetic
 LOCATION 10242 Glendon Drive, Komoka, ON DATES: Boring July 17, 2023 Water Level _____

| DEPTH (m bgs) | ELEVATION (-m) | STRATA DESCRIPTION | STRATA PLOT | WELL LOG | SAMPLES | | | MOISTURE CONTENT (%) | SHEAR STRENGTH | | | | | | | | | |
|------------------|-------------------|------------------------------------------------------------------------------------------------------------|-------------|----------|---------|--------|------------------|----------------------------|-----------------------|-------------------------------------|--------------------------|--|--|--|--|--|--|--|
| | | | | | TYPE | NUMBER | RECOVERY (mm) | | N VALUE (blows) | ● S Field Vane Test (#=Sensitivity) | ▲ Penetrometer ■ Torvane | | | | | | | |
| 0 | 250.2 | TOPSOIL - 410 mm | | | | | | | | | | | | | | | | |
| 249.8 | | SANDY SILT - brown, trace clay, trace gravel, very loose, moist | | | SS | S1 | 600 | 2 | 16 | ● | ○ | | | | | | | |
| 249.6 | | | | | | | | | | | | | | | | | | |
| 1 | | SAND - brown, fine grained, trace silt, trace organics, compact, moist | | | SS | S2 | 400 | 13 | 4 | ● | ○ | | | | | | | |
| 248.9 | | | | | | | | | | | | | | | | | | |
| 2 | | SILTY SAND - brown, fine grained, compact to very dense, moist - becoming very moist near 4.0 m bgs | | | SS | S3 | 450 | 15 | 8 | ● | ○ | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| 3 | | | | | SS | S4 | 450 | 26 | 7 | ○ | ● | | | | | | | |
| 4 | | | | | SS | S5 | 450 | 56 | 8 | ○ | ● 56 | | | | | | | |
| 5 | 245.2 | End of borehole at 5.0 m bgs. | | | SS | S6 | 450 | 44 | 17 | ○ | ● | | | | | | | |

NOTES

- Borehole Log interpretation requires assistance by EXP before use by others and must be read in conjunction with EXP Report KCH-25002312-A0.
- bgs denotes below ground surface.
- Borehole open to 3.7 m bgs and dry upon completion of drilling.
- No significant methane gas concentration was detected upon completion.

SAMPLE LEGEND

AS Auger Sample SS Split Spoon ST Shelby Tube
 Rock Core (eg. BQ, NQ, etc.) VN Vane Sample

OTHER TESTS

G Specific Gravity C Consolidation
 H Hydrometer CD Consolidated Drained Triaxial
 S Sieve Analysis CU Consolidated Undrained Triaxial
 γ Unit Weight UU Unconsolidated Undrained Triaxial
 P Field Permeability UC Unconfined Compression
 K Lab Permeability DS Direct Shear

WATER LEVELS

Apparent Measured Artesian (see Notes)



BOREHOLE LOG

BH5

Sheet 1 of 1

CLIENT Sifton Properties Ltd. PROJECT NO. KCH-25002312-A0
 PROJECT Proposed Development DATUM Geodetic
 LOCATION 10242 Glendon Drive, Komoka, ON DATES: Boring July 17, 2023 Water Level _____

| DEPTH (m bgs) | ELEVATION (-m) | STRATA DESCRIPTION | STRATA PLOT | WELL LOG | SAMPLES | | | MOISTURE CONTENT (%) | SHEAR STRENGTH | |
|------------------|-------------------|----------------------------------------------------------------------------------------------|----------------|-------------|---------|--------|------------------|----------------------------|-----------------------|-------------------------------------|
| | | | | | TYPE | NUMBER | RECOVERY (mm) | | N VALUE (blows) | ● S Field Vane Test (#=Sensitivity) |
| 0 | 250.6 | TOPSOIL - 410 mm | | | | | | | | |
| 250.2 | | SANDY SILT - brown, weathered, trace clay, trace gravel, loose, very moist | | SS | S1 | 600 | 4 | 13 | ● | ○ |
| 249.9 | | | | | | | | | | |
| 1 | | SILTY SAND - brown, fine grained, compact to dense, moist - trace silt near 2.5 m bgs | | SS | S2 | 400 | 27 | 12 | | ○ |
| 2 | | | | | S3 | 450 | 26 | 7 | ○ | ● |
| 3 | | | | | S4 | 450 | 28 | 5 | ○ | ● |
| 4 | 246.6 | | | | S5 | 450 | 40 | 14 | | ○ |
| 5 | | SAND AND SILT - brown, compact, very moist | | SS | S6 | 450 | 27 | 20 | | ○ |
| 245.0 | | | | | | | | | | |
| 6 | | SAND - brown, fine to medium grained, trace silt, trace gravel, dense, wet | | SS | S7 | 450 | 42 | 20 | | ○ |
| 244.1 | | | | | | | | | | |
| 7 | | End of borehole at 6.6 m bgs. | | | | | | | | |

NOTES
 1) Borehole Log interpretation requires assistance by EXP before use by others and must be read in conjunction with EXP Report KCH-25002312-A0.
 2) bgs denotes below ground surface.
 3) Borehole open to 5.2 m bgs and dry upon completion of drilling.
 4) No significant methane gas concentration was detected upon completion.

SAMPLE LEGEND
 ☒ AS Auger Sample ☒ SS Split Spoon ■ ST Shelby Tube
 ☒ Rock Core (eg. BQ, NQ, etc.) ☒ VN Vane Sample

OTHER TESTS
 G Specific Gravity C Consolidation
 H Hydrometer CD Consolidated Drained Triaxial
 S Sieve Analysis CU Consolidated Undrained Triaxial
 γ Unit Weight UU Unconsolidated Undrained Triaxial
 P Field Permeability UC Unconfined Compression
 K Lab Permeability DS Direct Shear

WATER LEVELS
 ▽ Apparent ▼ Measured ▲ Artesian (see Notes)



BOREHOLE LOG

BH6

Sheet 1 of 1

CLIENT Sifton Properties Ltd. PROJECT NO. KCH-25002312-A0
 PROJECT Proposed Development DATUM Geodetic
 LOCATION 10242 Glendon Drive, Komoka, ON DATES: Boring July 17, 2023 Water Level _____

| DEPTH (m bgs) | ELEVATION (-m) | STRATA DESCRIPTION | STRATA PLOT | WELL LOG | SAMPLES | | | MOISTURE CONTENT (%) | SHEAR STRENGTH | |
|------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------|---------|--------|------------------|----------------------------|-----------------------|-------------------------------------|
| | | | | | TYPE | NUMBER | RECOVERY (mm) | | N VALUE (blows) | ● S Field Vane Test (#=Sensitivity) |
| 0 | 250.8 | TOPSOIL - 390 mm | | | | | | | | |
| 250.4 | | SANDY SILT - brown, weathered, trace clay, trace gravel, trace organics, very loose, very moist - becoming dilatant below 1.4 m bgs | | SS | S1 | 600 | 2 | 25 | ● | ○ |
| -1 | | | | | S2 | 225 | 0 | 17 | ● | ○ |
| 248.9 | | | | | S3 | 325 | 1 | 24 | ● | ○ |
| -2 | | SILTY SAND - brown, fine grained, loose to compact, moist - trace silt near 3.0 m bgs | | SS | S4 | 450 | 20 | 9 | ○ | ● |
| -3 | | | | | S5 | 450 | 23 | 8 | ○ | ● |
| -4 | | | | | S6 | 450 | 21 | 19 | ○ | ● |
| 245.2 | | SAND - brown, fine to medium grained, some silt, dense, wet | | SS | S7 | 450 | 31 | 20 | ○ | ● |
| -6 | | | | | | | | | | |
| 244.2 | | End of borehole at 6.6 m bgs. | | | | | | | | |
| -7 | | | | | | | | | | |

NOTES

- Borehole Log interpretation requires assistance by EXP before use by others and must be read in conjunction with EXP Report KCH-25002312-A0.
- bgs denotes below ground surface.
- Borehole open to 5.5 m bgs and dry upon completion of drilling.
- No significant methane gas concentration was detected upon completion.

SAMPLE LEGEND

AS Auger Sample SS Split Spoon ST Shelby Tube
 Rock Core (eg. BQ, NQ, etc.) VN Vane Sample

OTHER TESTS

G Specific Gravity C Consolidation
 H Hydrometer CD Consolidated Drained Triaxial
 S Sieve Analysis CU Consolidated Undrained Triaxial
 γ Unit Weight UU Unconsolidated Undrained Triaxial
 P Field Permeability UC Unconfined Compression
 K Lab Permeability DS Direct Shear

WATER LEVELS

Apparent Measured Artesian (see Notes)



BOREHOLE LOG

BH7
Sheet 1 of 1

CLIENT Sifton Properties Ltd. PROJECT NO. KCH-25002312-A0
 PROJECT Proposed Development DATUM Geodetic
 LOCATION 10242 Glendon Drive, Komoka, ON DATES: Boring July 19, 2023 Water Level _____

| DEPTH (m bgs) | ELEVATION (-m) | STRATA DESCRIPTION | STRATA PLOT | WELL LOG | SAMPLES | | | MOISTURE CONTENT (%) | SHEAR STRENGTH | |
|------------------|-------------------|---------------------------------------------------------------------------------------|-------------|----------|---------|--------|------------------|----------------------------|-----------------------|-------------------------------------|
| | | | | | TYPE | NUMBER | RECOVERY (mm) | | N VALUE (blows) | ● S Field Vane Test (#=Sensitivity) |
| 0 | 247.1 | TOPSOIL - 280 mm | | | | | | | | |
| 0 | 246.8 | SANDY SILT - brown, weathered, trace clay, trace gravel, very loose to compact, moist | | | SS | S1 | 550 | 3 | 15 | ● ○ |
| 1 | | - becoming dilatant and very moist near 1.4 m bgs | | | SS | S2 | 75 | 5 | 19 | ● ○ |
| 2 | | | | | SS | S3 | 400 | 18 | 19 | ● ○ |
| 3 | | | | | SS | S4 | 450 | 17 | 20 | ● ○ |
| 4 | | | | | SS | S5 | 450 | 14 | 26 | ● ○ |
| 5 | | | | | SS | S6 | 400 | 16 | 20 | ● ○ |
| 5 | 242.4 | SAND - brown, fine to medium grained, trace silt, trace gravel, compact, wet | | | | | | | | |
| 5 | 242.1 | End of borehole at 5.0 m bgs. | | | | | | | | |

NOTES

- Borehole Log interpretation requires assistance by EXP before use by others and must be read in conjunction with EXP Report KCH-25002312-A0.
- bgs denotes below ground surface.
- Borehole open to 4.3 m bgs and water measured near 4.1 m bgs upon completion of drilling.
- No significant methane gas concentration was detected upon completion.

SAMPLE LEGEND

AS Auger Sample SS Split Spoon ST Shelby Tube
 Rock Core (eg. BQ, NQ, etc.) VN Vane Sample

OTHER TESTS

G Specific Gravity C Consolidation
 H Hydrometer CD Consolidated Drained Triaxial
 S Sieve Analysis CU Consolidated Undrained Triaxial
 γ Unit Weight UU Unconsolidated Undrained Triaxial
 P Field Permeability UC Unconfined Compression
 K Lab Permeability DS Direct Shear

WATER LEVELS

Apparent Measured Artesian (see Notes)



BOREHOLE LOG

BH8

Sheet 1 of 1

CLIENT Sifton Properties Ltd. PROJECT NO. KCH-25002312-A0
 PROJECT Proposed Development DATUM Geodetic
 LOCATION 10242 Glendon Drive, Komoka, ON DATES: Boring July 19, 2023 Water Level _____

| DEPTH (m bgs) | ELEVATION (-m) | STRATA DESCRIPTION | STRATA PLOT | WELL LOG | SAMPLES | | | MOISTURE CONTENT (%) | SHEAR STRENGTH | |
|------------------|-------------------|--------------------------------------------------------------------------------|----------------|-------------|---------|--------|------------------|----------------------------|-----------------------|-------------------------------------|
| | | | | | TYPE | NUMBER | RECOVERY (mm) | | N VALUE (blows) | ● S Field Vane Test (#=Sensitivity) |
| 0 | 249.4 | TOPSOIL - 530 mm | | | SS | S1 | 600 | 5 | 20 | ● |
| 1 | 248.9 | SANDY SILT - brown, weathered, trace clay, trace gravel, loose, moist | | | SS | S2 | 450 | 13 | 15 | ● |
| 2 | 248.4 | SAND - brown, fine to medium grained, trace silt, trace gravel, compact, moist | | | SS | S3 | 450 | 13 | 7 | ● |
| 3 | 247.3 | SANDY SILT - brown, trace clay, compact to dense, very moist to wet | | | SS | S4 | 450 | 36 | 17 | ● |
| 4 | | | | | SS | S5 | 450 | 29 | 21 | ● |
| 5 | 244.4 | End of borehole at 5.0 m bgs. | | | SS | S6 | 450 | 36 | 17 | ● |

NOTES

- Borehole Log interpretation requires assistance by EXP before use by others and must be read in conjunction with EXP Report KCH-25002312-A0.
- bgs denotes below ground surface.
- Borehole open to 4.3 m bgs and dry upon completion of drilling.
- No significant methane gas concentration was detected upon completion.

SAMPLE LEGEND

AS Auger Sample SS Split Spoon ST Shelby Tube
 Rock Core (eg. BQ, NQ, etc.) VN Vane Sample

OTHER TESTS

G Specific Gravity C Consolidation
 H Hydrometer CD Consolidated Drained Triaxial
 S Sieve Analysis CU Consolidated Undrained Triaxial
 γ Unit Weight UU Unconsolidated Undrained Triaxial
 P Field Permeability UC Unconfined Compression
 K Lab Permeability DS Direct Shear

WATER LEVELS

Apparent Measured Artesian (see Notes)



BOREHOLE LOG

BH9/MW

Sheet 1 of 1

CLIENT Sifton Properties Ltd. PROJECT NO. KCH-25002312-A0
 PROJECT Proposed Development DATUM Geodetic
 LOCATION 10242 Glendon Drive, Komoka, ON DATES: Boring July 13, 2023 Water Level Jan 31/25

| DEPTH (m bgs) | ELEVATION (-m) | STRATA DESCRIPTION | STRATA PLOT | WELL LOG | SAMPLES | | | MOISTURE CONTENT (%) | SHEAR STRENGTH | |
|------------------|-------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------|---------------|---------|--------|------------------|----------------------------|-----------------------|-------------------------------------|
| | | | | | TYPE | NUMBER | RECOVERY (mm) | | N VALUE (blows) | ● S Field Vane Test (#=Sensitivity) |
| 0 | 250.4 | TOPSOIL - 75 mm FILL - sand and gravel, brown, trace silt, loose, moist | [Cross-hatch pattern] | [Solid black] | | | | | | |
| 1 | 249.0 | SANDY SILT - brown, trace clay, loose to compact, moist - becoming very moist to wet near 2.9 m bgs | [Dotted pattern] | [Solid black] | SS | S1 | 225 | 7 | | |
| 2 | | | | | SS | S2 | 450 | 5 | 10 | |
| 3 | | | | | SS | S3 | 450 | 10 | 20 | |
| 4 | | | | | SS | S4 | 450 | 26 | 21 | |
| 5 | | | | | SS | S5 | 450 | 29 | 18 | |
| 6 | | | | | SS | S6 | 450 | 36 | 17 | |
| 7 | 243.8 | End of borehole at 6.6 m bgs. | | | | | | | | |

NOTES

- Borehole Log interpretation requires assistance by EXP before use by others and must be read in conjunction with EXP Report KCH-25002312-A0.
- bgs denotes below ground surface.
- No significant methane gas concentration was detected upon completion.
- Water Level Readings:
 August 2, 2023 - 4.37 m bgs, Elevation 245.98 m
 August 15, 2023 - 4.61 m bgs, Elevation 245.74 m
 January 31, 2025 - 4.70 m bgs, Elevation 245.65 m

SAMPLE LEGEND

| | | |
|-----------------------------------------------|-----------------------------------|------------------------------|
| [Cross-hatch pattern] AS Auger Sample | [Dotted pattern] SS Split Spoon | [Solid black] ST Shelby Tube |
| [Vertical lines] Rock Core (eg. BQ, NQ, etc.) | [Horizontal lines] VN Vane Sample | |

OTHER TESTS

| | |
|----------------------|--------------------------------------|
| G Specific Gravity | C Consolidation |
| H Hydrometer | CD Consolidated Drained Triaxial |
| S Sieve Analysis | CU Consolidated Undrained Triaxial |
| γ Unit Weight | UU Unconsolidated Undrained Triaxial |
| P Field Permeability | UC Unconfined Compression |
| K Lab Permeability | DS Direct Shear |

WATER LEVELS

| | | |
|------------|------------|------------------------|
| ▽ Apparent | ▼ Measured | ▲ Artesian (see Notes) |
|------------|------------|------------------------|



BOREHOLE LOG

BH10/MW

Sheet 1 of 1

CLIENT Sifton Properties Ltd. PROJECT NO. KCH-25002312-A0
 PROJECT Proposed Development DATUM Geodetic
 LOCATION 10242 Glendon Drive, Komoka, ON DATES: Boring July 19, 2023 Water Level Jan 31/25

| DEPTH (m bgs) | ELEVATION (-m) | STRATA DESCRIPTION | STRATA PLOT | WELL LOG | SAMPLES | | | MOISTURE CONTENT (%) | SHEAR STRENGTH | |
|------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------|---------|--------|------------------|----------------------------|-----------------------|-------------------------------------|
| | | | | | TYPE | NUMBER | RECOVERY (mm) | | N VALUE (blows) | ● S Field Vane Test (#=Sensitivity) |
| 0 | 246.8 | FILL - sand and gravel, brown, trace silt, loose, moist | [Cross-hatch] | [Solid black] | SS | S1 | 500 | 7 | 4 | ○ ● |
| 1 | 246.1 | SANDY SILT - brown, trace clay, dense to very dense, moist to very moist | [Vertical lines] | [Solid black] | SS | S2 | 450 | 33 | 18 | ○ ● |
| 2 | | - moist sand layer encountered near 1.6 m bgs | [Vertical lines] | [Solid black] | SS | S3 | 450 | 44 | 14 | ○ ● |
| 3 | 243.9 | SAND - brown, fine to medium grained, trace silt, trace gravel, very dense, very moist - silt layering encountered near 3.0 m bgs - becoming wet near 3.2 m bgs | [Dotted] | [Solid black] | SS | S4 | 450 | 55 | 14 | ○ ● |
| 4 | | | [Dotted] | [Solid black] | SS | S5 | 450 | 61 | 16 | ○ ● |
| 5 | 241.3 | SILT - grey, trace to some clay, some sand, very dense, moist | [Vertical lines] | [Solid black] | SS | S6 | 250 | 50* | 14 | ○ ● |
| 6 | 240.3 | End of borehole at 6.6 m bgs. | [Vertical lines] | [Solid black] | SS | S7 | 250 | 50* | 14 | ○ ● |

NOTES

- Borehole Log interpretation requires assistance by EXP before use by others and must be read in conjunction with EXP Report KCH-25002312-A0.
- bgs denotes below ground surface.
- No significant methane gas concentration was detected upon completion.
- * denotes N=50 blows per less than 150 mm split spoon sampler penetration.
- Water Level Readings:
 August 2, 2023 - 3.38 m bgs, Elevation 243.45 m
 August 15, 2023 - 3.61 m bgs, Elevation 243.22 m
 January 31, 2025 - 3.79 m bgs, Elevation 243.04 m

SAMPLE LEGEND
 [Cross-hatch] AS Auger Sample [Vertical lines] SS Split Spoon [Solid black] ST Shelby Tube
 [Dotted] Rock Core (eg. BQ, NQ, etc.) [Vertical lines with dots] VN Vane Sample

OTHER TESTS
 G Specific Gravity C Consolidation
 H Hydrometer CD Consolidated Drained Triaxial
 S Sieve Analysis CU Consolidated Undrained Triaxial
 γ Unit Weight UU Unconsolidated Undrained Triaxial
 P Field Permeability UC Unconfined Compression
 K Lab Permeability DS Direct Shear

WATER LEVELS
 ▽ Apparent ▼ Measured ▲ Artesian (see Notes)



BOREHOLE LOG

BH11/MW

Sheet 1 of 1

CLIENT Sifton Properties Ltd. PROJECT NO. KCH-25002312-A0
 PROJECT Proposed Development DATUM Geodetic
 LOCATION 10242 Glendon Drive, Komoka, ON DATES: Boring July 13, 2023 Water Level Jan 31/25

| DEPTH (m bgs) | ELEVATION (-m) | STRATA DESCRIPTION | STRATA PLOT | WELL LOG | SAMPLES | | | MOISTURE CONTENT (%) | SHEAR STRENGTH | |
|------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------|---------|--------|------------------|----------------------------|-----------------------|-------------------------------------|
| | | | | | TYPE | NUMBER | RECOVERY (mm) | | N VALUE (blows) | ● S Field Vane Test (#=Sensitivity) |
| 0 | 249.5 | FILL - sand and gravel, brown, trace silt, compact, moist | | | | | | | | |
| 1 | | | | | SS | S1 | 280 | 16 | 3 | ○ ● |
| 2 | 247.4 | | | | SS | S2 | 400 | 28 | 3 | ○ ● |
| 3 | | SAND - brown, fine to medium grained, trace silt, trace gravel, compact to very dense, moist to very moist - occasional sandy silt lenses throughout | | | SS | S3 | 425 | 15 | 11 | ○ ● |
| 4 | | | | | SS | S4 | 450 | 83 | 16 | ○ ● 83 |
| 5 | | - becoming wet near 4.0 m bgs | | | SS | S5 | 450 | 50* | 17 | ○ ● |
| 6 | 242.9 | | | | SS | S6 | 290 | 50* | 12 | ○ ● |
| 7 | | End of borehole at 6.6 m bgs. | | | | | | | | |

NOTES

- Borehole Log interpretation requires assistance by EXP before use by others and must be read in conjunction with EXP Report KCH-25002312-A0.
- bgs denotes below ground surface.
- No significant methane gas concentration was detected upon completion.
- * denotes N=50 blows per less than 150 mm split spoon sampler penetration.
- Water Level Readings:
 August 2, 2023 - 3.24 m bgs, Elevation 246.25 m
 August 15, 2023 - 3.34 m bgs, Elevation 246.15 m
 January 31, 2025 - 3.62 m bgs, Elevation 245.87 m

SAMPLE LEGEND

AS Auger Sample SS Split Spoon ST Shelby Tube
 Rock Core (eg. BQ, NQ, etc.) VN Vane Sample

OTHER TESTS

G Specific Gravity C Consolidation
 H Hydrometer CD Consolidated Drained Triaxial
 S Sieve Analysis CU Consolidated Undrained Triaxial
 γ Unit Weight UU Unconsolidated Undrained Triaxial
 P Field Permeability UC Unconfined Compression
 K Lab Permeability DS Direct Shear

WATER LEVELS

Apparent Measured Artesian (see Notes)

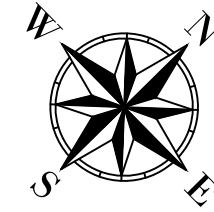


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Sifton Properties Limited
Planning Justification Report
10242 Glendon Drive

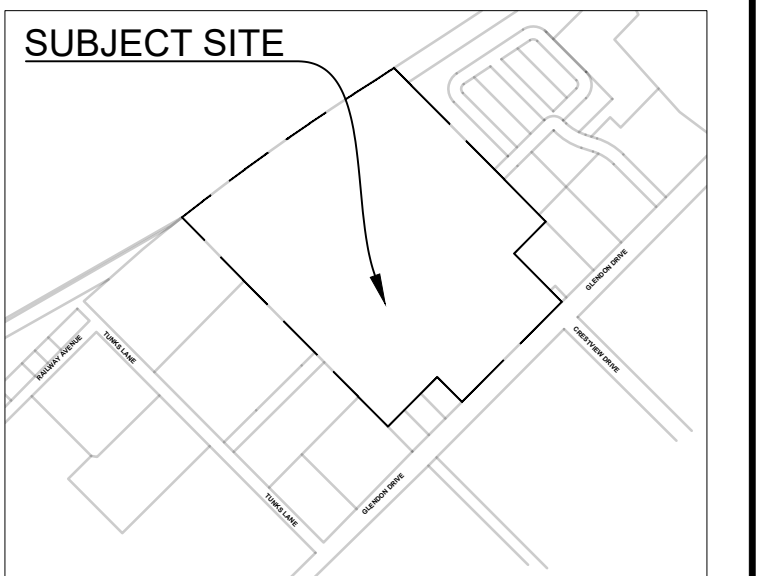
APPENDIX F

Noise Exceedance Requiring Mitigation



DRAFT PLAN OF SUBDIVISION

CON 2 S PT LOT 7
10242 GLENDON DRIVE
KOMOKA, ONTARIO N0L 1R0



KEY PLAN - N.T.S.

OWNER'S CERTIFICATE
I hereby consent to the filing of this Plan in Draft Form.

Richard Sifton
President & CEO Date

Phillip Masschelein
Senior Vice President
Neighbourhood Developments Date

SURVEYOR'S CERTIFICATE
I hereby certify that the boundary of the lands to be subdivided as shown on this plan and their relationship to the adjacent lands are accurately and correctly shown.

Robert Wood, O.L.S.
Surveyor Date

REQUIREMENTS UNDER SECTION 51 (17) OF THE PLANNING ACT, 1990

- a) as shown on plan
- b) as shown on plan
- c) as shown on key plan
- d) as shown on land use schedule
- e) as shown on plan
- f) as shown on plan
- g) as shown on plan
- h) municipal water
- i) clayey silt fill
- j) as shown on plan
- k) municipal sewers
- l) as shown on plan

| LAND USE SCHEDULE | | |
|----------------------------------------------------------------------|--------------|------------|
| LAND USES | HECTARES | PERCENT |
| BLOCKS: 1 - 10 Low Density Residential | 3.79 | 21.0 |
| BLOCKS: 11 - 16 Medium Density Residential - Street Townhouses | 1.75 | 9.7 |
| BLOCKS: 17 & 18 Medium Density Residential | 2.42 | 13.4 |
| BLOCK: 19 Medium / High Density Residential | 1.52 | 8.4 |
| BLOCK: 20 Mixed Use Development | 2.08 | 11.5 |
| BLOCK: 21 & 22 Parkland | 0.67 | 3.7 |
| BLOCKS: 25 - 28 Municipal Walkways | 0.07 | 0.4 |
| BLOCKS: 23, 24, 29 & 30 Open Space | 1.20 | 6.7 |
| BLOCK: 31 Storm Water Management Pond | 1.10 | 6.1 |
| BLOCKS: 32, 33 & 34 Future Development | 0.06 | 0.4 |
| BLOCKS: 35, 36 & 37 0.3 Reserve | 0.00 | 0.0 |
| Proposed Roads and ROW | 3.41 | 18.9 |
| TOTAL SITE AREA | 18.06 | 100 |



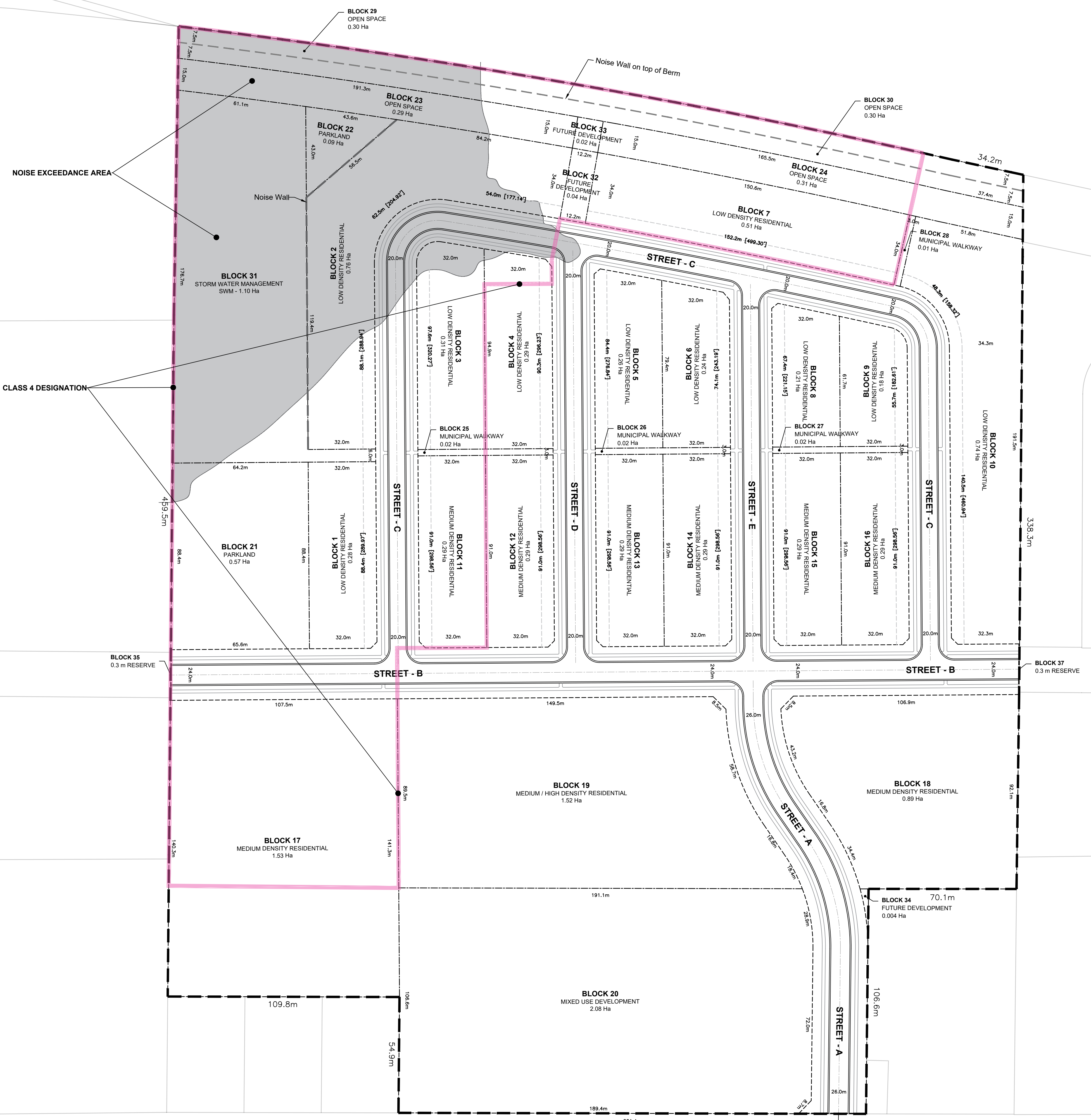
Experience. The Difference.™

1: 1,000



DRAFT PLAN OF SUBDIVISION
10242 GLENDON DRIVE
KOMOKA, ONTARIO, N0L1R0

DESIGNED BY: AL APPROVED BY: NO DATE: 15 May 2025



GLENDON DRIVE

GLENDON DRIVE



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Sifton Properties Limited
Planning Justification Report
10242 Glendon Drive

APPENDIX G

Record of Pre-Consultation



Pre-Application Consultation Record

TO: Sifton Properties Ltd.

FROM: Stephanie Bergman, Middlesex Centre; Marion Cabral, Middlesex County

DATE: December 19, 2024

RE: Proposed Development at 10242 Glendon Drive

Thank you for meeting with us and for providing us with the concept for the property at 10242 Glendon Drive dated October 23, 2024. We've provided preliminary comments on the application below, as well as anticipated requirements for a complete application.

Required Applications:

Official Plan Amendment (*potentially required*) – The lands are currently designated Residential and Village Centre within the Komoka-Kilworth Secondary Plan as part of the Middlesex Centre Official Plan, which generally permits the range of low-medium and mixed uses identified within the concept. However, particularly with respect to the higher densities proposed, we would ask the proponent to demonstrate how the proposal aligns with the current policies, and whether or not site-specific provisions, potentially in the form of a special policy area, may be required or beneficial to set out the vision for future development of these lands.

Zoning Bylaw Amendment (*required*)

Plan of Subdivision (*required*)

Comments and Complete Application Requirements

Planning

1. We would encourage the proponent to work with the adjacent property owners to the west and east to consider a joint submission to ensure the area is planned in a comprehensive, coordinated manner.
2. Noise and Vibration – a noise and vibration assessment is required to assess outputs from 2 source points – the railway and industrial use to the west

(Masterfeeds). If residential uses are proposed fronting Glendon Drive, the noise study should also address transportation noise from Glendon Drive.

3. Note that there is an existing Enbridge Gas facility located directly adjacent to the primary collector. We recommend pre-consultation with Enbridge to identify any potential impacts.
4. We request a concept plan for the townhouse and higher density developments blocked to ensure that zoning doesn't create any conflicts with the proposed development on-site and abutting blocks.
5. Parking: Our current zoning bylaw requires 1.5 spaces per unit for townhouses and apartments. Visitor parking spaces also need to be accommodated on-site. While not yet in force, our proposed new Zoning Bylaw requires .15 visitor spaces per unit for multi-unit developments. We also note that Council has recently expressed concerns with the current parking rate for townhouse and multi-unit developments, and has asked staff to undertake a review, and report back on potential options. We encourage the proponent to explore innovative approaches to achieving a level of parking that is appropriate for this community, including the use of car share services, parking structures, etc.
6. Please confirm if commercial uses are proposed within the block fronting Glendon Drive, and provide a breakdown/calculation of parking spaces provided for the different commercial uses (retail office, restaurant, etc.). Parking should be placed behind the buildings and no parking areas should front Glendon Drive. We'd like to encourage the incorporation of compatible, mixed uses within the Village Centre designation.
7. Please consider the installation of EV charging stations.
8. The proposed development should generally conform to the Urban Design Guidelines for Middlesex Centre and policy sections in the Secondary Plan for Komoka-Kilworth that references the Urban Design Guidelines.
9. An Archaeological Assessment will be required to confirm no impact on archaeological resources. We strongly encourage the proponent to consult with applicable Indigenous communities that may have an interest. We are happy to provide contact information for potentially interested communities.

Transportation

1. Road widening of 18 from the centreline of Glendon Drive will be required across the frontage of the property. Reserves will also be required by the County along the frontage of Glendon Drive.
2. Staff are supportive of the alignment of the primary collector right of way shown on the concepts, mirrored with the Crestview Drive right of way to the south.
3. A traffic impact study will be required to support the application to ensure there will be no adverse impacts to the transportation network as a result of development.
4. We note that there is a mid-block access to the mixed-use block located a short distance from the Glendon/Crestview intersection. We need to ensure that

northbound queuing of vehicles accessing the block will not impact the Glendon Drive/Crestview intersection. The proponents could consider a traffic circle at this location to maintain traffic flow or limit that access to a right in/right out.

5. Since this development will be serviced by a single access onto Glendon Drive, access for emergency services will need to be considered until such time as another access point is available through adjacent lands – this could be accomplished through the design of the intersection with Glendon Drive, or through other means.
6. An eastbound left turn lane will be required at Glendon Drive and Crestview/Primary Collector – depending on timing, this could be accomplished through the future widening of Glendon Drive.
7. As per the Transportation Master Plan, the secondary collector road is to have a right of way width of 24.0m
8. As per the TMP sidewalks are required along both sides of the primary and secondary collector roads, and on at least one side of the road on local roads.
9. There may be concerns with maintenance of the proposed stormwater management pond without frontage onto a public road.
10. Traffic calming is to be included in the subdivision design along the primary and secondary collector roads.

Trails/Parks/Landscaping

1. The park is located in the centre of the development which is suitable, however, the location on the block is awkward and may be perceived as private open space where it is surrounded by medium density development on three sides. Consider locating the park towards the north-eastern corner of the block or in a similar location where it has frontage on two+ roads.
2. The Municipality previously identified that a “neighbourhood” type park would be sought for a development of this size. This would include having amenities such as a play structure, courts, washrooms, etc.. Municipal staff would want to see a proposed landscape plan when available to ensure it meets the objectives of the Master Plan and community’s needs.
3. Note that further discussion will be required relating to the lands adjacent to the railway corridor, and long-term maintenance and ownership of any rail crash/noise walls. The buffer land adjacent to the railway would generally not be considered as part of the parkland dedication requirements under the Planning Act in accordance with our Official Plan policy 8.4.e). However, portions of trail areas may be accepted at a rate reflecting their relative recreation use. Note that the municipality is currently undertaking a parkland dedication strategy, intended to be presented in Q1/Q2 of 2024, which may provide more guidance.
4. With respect to the standard cross section provided for the rail setback, assuming 3:1 side slopes, the toe of the berm would extend at least 15 from the



property line with the railway thus reducing the usable space to a maximum of 15m which could be incorporated into the lots.

5. If the municipality were to own this buffer area and the berm, is it Sifton's intent that the municipality would be responsible for the long-term maintenance of the noise wall? We would also strongly suggest early consultation be initiated with CN Rail, to discuss potential scenarios for the land adjacent to the rail line. The municipality is happy to take part in those consultation discussions.

Natural Heritage

1. We note that there are no mapped natural heritage features on the subject property. However, there are natural heritage features mapped in proximity to the subject site north of the railway line. We also note that the Middlesex Natural Heritage System Study (2014) also maps the area abutting the property to the northwest. Considering the site context, a full Development Assessment Report (DAR) is not required, however we ask the proponent to identify and address potential impacts on these features within a report that is adequately scoped to the site context.

Public Works and Engineering Department Comments

1. The stormwater management facility will be required to be sized for the development lands located north east of this property. The Municipality wishes to see a regional SWM facility for these properties as identified in the Servicing Master Plan.
2. Please provide a functional servicing report that addresses the proposed water, sanitary, and stormwater servicing strategy.
3. With respect to water and wastewater servicing, capacity for this development has generally been taken into consideration as part of the master servicing plan. Allocation would not be provided until the time that a subdivision agreement is executed.
4. Note that we will require looping of the water service through the site to Tunks Lane. If this is not possible in the interim due to the lack of an easement then the design will need to be adjusted perhaps with a temporary water connection to Glendon through the mixed use block to ensure a redundant supply. Water modeling will be required to ensure adequate flows, pressure and turn over for water quality.
5. With respect to sanitary servicing, while not generally a concern, analysis should be undertaken to confirm development can be accommodated within the existing infrastructure (i.e. pump station to the south). The preference would be for sanitary services to run through the site to connect to the east as the Municipality would preferred to avoid sanitary sewers within the Glendon Drive right of way where possible.

6. The sanitary sewers and pumping station south of Glendon Drive were oversized to accommodate these lands. This was funded in part by two developments to the south and a portion of the cost was front ended by the Municipality. Through the development agreement, the municipality would be looking to recover the front-ended costs which are applicable to the subject lands.
7. With respect to stormwater servicing, note that design work is currently underway for the stormwater facility southeast of the Komoka Road/Glendon Drive intersection, which is intended to function as an outlet for the subject lands and other lands to the west identified within the Stormwater Master Plan. However, the municipality is open to considering alternative/interim solutions that may better align with the proposed timing of development. Please provide a stormwater management report that provides details of the servicing solution, accompanied by geotechnical and hydrogeological reports to support any proposed infiltration measures. Note that there have been concerns regarding high groundwater elsewhere in Komoka, so any proposed infiltration measures will need to be supported by geotechnical and hydrogeological reports. If the stormwater design is to include lot level controls in an effort to minimize the size of the SWM facility, the lot level controls should be limited to site plan blocks as long term maintenance and operation on individual residential lots can be difficult to ensure. Water balance should be maintained for the site (and possibly enhanced) but it is the position of the Municipality that the ultimate SWM solution for the site must include a piped outlet (an interim solution that relies solely on infiltration may be suitable for partial build out).
8. The Municipality requests that the SWM facility to be constructed on this property be designed and constructed as a Regional SWM which will service the subject lands and the upstream lands. The Municipality requests that Sifton liaise with the upstream landowner regarding the coordination of SWM and other servicing considerations. The Municipality is happy to be involved in these discussions and facilitate or host meetings when appropriate.
9. Preliminary design of the Komoka SWM facility has indicated that it may not be feasible to have the major OLFs from these lands (and upstream) be conveyed to the Komoka SWM facility. As a result, is likely that the stormwater discharge from these lands will be limited to the 5 year design storm event. Further information regarding outlet controls can be provided early in 2025.



We hope this provides sufficient information to help inform your upcoming submission, and we are happy to meet to discuss. We look forward to working with you on this development, and to getting shovels in the ground.

Sincerely,

Stephanie Bergman, RPP, MCIP
Manager of Planning and Development,
Municipality of Middlesex Centre

cc. Rob Cascaden, P. Eng., Director of Public Works and Engineering
Marion Cabral, Planner, Middlesex County