



December 22, 2021

Harold O’Krafka
 Director of Development Services
 Township of Wilmot
 60 Snyder’s Road West
 Baden, ON N3A 1A1

Dear Mr. O’Krafka,

**RE: CACHET DEVELOPMENTS (NH) INC. and
 CACHET DEVELOPMENTS (NH WEST) INC.
 MINISTER’S ZONING ORDER RESOLUTION REQUEST
 1265 AND 1299 WATERLOO STREET – TOWNSHIP OF WILMOT**

Cachet Developments (NH) Inc. and Cachet Developments (NH West) Inc. (“Cachet”) is the owner of 1265 and 1299 Waterloo Street in the Township of Wilmot (“Subject Lands”). The Subject Lands are approximately 43 hectares and are bisected by 3.6 hectares of land owned by the Township of Wilmot consisting of the Ivan Gingerich Drain and the future extension of the Laschinger Woods Trail.

The purpose of this letter is to request, at its earliest convenience, Council’s support for a Minister’s Zoning Order (“MZO”) for the Subject Lands.

REQUEST FOR MINISTERIAL ZONING ORDER (MZO)

The objective of the MZO is to realize the Township of Wilmot’s vision of concentrating growth on full services in and between Baden and New Hamburg with minimum infrastructure requirements and maximum use of existing infrastructure. The Subject lands will be transformed into a complete, master-planned community consisting of a broad range of residential, employment and community uses all anchored by a Transit Hub.

The proposal conforms to the applicable planning policy framework, including the PPS, Growth Plan, Regional Official Plan, and Wilmot Official Plan. It will also result in a number of significant public benefits, including:

- The development of a Transit Hub that will allow for convenient access and a destination for local and regional transit, which will increase accessibility for the residents and visitors of Wilmot.
- The diversification of employment opportunities and development of vacant and planned employment areas in Wilmot.
- The addition of new and easily accessible commercial amenities to Wilmot within convenient walking distance to residential uses and transit.
- A full range and mix of housing including seniors units, affordable housing, rental apartments, townhouses and single detached dwellings that will expand the range of

- housing options for existing and future residents of Wilmot.
- The construction of a new park, two new urban plazas, and public trails to support the existing and new residents of Wilmot.
- The development of an agri-hub to reinforce the areas rural culture and provide support for local farmers.
- The provision of additional ridership to support local and regional transit lines.
- The ability to accommodate the forecasted growth in a transit-oriented and sustainable way.

SUPPORTING STUDIES AND REPORTS

The master plan has been evaluated, assessed and supported by a group of reputable consultants including:

- Bousfields Inc. – Land Use Planning and Urban Design
- urbanMetrics Inc. – Land Economist
- WalterFedy – Civil Engineering
- Paradigm Transportation Solutions Limited – Transportation Planning/Engineering

The consulting team's supporting reports have been enclosed with this letter.

KEY ELEMENTS OF THE MASTER PLAN

Summarized below are some of the key elements to Cachet's vision in transforming the Subject Lands into a complete community:

Transit Hub

The Transit Hub will serve to support the Township of Wilmot's interest in providing its residents access to higher order transit.

Mixed-use Employment Areas

A mix of employment and commercial amenities including a community health centre are planned for the lands south of the Ivan Gingerich drain.

Housing

A range of housing offerings are provided for the lands north of the Ivan Gingerich Drain including 150 seniors housing units, 200 rental and affordable housing units and over 900 attainable housing units consisting of medium density and ground-based units. This will address a need for new and alternative forms of housing to accommodate Wilmot residents of all ages and incomes.

Active Transportation & Public Service Facilities

New trails are proposed to connect to the future extension of the Laschinger Woods Trail, providing a comprehensive network. The master plan also includes the development of a public park and two new urban plazas at key mixed-use locations.

Agri-Hub

A new agri-hub is a community space that will reinforce the local roots and provide opportunities for community gardens and farmers markets to provide healthy, local, affordable food options.

NEXT STEPS

The MZO for the Subject Lands will assist the Township of Wilmot, specifically the communities of New Hamburg and Baden, grow as complete communities, providing the necessities of life (residential, employment, retail/commercial) within proximity to each other and transit while promoting the efficient use of land and infrastructure at transit-supportive densities.

Following receipt of the MZO, Cachet and its consulting team will work with the Township of Wilmot, the Region of Waterloo, and other stakeholders to implement the MZO through other Planning Act applications, including but not limited to draft plan of subdivision and site plan applications.

Cachet and its consulting team are available to answer any questions you may have with respect to this application and process.

We greatly appreciate your time and consideration of this important development for the Township of Wilmot.

Yours very truly,

Cachet Developments (NH) Inc.

Per:



Ramsey Shaheen, Director

RS*md

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ONTARIO REGULATION

made under the
PLANNING ACT

ZONING ORDER – TOWNSHIP OF WILMOT

Interpretation

1. In this Order,

“building – mixed use” means a building designed, intended or used for residential and non-residential purposes.

“farm-related community area” means land used for the growing and harvesting of plants, vegetables or fruits and provided the crops are for the sole use, donation or consumption by the individual or individuals growing or working the community garden. It shall also include a temporary public market operated by a community organization, or a non-profit corporation, at which the majority of persons who operate the stalls sell local agricultural products, value added local agricultural products, or VQA wines provided the products are produced by persons who operate the stalls. It shall also include educational and active opportunities to experience the agricultural way of life in Rural Wilmot.

“high occupancy vehicle facility” means land used to support and service a public transit facility, including for dispatching, storing, servicing, hiring, loading or unloading trains, buses, taxis, rideshare vehicles, limousine vehicles or similar fleet vehicles, but not tow trucks, tractors, trailers or tractor-trailers.

“private lane” means a thoroughfare which affords a means of access to abutting lots and buildings intended for general vehicular traffic circulation.

“residential building – apartment” shall also include a stacked townhouse.

“stacked townhouse” means a building containing four or more dwelling units in which each dwelling unit is divided both horizontally and vertically from another dwelling unit by a common wall and has an individual entrance at the ground level.

“urban plaza” means an unobstructed, publicly accessible and predominantly hardscaped open space area.

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“Zoning By-law” means Zoning By-law No. 83-38 of the Township of Wilmot, as amended.

Application

2. This Order applies to lands in the Township of Wilmot, in the Regional Municipality of Waterloo, in the Province of Ontario, being the on a map numbered --- and filed at the Toronto office of the Ministry of Municipal Affairs and Housing located at 777 Bay Street.

Regulations for All Zones

3. In addition to Section 6.19 of the Zoning By-law, parks, urban plazas, farm related community areas, and public infrastructure uses shall be permitted uses in any zone on the lands described in Section 2.
4. For the purposes of this Zoning Order a private lane shall be considered a public street.
5. The minimum density for the lands referred to in Section 2 is 65 persons and jobs per hectare.
6. A minimum 2 hectare public park shall be required for the lands referred to in Section 2.
7. A Senior Citizen Residence with a minimum of 150 seniors housing units shall be provided within the Mixed-Use Residential and/or Mixed-Use Commercial Zone, of which 15 seniors housing units will be affordable seniors housing units. The affordable seniors housing units will have rent equal to or less than 80% of the median market rent of a unit in the regional market area.
8. A minimum of 200 rental residential apartment units will be provided within the Mixed-Use Residential and/or Mixed-Use Commercial Zone, of which 50 residential apartment units will be affordable housing units. The affordable housing units will have rent equal to or less than 80 percent of the median market rent of a unit in the regional market area.

Neighbourhood Residential Zone

9. (1) This section applies to the lands located in the area shown as the Residential Neighbourhood Zone on the map described in Section 2.

(2) Every use of land and every erection, location or use of any building or structure is prohibited in the Residential Neighbourhood Zone, except for:

- (a) Residential Building – Single Detached

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- (b) Residential Building – Semi-Detached
- (c) Residential Building – Townhouse
- (d) Residential Building – Back-to-Back Townhouse
- (e) Residential Building – Cluster Townhouse
- (f) Additional dwelling units in conformity with Section 6.26 of the Zoning By-law
- (g) Uses accessory to the foregoing permitted uses
- (h) Home occupation in conformity with subsection 6.20 of the Zoning By-law

(3) The following requirements and restrictions shall apply to the buildings or structures permitted under subsection (2):

Regulations	Single Detached	Semi-Detached	Townhouse	Back-to-Back Townhouse	Cluster Townhouse
Min. Lot Area	270 sq. m.	420 sq. m.	140 sq. m.	90 sq. m.	N/A
Min. Lot Frontage					30 m
• Interior	9 m	14 m	5.5 m	6 m	
• Corner	12 m	16 m	8.5 m	9m	
Max. Lot Coverage	50%	50%	55%	65%	55%
Max. Building Height	11 m	11 m	11 m	11.5 m	10.5 m
Min. Front Yard Setback	4.5 m	4.5 m	4.5 m	4.5 m	4.5 m
Min. Rear Yard Setback	7.0 m (On a corner lot, a side yard requirement may be substituted for a rear yard requirement for all permitted uses)	7m	6.5	N/A	6.5
Min. Exterior Side Yard Setback	1.5 m	1.5m	1.5 m	1.5 m	1.5 m
Min. Interior Side Yard Setback	1.2 m (a)	1.2 m	1.2 m	1.2 m	1.2 m

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Regulations	Single Detached	Semi-Detached	Townhouse	Back-to-Back Townhouse	Cluster Townhouse
Accessory Buildings	In conformity with the regulations contained in subsection 6.3 of the Zoning By-law.				
Off-Street Parking	In conformity with the regulations contained in subsection 6.10 and 6.12 of the Zoning By-law.				

(3)(a): The required interior side yard may be reduced on one side of a single-detached dwelling to 0.6 m if there are no doors, windows or other openings within the side yard.

Mixed-Use Residential Zone

10. (1) This section applies to the lands located in the area shown as the Mixed-Use Residential Zone on the map described in section 2.

(2) Every use of land and every erection, location or use of any building or structure is prohibited in the Mixed-Use Residential Zone, except for:

- (a) Residential Building - Apartment
- (b) Senior Citizen Residence
- (c) School
- (d) Day Care Facility
- (e) Nursing or convalescence home
- (f) Uses accessory to the foregoing permitted uses
- (g) Home occupation in conformity with subsection 6.20 of the Zoning By-law
- (h) All uses permitted in subsection 12.1 of the Zoning By-law.

(3) The following requirements and restrictions shall apply to the buildings or structures permitted under subsection (2):

Regulations	For all Permitted Uses
Min. Lot Area	740 square metres
Min. Lot Frontage	30 metres
Min. Front Yard Setback	4.5 metres
Min. Exterior Side Yard Setback	4.5 metres
Min. Side Yard Setback	3 metres or one half the building height beyond the second storey, whichever is greater.
Min. Rear Yard Setback	7.5 metres
Max. Building Height	6-storeys and 23 m.
Accessory Buildings	In conformity with the regulations contained in subsection 6.3 of the Zoning By-law.

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Regulations	For all Permitted Uses
Off-Street Parking for Residential Uses	1.25 spaces per dwelling unit
Off-Street Parking for all other uses	In conformity with the regulations contained in subsection 6.10 and 6.12 of the Zoning By-law. Visitor and non-residential parking spaces may be shared and provided on a non-exclusive basis.

Mixed-Use Commercial Zone

11. (1) This section applies to the lands located in the area shown as the Mixed-Use Commercial Zone on the map described in section 2.

(2) Every use of land and every erection, location or use of any building or structure is prohibited in the Mixed-Use Commercial Zone, except for:

- (a) Residential Building - Apartment
- (b) Senior Citizen Residence
- (c) School
- (d) Day Care Facility
- (e) Nursing or convalescence home
- (f) Uses accessory to the foregoing permitted uses
- (g) Home occupation in conformity with subsection 6.20 of the Zoning By-law
- (h) All uses permitted in subsection 12.1 of the Zoning By-law.

(3) The following requirements and restrictions shall apply to the buildings or structures permitted under subsection (2):

Regulations	For all Permitted Uses
Min. Lot Area	740 square metres
Min. Lot Frontage	30 metres
Min. Front Yard Setback	4.5 metres
Min. Exterior Side Yard Setback	4.5 metres
Min. Side Yard Setback	3 metres or one half the building height beyond the second storey, whichever is greater.
Min. Rear Yard Setback	7.5 metres
Max. Building Height	6-storeys and 23 m.
Accessory Buildings	In conformity with the regulations contained in subsection 6.3 of the Zoning By-law.

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Regulations	For all Permitted Uses
Off-Street Parking for Residential Uses	1.25 spaces per dwelling unit
Off-Street Parking for all other uses	In conformity with the regulations contained in subsection 6.10 and 6.12 of the Zoning By-law. Visitor and non-residential parking spaces may be shared and provided on a non-exclusive basis.

(4) A minimum of 50 percent of the ground floor gross floor area of all buildings in the Mixed-Use Commercial Zone shall be dedicated to non-residential uses identified in 11(2)(h).

Mixed-Use Employment Zone

12. (1) This section applies to the lands located in the area shown as the Mixed-Use Employment Zone on the map described in section 2.

(2) Every use of land and every erection, location or use of any building or structure is prohibited in the Mixed-Use Employment Zone, except for:

- (a) All uses permitted in subsection 16.2 of the Zoning By-law
- (b) Offices, including medical offices and medical clinics
- (c) All uses permitted in subsection 12.1 of the Zoning By-law
- (d) Uses accessory to the foregoing permitted uses
- (e) Any use permitted in the Mixed-Use Commercial Zone, subject to regulation 12(4) below.

(3) The following requirements and restrictions shall apply to the buildings or structures permitted under subsection (2):

- (a) The uses in 12(2)(a) are subject to the regulations in subsection 16.3 of the Zoning By-law.
- (b) Offices are subject to the regulations in the Mixed-Use Commercial Zone.
- (c) The uses permitted in subsection 12.1 of the Zoning By-law are subject to the regulations in the Mixed-Use Commercial Zone.
- (d) Any Mixed-Use Commercial use is subject to the regulations in the Mixed-Use Commercial Zone and regulation 12(4) provided herein.

(4) The establishment of any sensitive land use, including any residential and/or institutional uses, shall be subject to the compatibility regulations provided in the Provincial D-6 Guidelines to the satisfaction of the Township of Wilmot.

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Transit Hub Zone

13. (1) This section applies to the lands located in the area shown as the Transit Hub on the map described in section 2.

(2) Every use of land and every erection, location or use of any building or structure is prohibited in the Transit Hub Zone, except for a public transit depot together with accessory uses, buildings and structures that may include:

- (a) The uses permitted in the Mixed-Use Commercial Zone;
- (b) A parking structure;
- (c) A commercial parking lot;
- (d) A municipal parking lot;
- (e) Public uses;
- (f) High occupancy vehicle facility; and,
- (g) Motor vehicle rental establishments.

(3) The uses permitted in subsection (2)(a), (b), (c), (d), (e) and (g) are only permitted as accessory to the principal High occupancy vehicle facility.

(4) The following requirements and restrictions shall apply to the buildings or structures permitted under subsection (2):

Regulations	For all Permitted Uses
Min. Lot Area	3,000 square metres
Min. Lot Frontage	30 metres
Min. Front Yard Setback	4.5 metres
Min. Exterior Side Yard Setback	4.5 metres
Min. Side Yard Setback	3 metres or one half the building height beyond the second storey, whichever is greater.
Min. Rear Yard Setback	7.5 metres
Max. Building Height	6-storeys and 23 m.
Accessory Buildings	In conformity with the regulations contained in subsection 6.3 of the Zoning By-law.
Off-Street Parking for Residential Uses	1.25 spaces per dwelling unit
Off-Street Parking for all other uses	In conformity with the regulations contained in subsection 6.10 and 6.12 of the Zoning By-law. Visitor and non-residential parking spaces may be shared and provided on a non-exclusive basis.

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Terms of Use

14. (1) Every use of land and every erection, location or use of any building or structure shall be in accordance with this Order.

(2) Nothing in this order prevents the use of any land, building or structure for any use prohibited by this Order if the land, building or structure is lawfully so used on the day this Order comes into force.

(3) Nothing in this Order prevents the reconstruction of any building or structure that is damaged or destroyed by causes beyond the control of the owner if the dimensions of the original building or structure are not increased or its original use altered.

(4) Nothing in this order prevents the strengthening or restoration to a safe condition of any building or structure.

Deemed by-law

15. (1) This Order is deemed for all purposes, except the purposes of the section of 24 of the Act, to be and to always have been a by-law passed by the Council of the Township of Wilmot.

Commencement

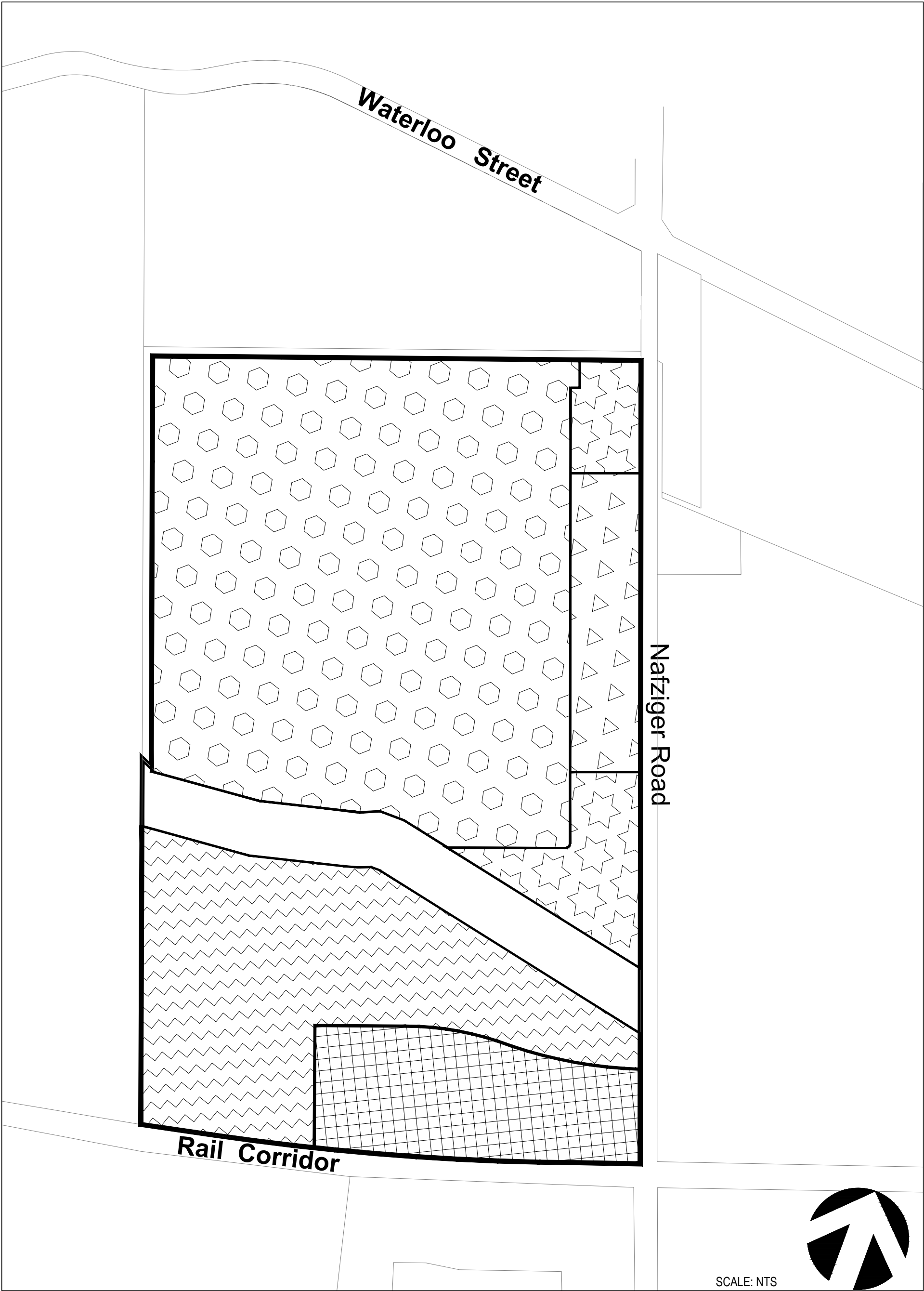
16. This Regulation comes into force on the day it is filed.

Made by:






.....
Signature

Minister of Municipal Affairs and Housing

Date made.....



LEGEND

- | | |
|---|---|
|  Transit Hub Zone |  Mixed-Use Commercial Zone |
|  Neighbourhood Residential Zone |  Mixed-Use Employment Zone |
|  Mixed-Use Residential Zone | |

1265 & 1299 Waterloo St
Wilmot Township

SCHEDULE A

Attachment 3: Planning & Urban Design Rationale Report (Bousfields)



Planning & Urban Design Rationale

**1265-1299
Waterloo Street**
Township of Wilmot

Prepared For
Cachet Development Partners Inc.

December 2021



Job Number
21340

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The subject site is made up of four separate parcels, with the Ivan Gingerich Drain separating the 2 north parcels from the 2 south parcels. The Township of Wilmot owns this 3.6 ha of land separating the north and south parcels and is in the process of planning the construction of a new trail which will connect New Hamburg, specifically the Laschinger Woods Trail and the Ivan Gingerich Drain, to the Wilmot Recreation Complex and ultimately to the community of Baden.



1

Introduction

This Planning Rationale report has been prepared in support of an urban boundary expansion and official plan amendment by Cachet Development Partners Inc., in order to permit the redevelopment of a 43.21 hectare site located on west side of Nafziger Road, south of Waterloo Street, municipally known as 1265 and 1299 Waterloo Street (the "subject site") (see **Figure 1**).

This Planning Rationale report has been prepared in support of an urban boundary expansion and official plan amendment by Cachet Development Partners Inc., in order to permit the redevelopment of a 43.21 hectare site located on west side of Nafziger Road, south of Waterloo Street, municipally known as 1265 and 1299 Waterloo Street (the "subject site") (see Figure 1).

The proposal is for a master planned mixed-use community that includes a range of housing options at transit-supportive densities, anchored by a transit hub that connects to local and regional transit lines, includes commercial amenities within walking distance to housing, provides employment opportunities near the transit hub, and applies an agricultural theme that relates to culture of the community.

This report concludes that the inclusion of the subject site into the urban boundary is modest, would fill in a gap, make the surrounding communities more complete, and provide a logical urban boundary for the town. It is supportive of and conforms to policy directions articulated in the Provincial Policy Statement, the Growth Plan for the Greater Golden Horseshoe, Waterloo Region Official Plan, and the Wilmot Official Plan, all of which promote the development of complete communities to accommodate the projected growth to 2051.

The proposal aligns with the Wilmot Concentrated Growth Model and the Countryside Line, which concentrates the Township's growth on full services in and between Baden and New Hamburg that optimizes existing infrastructure and requires minimal new infrastructure requirements. In this regard, the subject site is located within the Countryside Line and has been earmarked as a priority expansion area to accommodate future growth and requested to be added to the urban area in 2017 as part of the Region's last Official Plan review.

Overall, the proposed expansion and master plan will result in a number of significant public benefits, including:

- The development of a Transit Hub that will allow for convenient access and a destination for local and regional transit, which will increase accessibility for the residents and visitors of Wilmot.
- The diversification of employment opportunities and development of vacant and planned employment areas in Wilmot, which are supported by
- The addition of new and easily accessible commercial amenities to Wilmot within convenient walking distance to residential uses and transit.
- A full range and mix of housing including seniors units, affordable housing, rental apartments, townhouses and single detached dwellings that will expand the range of housing options for existing and future residents of Wilmot.
- The construction of a new park, two new urban plazas, and public trails to support the existing and new residents of Wilmot.
- The development of an agri-hub to reinforce the areas rural culture and provide support for local farmers.
- The provision of additional ridership to support local and regional transit lines.
- The ability to accommodate the forecasted growth in a transit-oriented and sustainable way.



Figure 1 - Location Map

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Site & Surroundings

2.1 Subject Site

The subject site is made up of four separate parcels, with the Ivan Gingerich Drain separating the 2 north parcels from the 2 south parcels (see **Figure 1**). The Township of Wilmot owns this 3.6 ha of land separating the north and south parcels and is in the process of planning the construction of a new trail which will connect New Hamburg, specifically the Laschinger Woods Trail and the IvanGingerich Drain, to the Wilmot Recreation Complex and ultimately to the community of Baden.

The site was previously two (2) long and narrow parcels, extending the entire length between Waterloo Street and the CN Railway. In May 2021 (Plan 58R-21129), the two parcels were severed to create separate parts for the two (2) existing residential dwellings fronting onto Waterloo Street and for the 3.6 ha area that has since been dedicated to the Township for the purposes of providing a multi-use trail. This severance effectively created 2 separate sections; one north of the drain and future trail, and one south. Both the north and south sections have frontage on Nafziger Road. Below is a summary of the statistics for the subject site:

Table 1 - Subject Site Statistics

Parcel	Lot Area	Lot Frontage (Nafziger Road)
North	28.4 ha	549.7 metres
South	14.6 ha	142.7 metres
Total	43 ha	692.4 metres

Area Context

Directly **north** of the subject site are two (2) residential dwellings and agricultural-related outbuildings (no livestock). On the north side of Waterloo Street is a farm operation containing livestock and agricultural cropland with the Nith River, agricultural cropland, and woodlands located further north. Located north east of the site, on the north side of Waterloo Street/Synder's

Road West and on the east side of Nafziger Road is the Steinmann Mennonite Church, a number of single detached residential dwellings as well as the Waterloo-Oxford District Secondary School (Grades 9-12) and Sir Adam Beck Public School (K-Grade 8). The Secondary School initially opened in 1955 with Sir Adam Beck Public School opening more recently in 2011.

East and north of the subject site at the southeast corner of Synder's Road West and Nafziger is a small cemetery. Directly east of the subject site are 2 single detached residential dwellings and agricultural cropland. Further west is more agricultural cropland, a livestock operation, south of the schools with the community of Baden and associated residential neighbourhoods located

Abutting the site to the **south** is the CN rail corridor. This rail corridor is the route of the recently implemented GO Transit pilot project which provides train service between London and Toronto with stops in St. Marys and Stratford located between London and Kitchener. There is currently 1 eastbound train from London in the morning and 1 westbound train into London in the evening. South of the rail corridor is Nachurs Alpine Solutions, a liquid fertilizer manufacturing facility which has a short spur line leading from the main corridor to the facility for loading/unloading purposes. Located further south are wooded areas, a number of trails, as well as the Wilmot Recreation Complex located on the east side of Nafziger Road.

West of the northern portion of the subject site is Pfenning's Organic Vegetables and associated cropland. This property currently contains a small on-site retail component for the farming operation, as well as outbuildings used for storage and loading/unloading of the produce, in addition to agricultural cropland. The area abutting the site to the west for the southern portion of the site is currently planned and designated within the Township of Wilmot's Official Plan for residential uses.

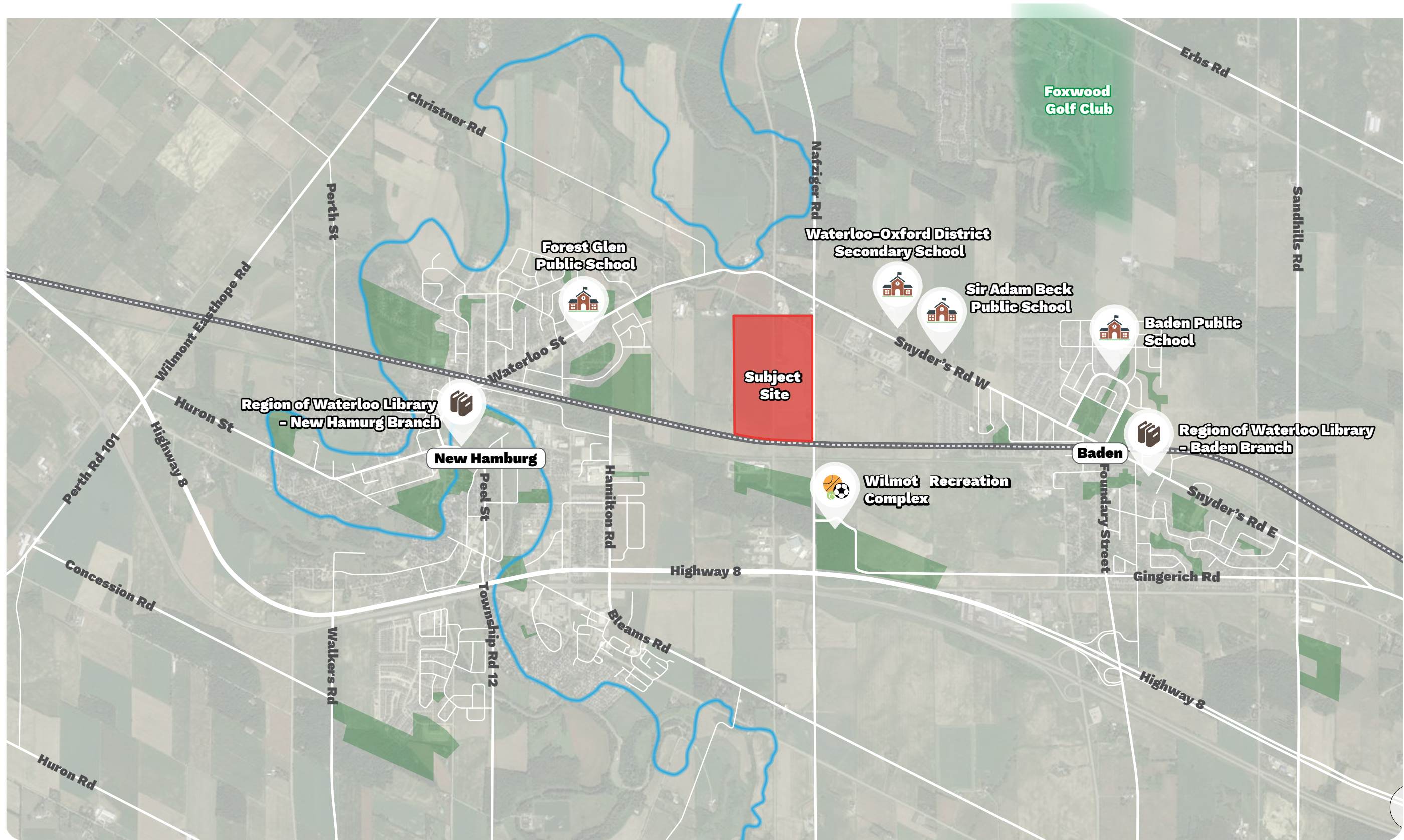


Figure 2 - Surrounding Land Uses



Legend ■ Subject Site ■ Urban Growth Centre ■ Urban Residential ■ Urban Core Area ■ General Industrial ■ General Industrial

Figure 3 - Surrounding Land Uses

The Communities of New Hamburg and Baden

The Township of Wilmot ("Wilmot") has a current (based on the 2016 census) population of 20,545. The majority of its population is accommodated in its two urban areas, New Hamburg and Baden, located in close proximity to one another (approximately 1.12 kilometres) and both bisected by the existing CN rail corridor.

New Hamburg includes a mix of residential, commercial, industrial, and community service facility uses. The residential uses are largely made up of single detached residential dwellings occupying the most significant amount of the urban area. The commercial uses are mostly concentrated along Peel Street in a low-rise "main street" form. There is a significant number of industrial uses within the town, almost entirely made up of low-rise manufacturing, food processing, and warehouse uses. Community service facility uses, such as schools and parks are interspersed throughout the urban area, including a comprehensive trail network that weaves in and out of the natural heritage system that surrounds New Hamburg. In addition, there is a recreation centre (Wilmot Recreation Complex) at the extreme eastern edge of the urban area and a secondary school (Waterloo Oxford District Secondary School) outside of the urban area, between New Hamburg and Baden.

Baden is smaller in land area and population and also includes residential, commercial, industrial and community service facility uses. Similar to New Hamburg, it is largely made up of low-rise residential areas, made up mostly of single detached residential dwellings. Commercial uses are centred on Snyder's Road West. Industrial lands are occupied by transport, manufacturing and motor vehicle related uses in low rise buildings. Community service facility uses are interspersed throughout Baden.

From an urban structure perspective, Wilmot's two urban areas are connected by the CN rail corridor and major arterial roads, Highway 7/8 and Waterloo Street/Snyder's Road West. Furthermore, the Region of Waterloo Official Plan establishes a "Countryside Line". This Countryside line, as amended through Regional Official Plan Amendment ("ROPA") No. 1 in 2018 which illustrates Wilmot's future urban area expansions, merges the New Hamburg and Baden urban areas into one larger urban area. This will be further discussed in Section 4.0 of this report.



3

Wilmot Village Proposal

The proposal is to add the subject site to Wilmot's urban boundary as described and detailed in the Master Plan (attached as **Appendix 1**). The urbanization and development of the subject site, as proposed on the Master Plan shown below, will provide the opportunity for Wilmot to grow into a more complete community, as defined in the Growth Plan for the Greater Golden Horseshoe (the "**Growth Plan**"), which defines "Complete Communities" as:

"Places such as mixed-use neighbourhoods or other areas within cities, towns, and settlement areas that offer and support opportunities for people of all ages and abilities to conveniently access most of the necessities for daily living, including an appropriate mix of jobs, local stores, and services, a full range of housing, transportation options and public service facilities. Complete communities are age-friendly and may take different shapes and forms appropriate to their contexts."

The proposal is for a master planned mixed-use community that includes a range of housing options at transit-supportive densities, anchored by a transit hub that connects to local and regional transit lines, includes commercial amenities within walking distance to housing, provides employment opportunities near the transit hub, and applies an agricultural theme that relates to culture of the community.

Although the urban areas of Wilmot have a mix of uses, it is our opinion that they do not meet the definition of a complete community. In this regard, the range of employment, commercial amenities, housing, transportation and public service facility options in New Hamburg and Baden are limited. In our opinion, the proposed urban expansion and master plan will make Wilmot more complete and meet the definition in the Growth Plan, since:

- The Transit Hub will allow for the diversification of employment opportunities and development of vacant and planned employment areas in Wilmot.
- The Master plan concept includes mixed use areas that will add new and easily accessible commercial amenities to Wilmot within convenient walking distance to residential uses and transit.
- The Master plan includes a mix of housing typologies, including new apartments and affordable housing that will expand the housing options for existing and future residents of Wilmot. In this regard, the master plan contemplates a minimum of 1,200 residential units and a range of up to 1,500 units. These units will include a minimum of 100 seniors housing units, 150 rental apartment units, 50 affordable rental housing units, while the remaining residential units will be singles, townhouses and residential apartment units.
- The proposed Transit Hub will allow for convenient access to regional transit, but also provide a destination for local and regional bus transit, which will increase accessibility for the residents and visitors of Wilmot.
- A Mixed-use employment area will accommodate a mix of employment and commercial amenities and, subject to compliance with the Provincial D-6 land use compatibility guidelines, additional residential uses.
- The proposed Master plan includes an emphasis on active transportation and the proposes a comprehensive trail network and park as significant public service facilities that support the community and will make Wilmot complete. The plan also considers a multi-use trail within the Regional right-of-way along Nafziger Road.



Legend

Subject Site	Single Family
Mixed-Use	Office Building
Condominium	Medical Office Building
Affordable Housing	Park
Seniors	Agricultural hub
Traditional T/H	Urban Plaza
Rear Lane T/H	Multi Use Trail

Figure 4 - Masterplan

3.1 Summary Statistics

Table 2 - Land Use Breakdown

Use	Area (ha.)
<i>Transit Hub</i>	3.68
<i>Public Park</i>	2.00
<i>Urban Plaza</i>	0.63
<i>Agri-Hub</i>	0.97
<i>Neighbourhood Residential Area</i>	11.73
<i>Mixed-Use Residential Area</i>	4.24
<i>Mixed-Use Commercial Area</i>	3.16
<i>Mixed-Use Employment Area</i>	3.41
<i>Stormwater Management Pond</i>	3.36
<i>Roads</i>	10.04
Total	43.21

Table 3 - Residential Unit Breakdown

Use	Minimum Number of Units	Upper Range of Units
Seniors	100	150
Affordable Housings Rental Apartments	50	50
Rental Apartments	150	150
Condominium Apartments	150	200
Mixed-Use Condominium Apartments	350	400
On-Street Townhouses	250	300
Rear-Lane Townhouses	50	100
Single Detached Dwellings	100	150
Total	1,200	1,500

Non-Residential Breakdown:

Ground floor retail, personal service, and restaurant commercial uses are proposed within the *Mixed-Use Commercial* area along Nafziger Road in the base of mixed-use buildings with a minimum of 2,600 square metres (28,000 square feet) of gross floor area. These commercial amenities are centred on a public urban plaza that will provide a gathering place for the community.

The *Mixed-Use Employment* area is strategically located abutting the *Transit Hub* and will accommodate a mix of employment and commercial amenities in a location that is easily

accessible by pedestrians, active transportation, transit, and vehicles. Depending on the ability to comply with the Provincial D-6 land use compatibility guidelines, additional residential uses can be accommodated within upper storeys of mixed use buildings.

Overall, the proposal results in a minimum residential density of 27.7 units per hectare (1,200/43.21) and a minimum of 47 persons per hectare, which is broken down as follows:

The proposed development would generate a density of a minimum of 27.77 units per hectare (1200/43.21) and 65 persons and jobs per hectare.

Use	Minimum Number of Units	Persons Per Unit	Population
Seniors	100	1.276	127.6
Affordable Housings Rental Apartments	50	1.276	63
Rental Apartments	150	1.276	191.4
Condominium Apartments	150	1.276	191.4
Mixed-Use Condominium Apartments	350	1.276	446.6
On-Street Townhouses	250	2.369	592.25
Rear-Lane Townhouses	50	2.369	118.45
Single Detached Dwellings	100	3.002	300.2
Total	1,200		2,030.9

In addition, the non-residential commercial area creates approximately 50 jobs (2,600/52 square metres) and the remaining *Mixed-Use Employment* area and residential based employment is planned to accommodate the remaining approximately 700 persons and jobs. As is demonstrated by the proposed master plan, the proposal is able to achieve the minimum density of 65 persons and jobs per hectare.

3.2 Design Principles and Objectives

Below are the overall design principles and objectives of the Master plan, which have been guided by the applicable Provincial, Regional, and local policy and regulatory framework as well best practices in the urban design and planning context:

Diverse: Provide a diverse mix of housing types and amenities suitable for all stages of life.

Objectives

- Provide a mix of housing typologies, unit sizes and tenures
- Provide a variety of community services and open space programs that support a diverse mix of users
- Employ universal design strategies to ensure the site is accessible to all
- Provide Affordable Housing

Multi-Modal: Improve existing connections and promote alternative transportation modes.

Objectives

- Provide connections to the existing cycling and pedestrian infrastructure
- Provide land for potential Transit Hub
- Provide transit-supportive built form along Nafziger Road and in proximity to Future Transit Hub
- Develop at a transit-supportive density
- Prioritize enhancing the pedestrian and cycling experience by creating pedestrian-oriented streetscapes and limiting vehicular interference areas along Nafziger Road and the central north south street.

Connected: Provide a network of streets, pedestrian connections, and green linkages.

Objectives

- Provide walkable street blocks with a hierarchy of connections to promote active transportation throughout the Subject Lands
- Provide a variety of open spaces in terms of size and function throughout the Site with direct pedestrian connections
- Where possible, Locate new open spaces such that they build off existing open space to create and expand the current open space system
- Provide a central promenade that connects all three significant proposed open spaces together

Sustainable: Incorporate sustainable design strategies with an emphasis on respecting and enhancing the surrounding environmental features.

Objectives

- Encourage alternative transportation modes through built form and streetscape design strategies
- Maintain a naturalized edge along the existing watercourse
- Employ a comprehensive stormwater management strategy
- Incorporate Low Impact Development Strategies (LIDS) such as green roofs, permeable pavements, infiltration galleries and bio-swales as landscape and streetscape features

Sense of Place: Foster a sense of place that establishes a community identity and encourages social interaction.

Objectives

- Reinforce the agricultural sense of place
- Design engaging public spaces and enhance the streetscape to encourage community gatherings
- Emphasize gateways and frame views through the location and design of buildings and open space features

Compatible: Provide development in a form and scale that responds well to the existing and planned built form and land use context.

Objectives

- Locate and mass buildings such that they respect the existing and planned built form character in terms of typology and height
- Design development to be compatible with existing industrial and agricultural uses in the area including meeting the Provincial D-6 guidelines and Minimum Distance Separation Guidelines

3.3 The Culture of Agriculture

The Wilmot Official Plan establishes a set of goals that are the basis for the plan. The very first goal is to preserve and protect a vital rural/agricultural area in Wilmot not only for the production of food and other products, but also as an important component of the Township's economic base, a source of employment and as a basis for the Township's rural community. The preservation and protection of agriculture in Wilmot is of paramount importance. Based on our review and understanding, the master concept plan was established on this principle and includes boundaries that comply with the minimum distance separation requirements, accommodates agriculture-related uses, and utilizes a wide 10-metre wide trail as a transition to existing rural lands to the west and north.

The north boundary of the subject site meets the minimum distance separation requirements for livestock facilities to the north. In this regard, the boundary was established to protect those existing agricultural uses. The master plan concept includes a 0.97 hectare (2.39 acre) "Agri Hub" block that is intended to be a flex space that can accommodate agriculture-related uses such as a farmer's market, community farm, demonstration farms, kid's activities, seasonal agriculture events and educational opportunities, etc. The block is strategically located next to the public park and has great views to the surrounding rural areas to the north and west and great exposure to Waterloo Street. The master plan concept provides an appropriate transition to the rural areas to the north and west with a 10-metre-wide trail system and low rise residential, park and the Agri hub block.

3.4 Regional Transit

On October 18, 2021, GO Transit began its pilot to expand GO train service to London, St. Marys, and Stratford. This is an important commuter rail link that connects the Waterloo Region to municipalities and destinations in the east and west, through Wilmot. As described in the Regional Transportation Plan, GO Train transit is fast, frequent and reliable. In our opinion, this is a game-changer for Wilmot, since it will provide transit access for the existing residents, employers and visitors. The proposed urbanization and master plan concept, includes the development of a new Transit Hub in Wilmot, a logical location midway between Kitchener and Stratford. It is intended that the proposed Transit Hub could accommodate a new GO Train Station and/or GO Bus Station and kiss and ride. The existing population of New Hamburg and Baden provide a ridership base, while the proposed expansion, as illustrated in master plan concept, at transit supportive densities will provide additional ridership to support the GO Train line and location and regional transit within Wilmot.

A new Transit Hub will enable the urban areas of Wilmot to further urbanize and accommodate a larger portion of the Region's planned growth of an additional 323,000 people and 177,700 jobs to 2051. It will also connect the existing industrial operations and vacant industrial lands in New Hamburg and Baden to larger catchment areas and employee pools, which will enable the intensification of existing industrial uses and allow for the diversification of employment opportunities including the ability to accommodate office, research and other employment uses. The master plan concept provides a vision for a compact and complete community that is anchored by a new Transit Hub, which will provide opportunity for Regional Rail or Bus modes to connect with other urban centres to the east and west with fast, convenient and reliable public transit.

In this instance, the role of Regional Transit is critical for Wilmot to achieve its goal for its settlement areas as a compact, vibrant and complete community.

3.5 Housing Options

The proposed development includes a range and mix of housing options including singles, townhouses, apartments and seniors housing at transit supportive densities that exceed the Growth Plan minimums. In our opinion, the proposed master plan community will diversify and add new housing supply to Wilmot, a municipality that is set to grow by 15,300 people and 6,370 households between 2021 and 2051, according to the Community Area Land Needs Analysis (the "CALNA") prepared by Urban Metrics Inc. and dated December 9, 2021. The CALNA also concludes that there is a significant shortfall of 2,801 units in the low, medium and high-density typologies required to accommodate growth to 2051 and there is a lack of apartments and purpose-built seniors housing to house Wilmot's large and growing seniors population. The CALNA also states that the Region is losing residents to neighbouring communities in the south and west, as these individuals search for more affordable ground-related housing.

The proposed urban boundary expansion and master plan proposal would provide much needed seniors and affordable housing units to address these trends and add new rental apartment and new market-based housing supply that would provide a diverse range of housing options for the existing and future residents of Wilmot in a location that is well served by public transit and near existing and future employment uses and commercial amenities. More specifically, the Master plan proposes a 100-unit mid-rise seniors housing building, and two 100-unit rental apartment buildings, one of which will accommodate 50 affordable housing rental units and 15 affordable seniors housing units. These affordable housing units will have rents that are equal to or less than 80% of the average market rent in the regional market area. The proposed single detached and townhouses units will add to Wilmot's housing supply of market demand housing and maintain affordability. The provision of a variety of housing types and tenures achieves numerous policy objectives articulated in Provincial, Regional, and local planning policies and will address Wilmot's housing needs as described in the CALNA. The proposed range of housing, including the seniors, rental and affordable housing, and transit supportive densities (1,200 units and 65 persons and jobs per hectare) will be secured through site specific zoning regulations that will require these minimums.

4

Supporting
Studies

4.1 Community Area Land Needs Analysis

A CALNA was prepared by Urban Metrics Inc. dated December 20, 2021. The purpose of the CALNA is to identify the potential need for a Settlement Area boundary expansion in Wilmot to accommodate population and employment growth to 2051. This CALNA is based on forecast market demand for housing, which is consistent with the approach identified in the *Land Needs Assessment Methodology for the Greater Golden Horseshoe* (2020).

With respect to land supply in Wilmot, the CALNA states:

"There is an estimated June 1, 2021 housing unit supply approximately 1,850 units within the Settlement Areas of New Hamburg and Baden. Only 11% of the unit supply, or 204 units, are located within the built-up area. The limited supply of units within the built-up area could make achieving the 30% intensification target in the Wilmot Official Plan challenging...If Wilmot does not have a sufficient supply of units available within the built-up area to accommodate the intensification target, it could result in housing shortages and reduce affordability."

The CALNA is divided into 6 components in the Province of Ontario's LNA methodology which are:

1. Population Forecasts
2. Housing Need
3. Allocation of Housing Needs
4. Housing Supply Potential by Policy Areas
5. Community Area Jobs
6. Need for Additional Land

The CALNA concludes that a Settlement Area boundary expansion of 170 gross hectares will be required to accommodate forecasted population and employment growth to 2051.

The expansion of at least 170 gross hectares is based on the intensification and DGA density targets contained in the Township of Wilmot Official Plan. However, as outlined in Section 5.0 of this report, the Township does not have a sufficient supply of vacant residential lands within the built boundaries to meet the 30% intensification target. Therefore, achieving the intensification target will require the development of vacant sites not currently under application and the redevelopment of underutilized sites located throughout the built-up area of New Hamburg and Baden.

The CALNA also concludes that through the proposed Master plan provides an opportunity to accommodate a portion of the forecasted population and employment growth to 2051 in an area already within the Countryside Line and adjacent to the existing New Hamburg Settlement Area boundary. In addition, the CALNA discusses the importance of the proposed seniors housing, purpose-built rental housing, and affordable housing in achieving policy objectives contained within Section 4.2.1 of the Township of Wilmot Official Plan, including providing a full range and mix of housing types, tenures and densities, as well as Section 4.2.2, by providing for the development of affordable housing.

4.2 Transportation Brief

A Transportation Brief was prepared by Paradigm Transportation Solutions Ltd., dated December 10, 2021 (the "Transportation Brief"). The purpose of the Transportation Brief is to determine the forecasted available capacity, to review the proposed spacing of the proposed street connections on Nafziger Road, and to provide recommendation for future consideration as detailed design proceeds.

The Transportation Brief concludes that the combined 2026 traffic (including background traffic volumes, forecast background development volumes, and the additional site-generated traffic) is below the per-day threshold for Nafziger Road, an arterial road. The Transportation Brief also concludes that the 3 proposed street connections to Nafziger Road are spaced to meet the requirements for intersection spacing on an arterial road and spacing from an at-grade rail crossing.

The Transportation Brief made the following recommendations for future considering as the planning for the proposed development progresses:

Signalization or roundabout at the central access: Given the proximity to the highway it is likely that there will be a high number of northbound left-turning and eastbound right-turning vehicles at this intersection. Appropriate traffic control will need to be assessed.

Storage lane between rail crossing and south access: The southern intersection is 130 metres north of the at-grade rail crossing. This meets the minimum required spacing (30 metres); however, consideration will need to be given to a possible left-turn storage lane and associated taper at this intersection and that more space may be required to accommodate the taper without crossing the rail tracks.

Ultimate cross-section of Nafziger Road: With the build-out of the surrounding area and the increased demand on Nafziger Road, consideration will need to be given to the ultimate cross-section, potential for lowering posted speed limit, urbanization, or widening.

In reviewing the proposed development as part of an urban boundary expansion, the Transportation Brief provides sufficient justification that the proposed development can be accommodated on Nafziger Road without creating any unacceptable impacts. Furthermore, through the detailed design and implementation of the Master plan, the aforementioned recommendations will be implemented.

4.3 Servicing Brief

MTE Consultants Inc. prepared a Preliminary Servicing Brief, dated February 8, 2021 (the "MTE Brief") to summarize the development potential of the lands and describe the potential grading, servicing, and stormwater management required to adequately service and develop the site. The MTE Brief concluded that through the proposed development of the lands to the west of the site (NH Properties) there is a potential to service the subject site with sanitary, water, and storm outlet. Alternatively, the subject lands could be serviced by sanitary sewer along Nafziger Road.

Walterfedy was also retained to prepare a Preliminary Servicing Overview Technical Memo, dated December 8, 2021 (the "Walterfedy Memo"). It provides the following conclusions as it relates to the site's ability to deal with stormwater, wastewater, water, transportation and grading:

- The Master Plan includes stormwater management ponds that will control post-to pre-development flows and meet the Grand River Conservation Authority and Ministry of the Environment, Conservation and Parks standards.
- The subject lands can be adequately serviced through both existing and planned infrastructure (sanitary, storm, and watermain).
- Wastewater servicing through the "N1" employment lands for lands north of the railway is the most efficient use of existing and proposed infrastructure, minimizes sewer depths, and subsequently construction costs.
- There is sufficient wastewater capacity in the Baden/New Hamburg wastewater system.
- The subject lands provide linkages for all forms of transportation within the greater community.

5

Policy & Regulatory Context and Analysis

As set out below, the proposed urban boundary expansion and development proposal is supportive numerous policy directions set out in the Provincial Policy Statement, A Place to Grow: the Growth Plan for the Greater Golden Horseshoe, the Region of Waterloo Official Plan, as amended, and the Township of Wilmot Official Plan, all of which promote the efficient use of land and infrastructure through the development of compact building forms, particularly in proximity to transit, public service facilities, and commercial/retail uses. These planning policy documents also recognize the need for settlement areas to grow and expand to accommodate growth and they provide guidance to ensure it is done in a sustainable way that supports the development of complete communities.

5.1 Provincial Policy Statement (2020)

On February 28, 2020, the Province released the new final approved Provincial Policy Statement ("PPS") which replaces the PPS issued on April 30, 2014. The 2020 PPS took effect May 1, 2020 and is applicable to the subject site.

Policy 1.1.3.8 of the PPS states:

A planning authority may identify a settlement area or allow the expansion of a settlement area boundary only at the time of a comprehensive review and only where it has been demonstrated that:

- a. sufficient opportunities to accommodate growth and to satisfy market demand are not available through intensification, redevelopment and designated growth areas to accommodate the projected needs over the identified planning horizon;
- b. the infrastructure and public service facilities which are planned or available are suitable for the development over the long term, are financially viable over their life cycle, and protect public health and safety and the natural environment;
- c. in prime agricultural areas:
 1. the lands do not comprise specialty crop areas;
 2. alternative locations have been evaluated, and

- i. there are no reasonable alternatives which avoid prime agricultural areas; and
- ii. there are no reasonable alternatives on lower priority agricultural lands in prime agricultural areas;
- d. the new or expanding settlement area is in compliance with the minimum distance separation formulae; and
- e. impacts from new or expanding settlement areas on agricultural operations which are adjacent or close to the settlement area are mitigated to the extent feasible.

In undertaking a comprehensive review, the level of detail of the assessment should correspond with the complexity and scale of the settlement boundary expansion or development proposal.

Response: As is demonstrated in the CALNA, sufficient opportunities do not exist within the Township to accommodate growth and satisfy market demand through intensification, redevelopment and DGA's to accommodate the projected needs to 2051. The CALNA concludes that Wilmot will require an expansion of 170 gross hectares to accommodate Community Area land needs to 2051 based on the market-based scenario and in accordance with the Province's LNA Methodology. Criteria a) is therefore satisfied and additional lands would be required to accommodate growth over the identified planning horizon.

the infrastructure and public service facilities which are planned or available are suitable for the development over the long term, are financially viable over their life cycle, and protect public health and safety and the natural environment;

As demonstrated in the MTE Brief and Walterfeddy Memo, there is planned infrastructure to support the proposed development. Regarding public service facilities, the proposed master plan includes a public park, two urban plazas, and an agri-hub that will provide support to existing and future residents. There are also a number of schools (Forest Glen Public School, Waterloo-Oxford District Secondary School, Sir Adam Beck Public School and Baden Public School) and a recreation centre (Wilmot Recreation Complex) nearby to service future residents of the site.

The Servicing Brief did not identify any financial, public health and safety or natural environment concerns. Accordingly, it is our opinion that Criteria b) is achieved.

Regarding criteria c) and e), the subject site is not considered a specialty crop area. The site is within the Countryside Line which represents the long-term boundary between the Baden and New Hamburg Township Urban Area and the countryside, which is the area within Wilmot that is planned to accommodate urban expansions. Despite its current use and classification as a Prime Agricultural Area, the site, through its inclusion within the Countryside Line is planned to accommodate future growth. The master plan concept includes a 0.97 hectare (2.39 acre) "Agri Hub" block that is intended to be a flex space that can accommodate agriculture-related uses such as a farmer's market, community farm, demonstration farms, kid's activities, seasonal agriculture events and educational opportunities, etc. The block is strategically located next to the public park and has great views to the surrounding rural areas to the north and west and great exposure to Waterloo Street. The master plan concept provides an appropriate transition to the rural areas to the north and west with a 10-metre-wide trail system and low rise residential, park and the Agri-hub block.

Also, the proposed Master plan has been designed specifically to address the minimum separation distance formulae to meet the required separation to the livestock operation on the north side of Waterloo Street, thereby satisfying criteria d).

Based on the analysis above, the proposed development is consistent with the PPS and satisfies the criteria for Settlement Area expansions.

5.2 A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2019, as amended)

On May 16, 2019, the Growth Plan (A Place to Grow: The Growth Plan for the Greater Golden Horseshoe) came into effect, replacing the Growth Plan for the Greater Golden Horseshoe, 2017. Furthermore, Amendment 1 (2020) to the Growth Plan (2019) (the "Growth Plan") was approved and came into effect on August 28, 2020. All decisions made on or after this date in respect of the exercise of any authority that affects a planning matter are required to conform with the 2019 Growth Plan, subject to any legislative or regulatory provisions providing otherwise. Section 1.2.3 provides that the Growth Plan is to be read in its entirety and the relevant policies are to be applied to each situation.

Policy 2.2.8.2 states: *A settlement area boundary expansion may only occur through a municipal comprehensive review where it is demonstrated that:*

Criteria	Response
a. based on the minimum intensification and density targets in this Plan and a land needs assessment undertaken in accordance with policy 2.2.1.5, sufficient opportunities to accommodate forecasted growth to the horizon of this Plan are not available through intensification and in the designated greenfield area: <ul style="list-style-type: none"> i. within the upper- or single-tier municipality, and ii. within the applicable lower-tier municipality; 	Yes. See response above to Policy 1.1.3.8.a) in the PPS.
b. the proposed expansion will make available sufficient lands not exceeding the horizon of this Plan, based on the analysis provided for in policy 2.2.8.2 a), while minimizing land consumption; and	Yes. As described in the CALNA, the proposed development is needed to accommodate growth to 2051. Furthermore, the proposed development is at a transit-supportive density of a minimum of 65 persons and jobs per hectare, which exceeds the Growth Plan minimum of 50 persons and jobs per hectare and, as such, would minimize land consumption.
c. the timing of the proposed expansion and the phasing of development within the designated greenfield area will not adversely affect the achievement of the minimum intensification and density targets in this Plan, as well as the other policies of this Plan.	Yes. In our opinion, the proposed expansion would further support intensification through the development of a transit hub, employment uses and commercial amenities that will make the surrounding areas more complete and desirable for intensification.

Policy 2.2.8.3 states: *Where the need for a settlement area boundary expansion has been justified in accordance with policy 2.2.8.2, the feasibility of the proposed expansion will be determined and the most appropriate location for the proposed expansion will be identified based on the comprehensive application of all of the policies in this Plan, including the following:*

Criteria	Response
a. there is sufficient capacity in existing or planned infrastructure and public service facilities;	Yes. The MTE Brief and Walterfedy Memo conclude that the proposed development can be serviced from a water, sanitary, and stormwater management perspective. In addition, the proposal includes a public park, agri-hub block and two urban plazas as new public service facilities, while there are existing schools and a community recreation centre nearby.
b. the infrastructure and public service facilities needed would be financially viable over the full life cycle of these assets;	Yes. The MTE Brief and Walterfedy Memo did not raise any financial issues related to expanding servicing to the subject site. The proposed development would add housing and non-employment uses that would increase the Township's tax base and improve the viability of existing and planned public service facilities.
c. the proposed expansion would be informed by applicable water and wastewater master plans or equivalent and stormwater master plans or equivalent, as appropriate;	Yes. The MTE Brief and Waterfedy Memo is informed by the Township's master plans for water, wastewater and stormwater master plans.
d. the proposed expansion, including the associated water, wastewater and stormwater servicing, would be planned and demonstrated to avoid, or if avoidance is not possible, minimize and mitigate any potential negative impacts on watershed conditions and the water resource system, including the quality and quantity of water;	Yes. The MTE Brief and Walterfedy Memo both conclude that the proposed development can be serviced from a water, sanitary, and stormwater management perspective, specifically through the potential to connect sanitary water, and a storm outlet through the proposed residential development to the west. The proposed development has also been designed with the management of water in mind, specifically with respect to the location of the proposed stormwater management ponds and the Drain that bisects the site.
e. key hydrologic areas and the Natural Heritage System for the Growth Plan should be avoided where possible;	Yes. The Drain and associated buffers have been dedicated to the Township and are absent of any development, beyond the proposed trail to be constructed by the Township.

Criteria	Response
<p>f. prime agricultural areas should be avoided where possible. To support the Agricultural System, alternative locations across the upper- or single-tier municipality will be evaluated, prioritized and determined based on avoiding, minimizing and mitigating the impact on the Agricultural System and in accordance with the following:</p> <ul style="list-style-type: none"> i. expansion into specialty crop areas is prohibited; ii. reasonable alternatives that avoid prime agricultural areas are evaluated; and iii. where prime agricultural areas cannot be avoided, lower priority agricultural lands are used; 	<p>Yes. See response above to PPS Policy 1.1.3.8.c) and e).</p>
<p>g. the settlement area to be expanded is in compliance with the minimum distance separation formulae;</p>	<p>Yes. See above response for PPS Policy 1.1.3.8.d)</p>
<p>h. any adverse impacts on the agri-food network, including agricultural operations, from expanding settlement areas would be avoided, or if avoidance is not possible, minimized and mitigated as determined through an agricultural impact assessment;</p>	<p>Yes. The subject site is contiguous with the existing Township Urban Area to the west which is planned for residential development. The surrounding agricultural operations are already in proximity to existing residential areas and sensitive land uses (i.e. Recreation Centre, Schools). The proposed agri-hub on the subject site will help to provide a connection between the surrounding agricultural uses with the existing and future residents of the area by providing for opportunities for farmers markets, educational programming, and agricultural-related events.</p>
<p>i. the policies of Sections 2 (Wise Use and Management of Resources) and 3 (Protecting Public Health and Safety) of the PPS are applied;</p>	<p>Yes. In terms of Section 2 of the PPS, the natural heritage features surrounding the site (the Drain and associated floodplain) have already been dedicated to the Town for the purposes of providing a multi-use, active transportation connection and to protect the drainage facility. There are no other natural heritage features on the site.</p> <p>In terms of Prime Agricultural Areas, see above the response provided for Policy 1.1.3.8.c) in the PPS.</p> <p>With regards to protecting public health and safety, the proposed Master plan includes a <i>Mixed-Use Employment Area</i> that is subject to the provincial D-6 land use compatibility guidelines to ensure public health and safety.</p>

Policy 2.2.8.5: *Notwithstanding policies 2.2.8.2 and 5.2.4.3, a settlement area boundary expansion may occur in advance of a municipal comprehensive review, provided:*

Criteria	Response
a. the lands that are added will be planned to achieve at least the minimum density target in policy 2.2.7.2 or 2.2.5.13, as appropriate;	Yes. The minimum density target for designated greenfield areas within the Region of Waterloo (policy 2.2.7.2) is a minimum of 50 residents and jobs per combined hectare. The proposed development will require a minimum density of 65 residents and jobs per hectare.
b. the location of any lands added to a settlement area will satisfy the applicable requirements of policy 2.2.8.3;	Yes. See analysis above.
c. the affected settlement area is not a rural settlement or in the Greenbelt Area;	Yes. The subject site is not a rural settlement or in the Greenbelt Area.
d. the settlement area is serviced by municipal water and wastewater systems and there is sufficient reserve infrastructure capacity to service the lands; and	Yes. The MTE Brief and Walterfedy Memo conclude that the proposed development can be serviced from a water, sanitary, and stormwater management perspective.
e. the additional lands and associated forecasted growth will be fully accounted for in the land needs assessment associated with the next municipal comprehensive review	Yes. The lands and associated forecasted growth will be accounted for in the Region of Waterloo's LNA currently in the process of being completed.

Policy 2.2.8.6 also states that *for a settlement area boundary expansion undertaken in accordance with policy 2.2.8.5, the amount of land to be added to the settlement area will be no larger than 40 hectares.*

Response: The proposed development contemplates the addition of 43 ha into the Township Urban Area/Settlement Area. Although the proposed development is slightly greater than 40 hectares, it includes a rail corridor buffer, agri-hub and arterial road widenings that bring the net developable area (as defined by the Growth Plan) below the 40-hectare limit. The exact site area will be determine once these elements are confirmed by the Township, however, it is our understanding that the net site area will definitely be 40 hectares or less.

5.3 Ministry of Environment, Conservation, and Parks D-Series Guidelines

The Province of Ontario's Ministry of Environment, Conservation and Parks ("MECP") D6 Series Guidelines (the "D6 Guidelines") are intended to be applied in the land use planning process to prevent or minimize future land use problems due to the encroachment of sensitive land uses (i.e., residential uses) and industrial land uses on one another. The Guidelines categorize industrial facilities into three (3) Classes according to the objectionable nature of their emissions, their physical size/scale, production volumes, and/or the intensity and scheduling of operations.

The Guidelines identify influence areas (i.e., areas within which adverse effects may be experienced) as well as recommended minimum separation distances for which incompatible development should not occur within. These influence areas and minimum separation distances are listed below:

Facility Class	Potential Area of Influence (metres)	Recommended Minimum Separation Distance (metres)
Class I	70	20
Class II	300	70
Class III	1,000	300

These guidelines will be applied to the existing fertilizer manufacturing facility located on the south side of the CN rail corridor, as well as a land use compatibility study to determine what mitigation is required. The Master plan has been designed to include a *Mixed-Use Employment* area that will accommodate non-residential uses near this facility and the introduction of any sensitive land use, including residential uses are only permitted subject to compliance with the D6 Guidelines, to the satisfaction of the Township.

Further study will be completed prior to development to ensure appropriate separation distances are maintained as well as to assess the potential for adverse effects on the subject site such as noise and air quality.

5.4 Region of Waterloo Official Plan

The Region of Waterloo Regional Council adopted the Regional Official Plan ("ROP") in June 2006 in conformity with the former Growth Plan for the Greater Golden Horseshoe that came into effect in June 2006. The ROP was appealed and subsequently approved by the Ontario Municipal Board in June 2015. On May 29, 2018, Council adopted ROPA 1 with the implementing by-law passed on June 6, 2018 (By-law 18-029) which amended the urban area on Map 3c as well as the "Countryside Line" on Map 7 of the ROP (see **Figures 5 and 6** – Schedule A and Schedule B of ROPA 1/By-law 18-029). This ROP remains in-effect for the subject site. The Countryside Line, as amended, along with the existing Urban Areas, is simplified on **Figure 7**, below.

The Countryside Line represents the long-term boundary between the Baden and New Hamburg Township Urban Area and the countryside. ROPA 1 rationalized the boundary of the Countryside to focus the Township's long-term growth between Baden and New Hamburg. As stated by Regional Planning staff in Report PDL-CPL-18-11 dated March 20, 2018, this change was intended to implement Wilmot Township Council's preferred growth management strategy to physically connect Baden and New Hamburg over time. The analysis and rationalization undertaken by the Region and Township, as stated by Regional Planning Staff, are neutral, meaning that the intent of the exercise and ROPA was to reconfigure the boundaries and that no additional land was designated to accommodate growth at the time of the approval of ROPA 1.

In December 2017, Wilmot completed a review of its Official Plan ("OP") to bring into conformity with the new ROP and the Growth Plan (2017) and to ensure it was consistent with the PPS (2014). As part of that conformity exercise, the Township carried out a rationalization exercise in accordance with Policies 2.B.7 and 2.B.8 in

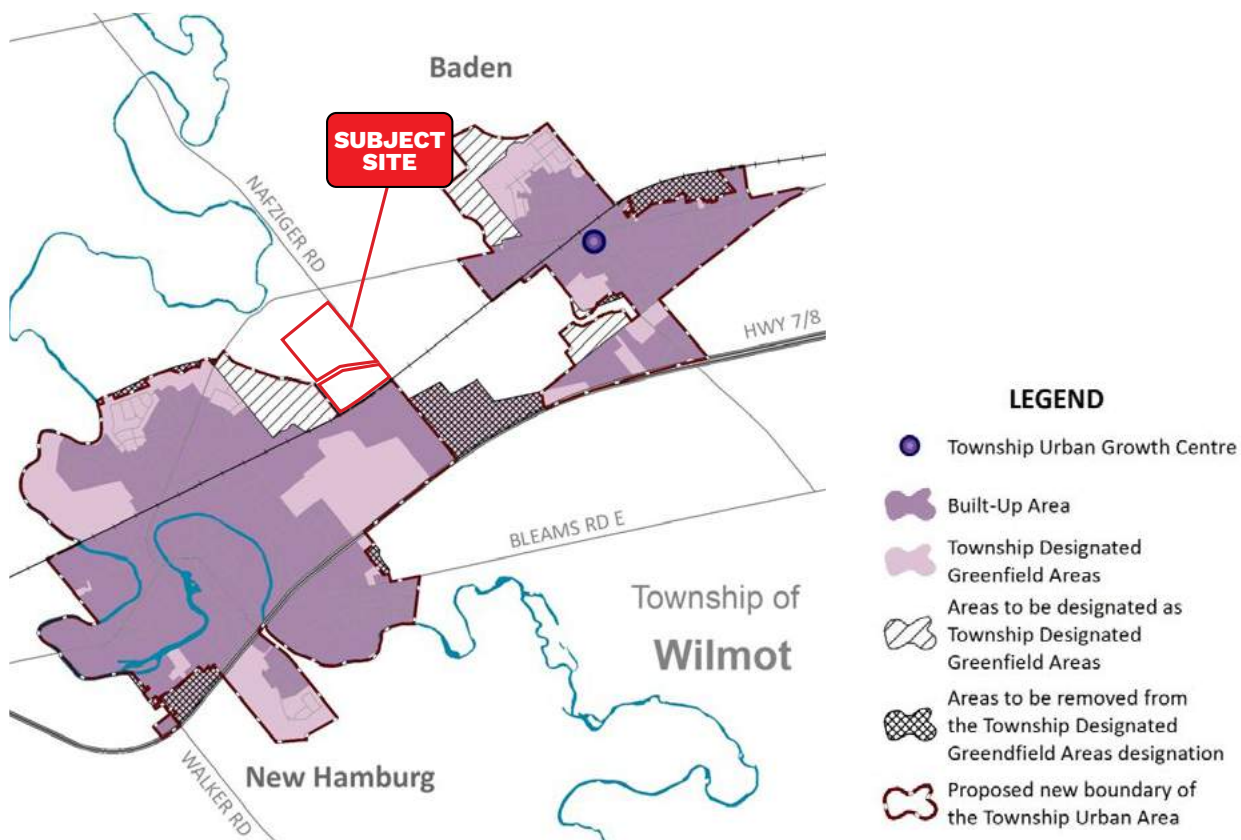
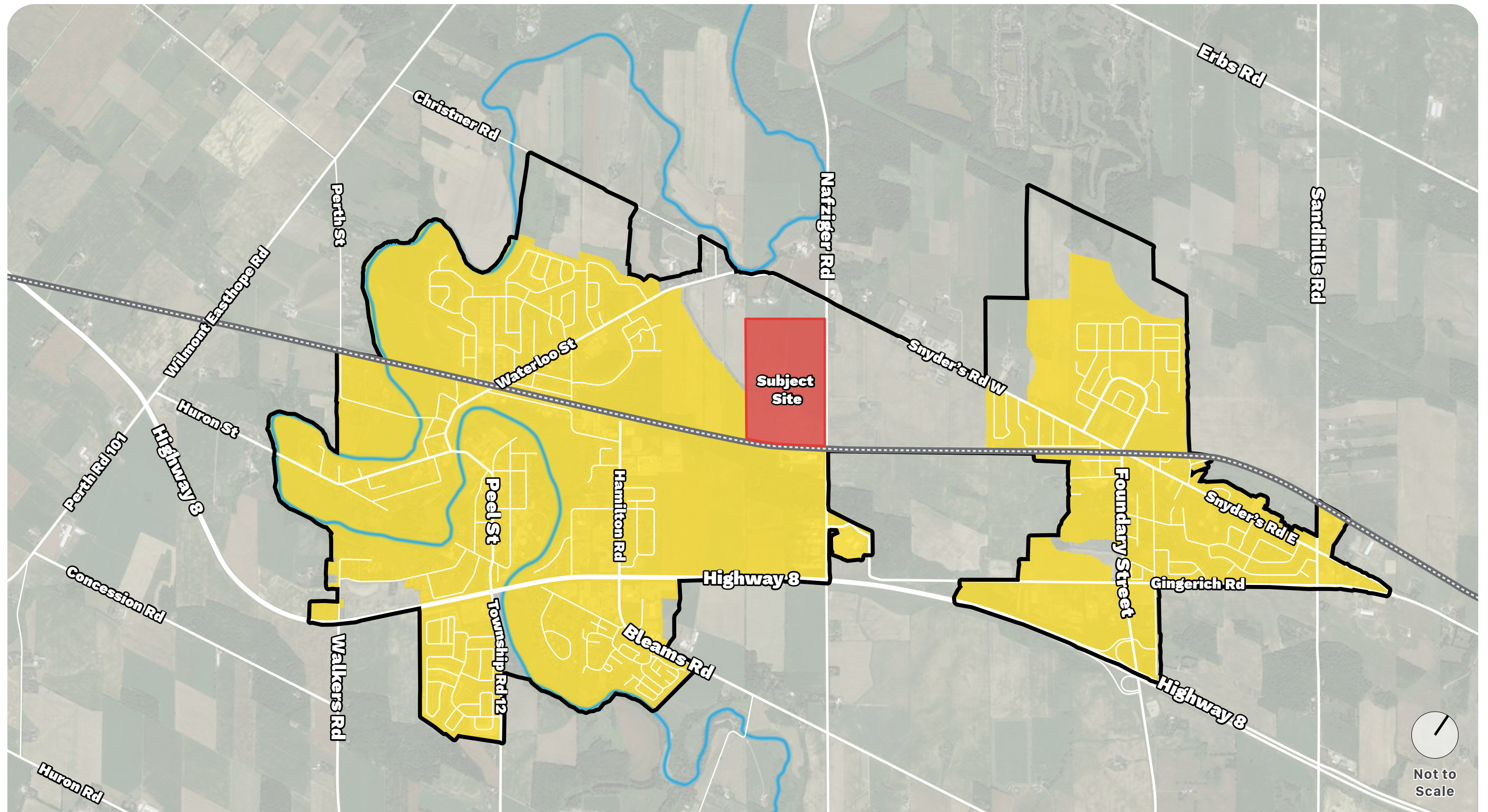


Figure 5 - Schedule A of ROPA 1/By-law 18-029



Figure 6 - Schedule B of ROPA 1/By-law 18-029



Legend

- Subject Site
- Urban Area
- Countryside Line

Figure 7 - Surrounding Urban Area

the ROP. These two planning exercises (the OP review and rationalization exercise) culminated in Amendment No. 9 to the OP which Township Council adopted of December 11, 2017 under By-law 2017-54.

The subject site, while located within the Region's Countryside Line is located outside of the existing New Hamburg urban area. As illustrated in **Figure 5** (Schedule A of By-law 18-029) above, the southern portion of the site abuts the existing Township Urban Area.

Chapter 2 of the ROP contains policies and objectives related to the Region's growth management. Objective 2.1 is to establish a Countryside Line to contain future urban growth and protect farmlands and sensitive natural areas. Objective 2.3 is to promote Transit Orientated Development with a diverse mix of land uses, housing types, and open spaces in close proximity to each other. Objective 2.4 is to meet or, where feasible, exceed Provincially-directed density and reurbanization targets to make better use of the land and infrastructure. Objective 2.5 is to anticipate and plan for growth in Urban and Township Designated Greenfield Areas and other areas within the Countryside Line as appropriate to ensure sufficient lands are available for future residential, employment and other needs.

Response: the proposed Master plan achieves the overall growth management objectives by facilitating future development within the established Countryside Line that will help establish New Hamburg as a more complete community by providing a mix of land uses and residential dwelling types. The proposed Master plan exceeds the Provincially-directed density targets for Designated Greenfield Areas as the concept proposes a minimum density of 65 persons and jobs per hectare. Lastly, based on the CALNA, additional Community Area Lands are needed to meet the population and employment forecasts to 2051 and the proposed Master plan will help to ensure that sufficient lands are available for residential, employment, and other specific needs such as senior housing and affordable rental units.

Policy 2.B.3 states: *Future expansions to the boundaries of the Urban Area are only permitted onto lands within the Countryside Line as shown on Map 7 where:*

Policy Criteria	Response
a. the expansion is justified through the preparation of a Regional Land Budget completed by the Region as part of a five-year municipal comprehensive review of this Plan, or the completion of a municipal comprehensive review as otherwise initiated by Regional Council;	Yes. As described in the CALNA, its findings are based on allocating the Region's forecasts contained in Schedule 3 of the Growth Plan to Wilmot.
b. the density targets and reurbanization targets contained in this Plan have been met or exceeded for the Region as a whole, or it can be clearly demonstrated that achievement of such targets will not be hindered by the proposed expansion;	Yes. The proposed Master plan includes a minimum target of 65 persons and jobs per hectare, which exceeds the Region's targets and the proposed expansion would help the Region achieve its growth targets to 2051.
c. sufficient opportunities to accommodate the population and employment forecasts in this Plan, through reurbanization and in Urban and Township Designated Greenfield Areas, are not available: <ul style="list-style-type: none"> i. within the region as a whole; and ii. within the applicable Area Municipality to accommodate the growth allocated to the Area Municipality by this Plan 	Yes. As is described in the CALNA, there is insufficient opportunities and Wilmot requires a minimum of 170 hectares of new community land to accommodate growth to 2051. As part of the Region's Official Plan Review, a growth scenario evaluation technical brief was prepared and concluded that additional community land is needed to accommodate growth and to address market demand.
d. the expansion provides sufficient lands for a time horizon not exceeding 20 years, using the density targets, reurbanization targets and other policies in this Plan. In conformity with the provisions of subsection 2.B.3 (a) and the Schedule 3 2031B forecast of the Places to Grow: Growth Plan for the Greater Golden Horseshoe, and to further implement the Ontario Municipal Board decision relating to the final approval of this Plan, justification exists for the designation of a maximum of 170 ha of Urban Designated Greenfield Area for residential purposes over and above that included in the Urban Area as of the time of the final approval of this Plan. This additional land will be designated in accordance with the provisions of subsections 2.B.3 (i) and (j);	Yes. The proposed expansion relates to the land required to accommodate growth to 2051. As described in the CALNA, 170 hectares of community land is needed to accommodate the projected growth in Wilmot to 2051.
e. the existing or planned infrastructure required to accommodate the proposed expansion can be provided in a financially and environmentally sustainable manner and is consistent with any applicable Regional and/or Area Municipal infrastructure master plan	Yes. See responses above.

f. the expansion is of a sufficient size to be developed as a complete community by itself, or can be integrated with existing development to contribute to a complete community	Yes. The proposed expansion would be developed as a complete community and make the surrounding areas more complete by adding a transit hub, employment uses, commercial amenities and public service facilities that will support the surrounding neighbourhoods.
g. any applicable watershed studies have been completed consistent with the policies in Section 7.F, prior to the approval of the expansion;	A drainage study was completed for the drain corridor that bisects the subject site. Furthermore, given small size of the subject site, a more detailed watershed review will be completed as part of the required future development applications.

Policy 2.B.5 states:

Township Urban Areas are designated as shown on Maps 3b to 3e. This designation contains the primary urban areas of the Townships of North Dumfries, Wellesley, Wilmot and Woolwich that are not part of the Urban Area. The lands included within this designation are intended to serve as the primary focus for non-Urban Area growth within the planning horizon of this Plan, and will be planned and developed in accordance with the policies in Sections 2.C, 2.E and 2.G and other applicable policies in this Plan.

Policy 2.B.6 of the ROP also states:

Future expansions to the boundaries of Township Urban Areas are only permitted onto lands within the Countryside Line as shown on Map 7 in this plan, and will be subject to the following:

- the proposed expansion will be in conformity with the provisions set out in Policy 2.B.3 (a) to (g) inclusive; and
- the proposed expansion will maintain, or move significantly towards, a minimum of one full-time job per three residents within the Township Urban Area.

Response: The ROP includes a growth structure that provides guidance on where urban boundary expansions should occur. In this regard, the subject site is located within the Countryside line and is a planned urban expansion area. The proposal achieves the criteria and conforms to the policies of 2.B.5, 2.B.6, and 2.B.3 of the ROP as described above.

Policy 2.B.7, states: The Townships of North Dumfries, Wellesley, Wilmot and Woolwich may propose a rationalization of the boundaries of their respective Township Urban Areas and/or the Countryside Line applicable to a Township Urban Area, to be implemented through a further amendment to this Plan, provided that the rationalization:

As stated by Regional Planning staff in Report PDL-CPL-18-11 dated March 20, 2018, this change was intended to implement Wilmot Township Council's preferred growth management strategy to physically connect Baden and New Hamburg over time. The analysis and rationalization undertaken by the Region and Township, as stated by Regional Planning Staff, are neutral, meaning that the intent of the exercise and ROPA was to reconfigure the boundaries and that no additional land was designated to accommodate growth at the time of the approval of ROPA 1.

In December 2017, Wilmot completed a review of its Official Plan ("OP") to bring into conformity with the new ROP and the Growth Plan (2017) and to ensure it was consistent with the PPS (2014). As part of that conformity exercise, the Township carried out a rationalization exercise in accordance with Policies 2.B.7 and 2.B.8 in the ROP. These two planning exercises (the OP review and rationalization exercise) culminated in Amendment No. 9 to the OP which Township Council adopted of December 11, 2017 under By-law 2017-54.

Policy Criteria	Response
a. only occurs at the time the Area Municipal official plan is first brought into conformity with this Plan;	The Township prepared an OP review and rationalization exercise in 2017 to rationalize the proposed expansion into the Countryside Line lands, including the subject site. The ROP did not include the requested expansion as part of its conformity exercise in 2017. In our opinion, the proposed expansion should be captured as part of the Region's current ROP review, which has identified a need for community lands to achieve the projected growth forecasts to 2051.
b. takes into consideration existing property configurations, patterns of existing land use, natural and constructed features, and will not extend or promote strip development;	Yes. The proposal is for a small urban boundary expansion that is contiguous with the existing Township's urban boundary. The Master Plan has considered the property configurations and land use patterns including the existing drainage corridor and incorporates transition and land use considerations to the surrounding area. The proposal will not extend or promote strip development, but will instead make Wilmot a more complete community.
c. does not result in a net increase in the amount of land designated as Township Designated Greenfield Area and/or located within the Countryside Line, except as provided for in accordance with Policy 2.B.8; and	Yes. The proposal would add lands within the Countryside Line to the urban boundary in conformity with the Wilmot Official Plan.
d. does not exchange provincially constrained environmental areas for unconstrained developable areas.	Yes. The subject site does not include any provincially (or any) constrained environmental areas.

Based on the above criteria, an expansion of the Township Urban Area conforms to the ROP and is appropriate and will fulfill the goals and vision for the Township of Wilmot through the proposed development by providing for a transit-supportive mix of land uses anchored by an active transportation network on lands currently within the Countryside Line. The proposed development will help Wilmot, specifically the communities of New Hamburg and Baden, to grow as complete communities, providing the necessities of life (i.e., residential, employment, retail/commercial) within proximity to each other while promoting the efficient use of land and infrastructure through the proposed densities.

5.5 Region of Waterloo Municipal Comprehensive Review and Regional Official Plan Update

The Region of Waterloo is currently conducting a Review of the ROP in accordance with the policies of the Growth Plan. The Growth Plan forecasts a population of 923,000 and 470,000 jobs for Waterloo Region by 2051. This represents growth of approximately 324,600 people and 177,000 jobs between 2021 and 2051. Under the Growth Plan, the Region must amend the ROP to accommodate these forecasts. In order to inform the amendment to the ROP, the Region has prepared a number of technical briefs including:

- Long-Term Population and Housing Growth Analysis (dated December 2020)
- Growth Scenarios Draft Evaluation Framework (dated July 2021)
- Employment Lands Technical Brief (July 19, 2021)
- Intensification Strategy Technical Brief (dated August 2021)
- Growth Scenario Evaluation Technical Brief (October 2021)

The October 2021 Growth Scenario Evaluation Technical Brief (October 2021) assessed 3 scenarios on top of a "Base Case". A number of comments were received from landowners and the public at the November 9, 2021 Committee of the Whole meeting. At the November 17, 2021 Regional Council meeting, Council directed that prior to any Growth Scenarios being brought before Council for decision, that the Region's LNA be completed in accordance with Provincial requirements and that thorough engagement take place after the LNA has been completed and made available for public consultation prior to staff recommending any Preferred Growth Scenario.

Regional Planning Staff are in the process of preparing and consulting on the draft LNA which has yet to be released in draft for public review.

5.6 Township of Wilmot Official Plan

The Council of the Township of Wilmot adopted the Township of Wilmot Official Plan ("OP") on July 21, 2003 by By-law 2003-44. On July 7, 2004, the Township of Wilmot Official Plan was approved with modifications by the Regional Municipality of Waterloo in accordance with Section 17(34) of the Planning Act, R.S.O. 1990, Chapter p. 13, as amended and came into effect on August 5, 2004. The April 2019 consolidation of the Township Official Plan incorporates all modifications of the Regional Municipality of Waterloo approved on March 29, 2019 and having come into effect on April 19, 2019.

As per Map 2.1 – Planned Township Structure (**Figure 8**), the subject site is located within the Countryside Line and abuts the New Hamburg Urban Area to the west.

Chapter 2 of the OP contains policies related to the planned Township Structure, for which there are 3 distinct areas as shown on Map 2.1: Urban Areas, Rural Settlement Areas, and the Countryside. The preamble to Chapter 2 states that the Countryside Line is intended to serve as a long-term boundary between the existing Baden and New Hamburg Urban Areas and the Countryside.

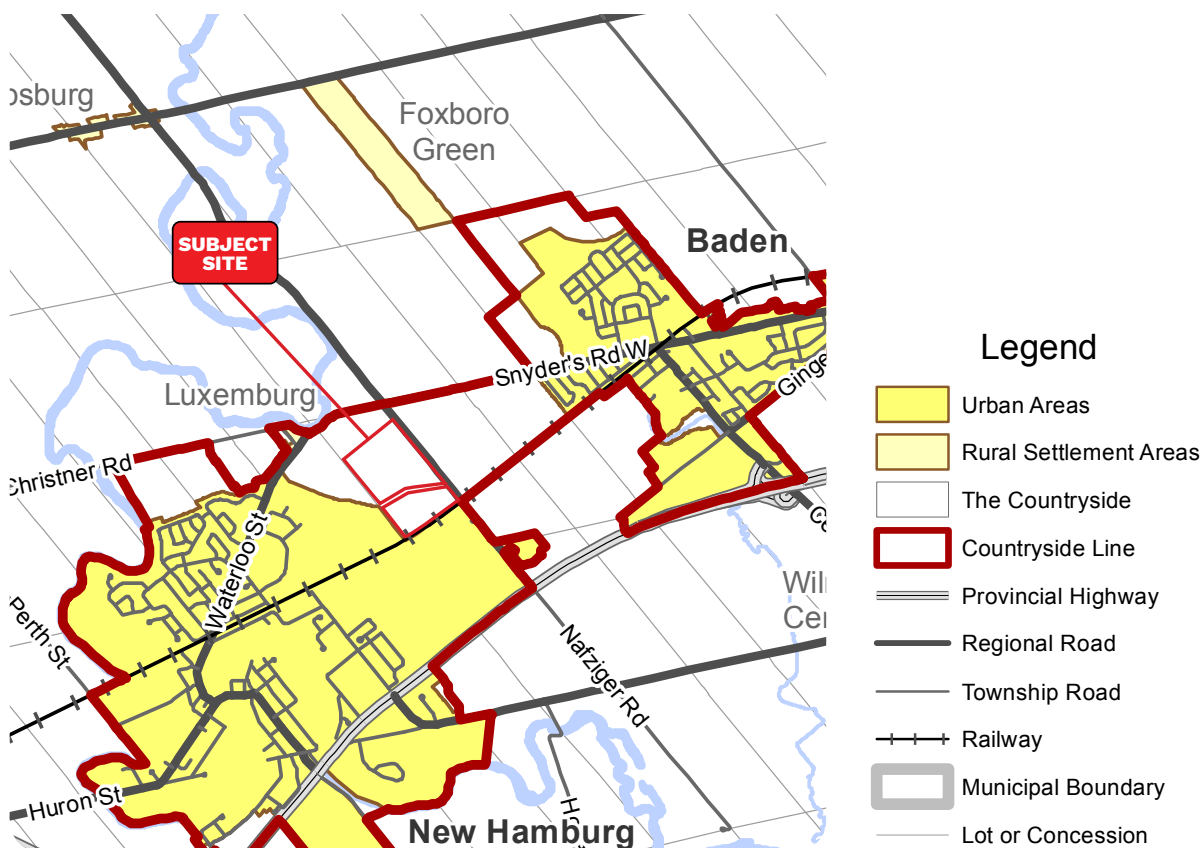


Figure 8 - Planned Township Structure

Section 2.5 of the OP provide the policies for the Township's urban areas and states:

- Baden and New Hamburg Urban Areas will be the primary focus of future residential, employment and commercial growth in the Township (2.5.1.1).
- Development in Baden and New Hamburg Urban Areas will provide for a range of residential, commercial, employment, institutional, recreational and open space land uses (2.5.1.2).
- Development occurring within Baden and New Hamburg Urban Areas is planned and developed in a manner that supports the Planned Township structure, uses municipal water and wastewater services, protects the natural environment, respects the scale, physical character and context of established neighbourhoods, mitigates and adapts to climate change, and integrates green infrastructure and low impact development (2.5.1.3).

Policy 2.5.1.3 g) specifically states that development in Baden and New Hamburg Urban Areas will be developed in a manner that:

"g) supports the achievement of complete communities that:

- i. Feature a diverse mix of land uses, including residential and employment uses, and convenient access to local stores, services and public service facilities;
- ii. Improve social equity and overall quality of life, including human health, for people of all ages, abilities, and incomes;
- iii. Provide a diverse range and mix of housing options, including second units and affordable housing, to accommodate people at all stages of life, and to accommodate the needs of all household sizes and incomes;
- iv. Expand convenient access to:
 - a. Range of transportation options, including options for safe, comfortable and convenient use of active transportation;
 - b. Public service facilities, co-located and integrated in community hubs;

- c. An appropriate supply of safe, publicly-accessible open spaces, parks, trails, and other recreational facilities; and,
- d. Healthy, local, affordable food options, including through urban agriculture.

Policy 2.5.4 states that future expansions to the boundaries of the Baden and New Hamburg Urban Areas are only permitted onto lands within the Countryside Line designated on Maps 2.1 and 10 of this Plan, and will be subject to the policies of the Growth Plan for the Greater Golden Horseshoe and all other applicable policies of the ROP.

Response: The OP is clear in its intention to restrict urban development and expansion to the Baden and New Hamburg Urban Areas and expansions within the Countryside Line. It is also purposeful in its policies to focus growth to these areas and that growth should occur in a coordinated manner and supports the achievement of complete communities. In our opinion, Wilmot's urban areas are not complete and unable to accommodate the forecasted growth to 2051, as outlined in the CALNA. The proposed urban boundary expansion and master plan vision has the ability to achieve the Township's growth objectives to accommodate growth and evolve the urban areas into a complete community. In our opinion, the proposal conforms to the OP, since:

- It proposes a modest urban boundary expansion within the Countryside Line, an area planned for expansion, at the edge of the urban boundary.
- It will accommodate a portion of the Township's projected growth as demonstrated by the CALNA.
- It will focus residential, employment and commercial growth to the expanded urban area.
- It will introduce new residential, commercial, employment and recreational land uses, which will expand the range of these land uses within the urban area.
- It will develop in a manner that supports the Planned Township structure, including the use of existing municipal water and wastewater infrastructure services, while protecting the natural environment, and in a built form, scale

and character that respects and contributes to existing neighbourhoods.

- It will adapt to climate change by developing at a transit supportive density and in a mixed use form and scale that encourages walking, active transportation and transit as the preferred modes of transportation.
- It has the ability to incorporate green infrastructure and low impact development standards.
- It supports the achievement of complete communities within the proposed development and will make the surrounding areas more complete through:
 - A diverse mix of land uses including residential, commercial, employment and public service facilities.
 - Improving social equity and quality of life by providing for a full range of housing options, including seniors, rental and affordable housing, and the development of new public spaces including a park, two urban plazas, trails and an agri-hub.
 - A full range of housing options to accommodate people at all stages of life, and to accommodate the needs of all household sizes and incomes.
 - A full range of transportation options including the development of a transit hub to connect to local and regional transit lines and active transportation networks.
 - The optimization of existing and development of new public service facilities including a new park, two new urban plazas lined by commercial uses, and an agri-hub.
 - The development of an agri-hub that reinforces the area's roots and provides opportunities for community gardens and farmers markets to provide healthy, local, affordable food options.

In accordance with policy 2.5.4 of the OP, the proposed expansion conforms with the applicable policies and criteria of the PPS, Growth Plan and ROP to permit the proposed urban boundary expansion.



6

Conclusion

For the reasons set out in this report, it is our opinion that the proposed urban boundary expansion and master plan development will contribute in an orderly and positive manner to the growth and evolution of Wilmot.

From a planning policy perspective, the subject site is an appropriate and logical location for urban expansion, given its location within the Countryside Line at the edge of the urban boundary. The proposal is consistent with the PPS and conforms to the Growth Plan, ROP, and Wilmot OP, which require the accommodation of the forecasted growth in a logical and orderly fashion and with complete communities that meets the market demands.

Accordingly, it is our opinion that the proposed urban boundary expansion and master plan development is appropriate and desirable and we recommend approval.

Wilmot Village Master Plan

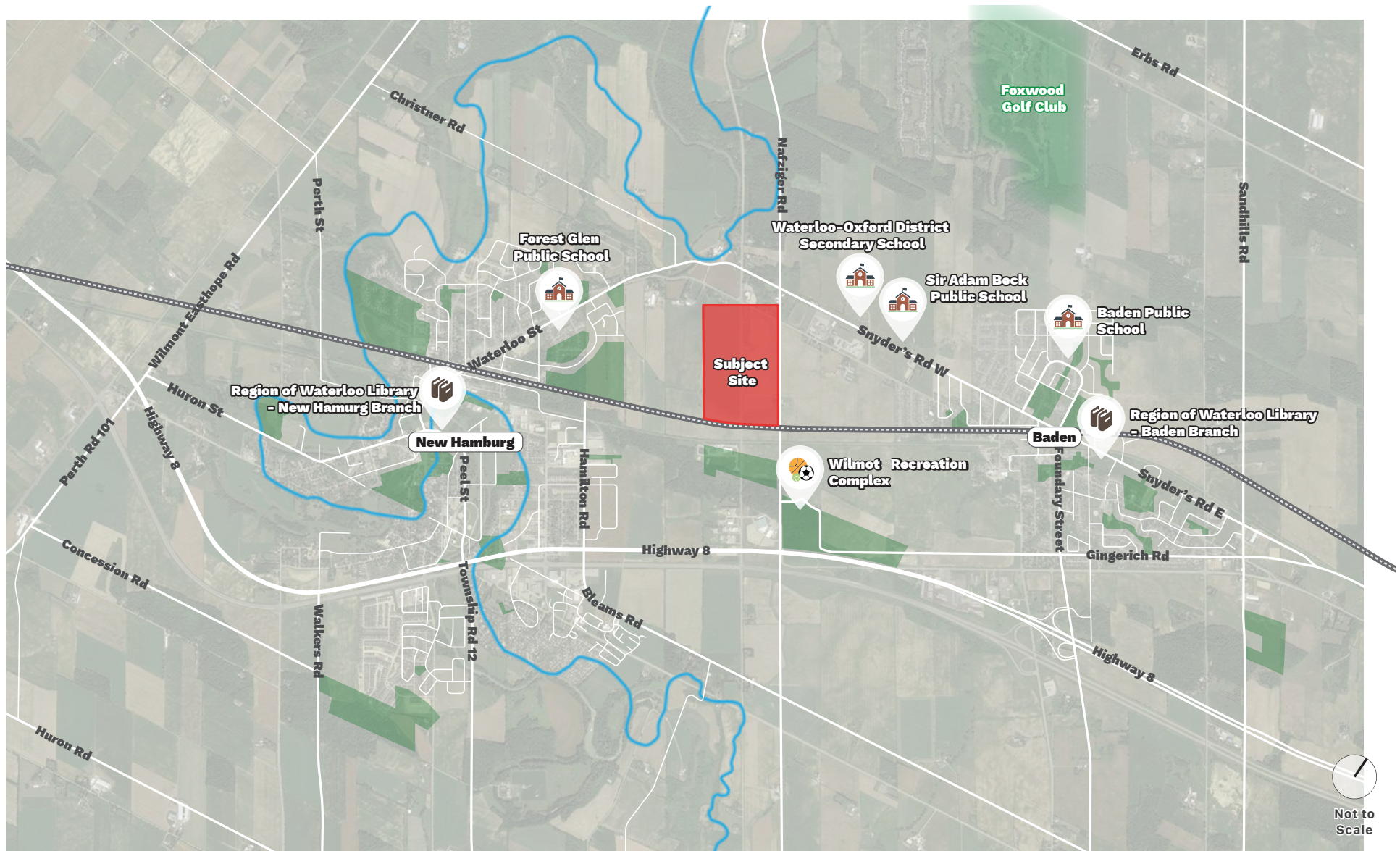
1265 and 1299 Waterloo Street

Wilmot Township

December 2021

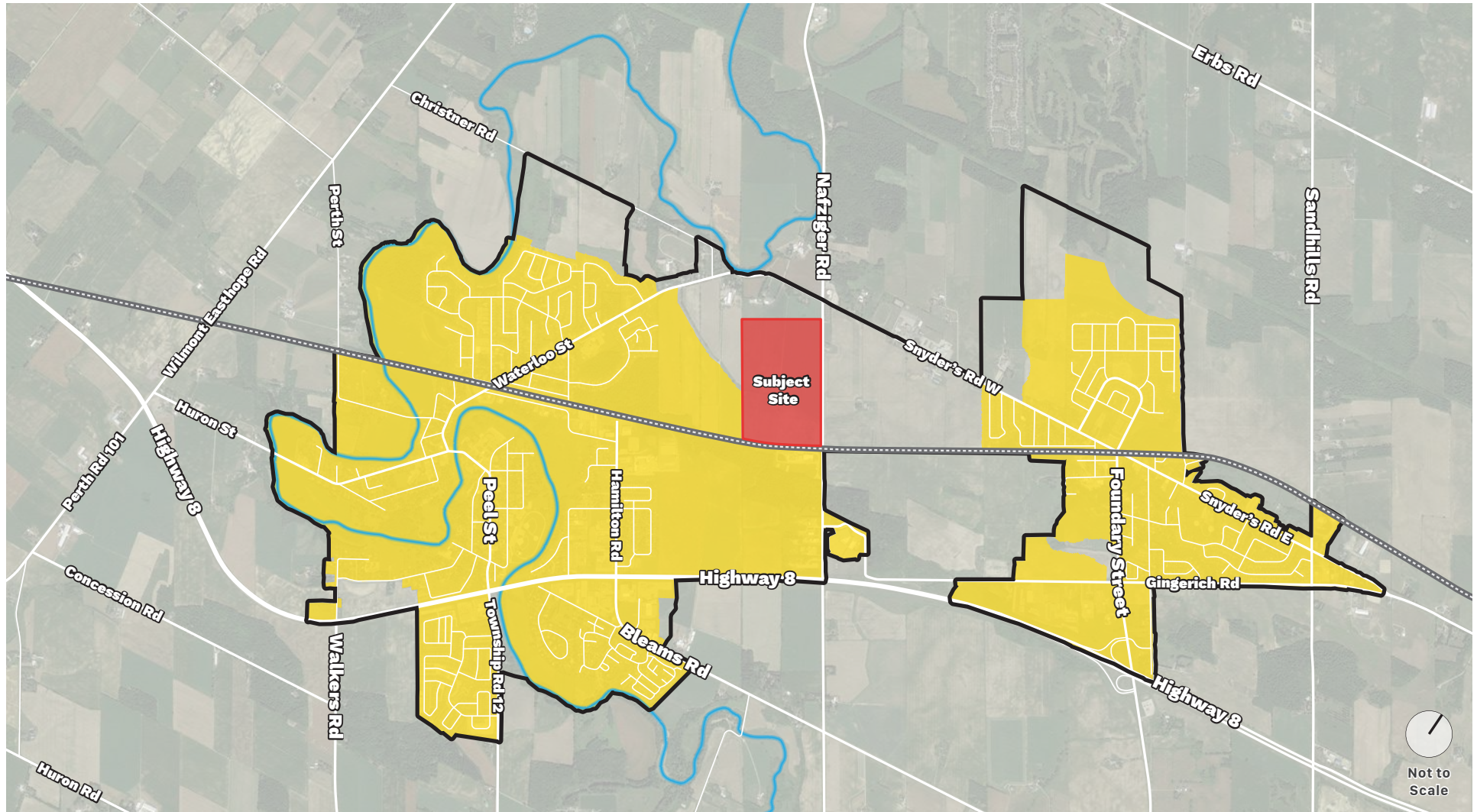


Site & Surroundings



Existing Urban Structure

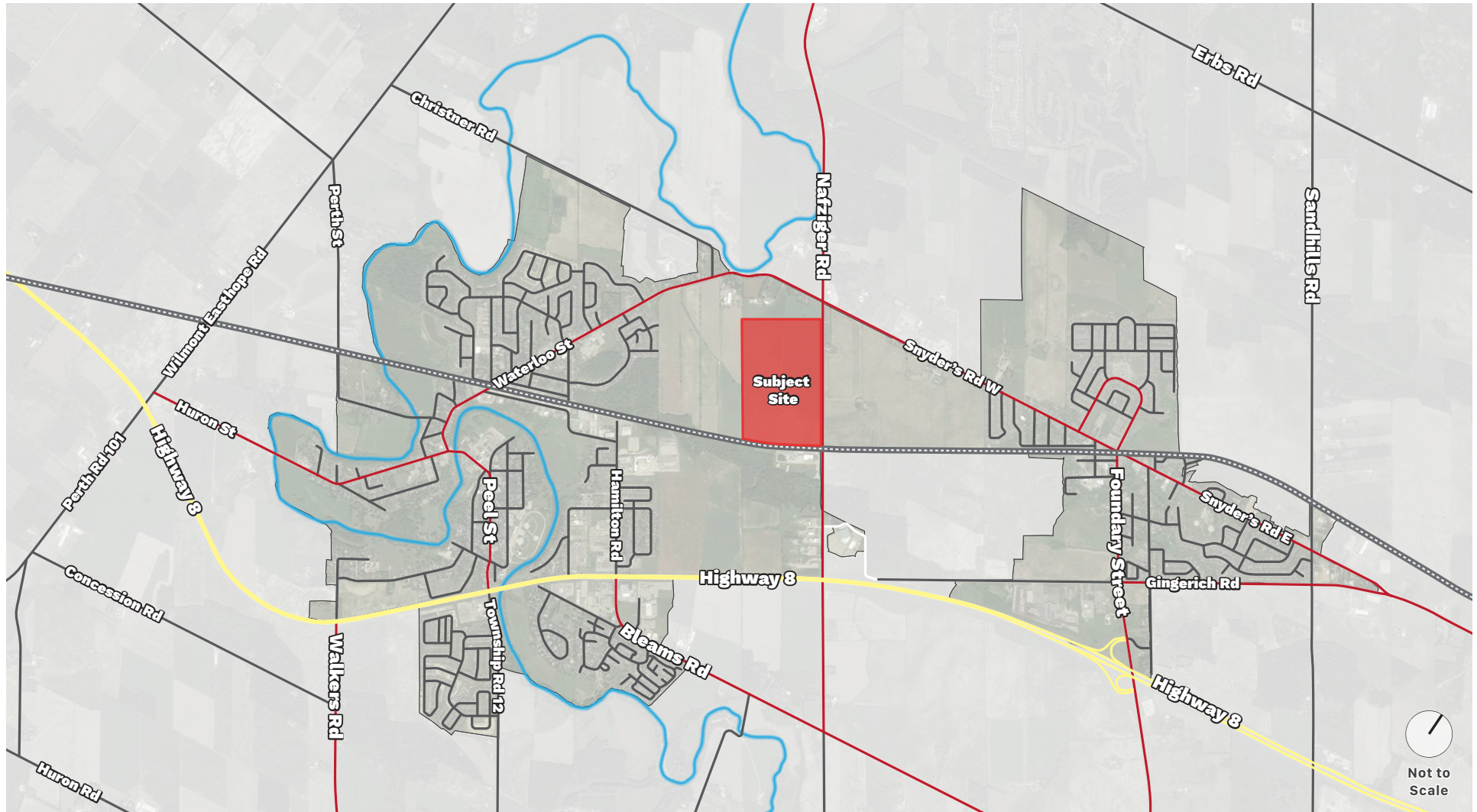
Surrounding Urban Areas



Legend ■ Subject Site ■ Urban Area — Countryside Line

Existing Urban Structure

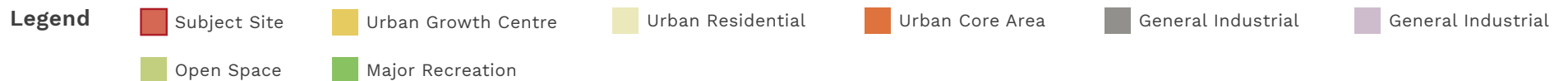
Road Network



Legend ■ Subject Site — Provincial Highway — Regional Road — Township Road

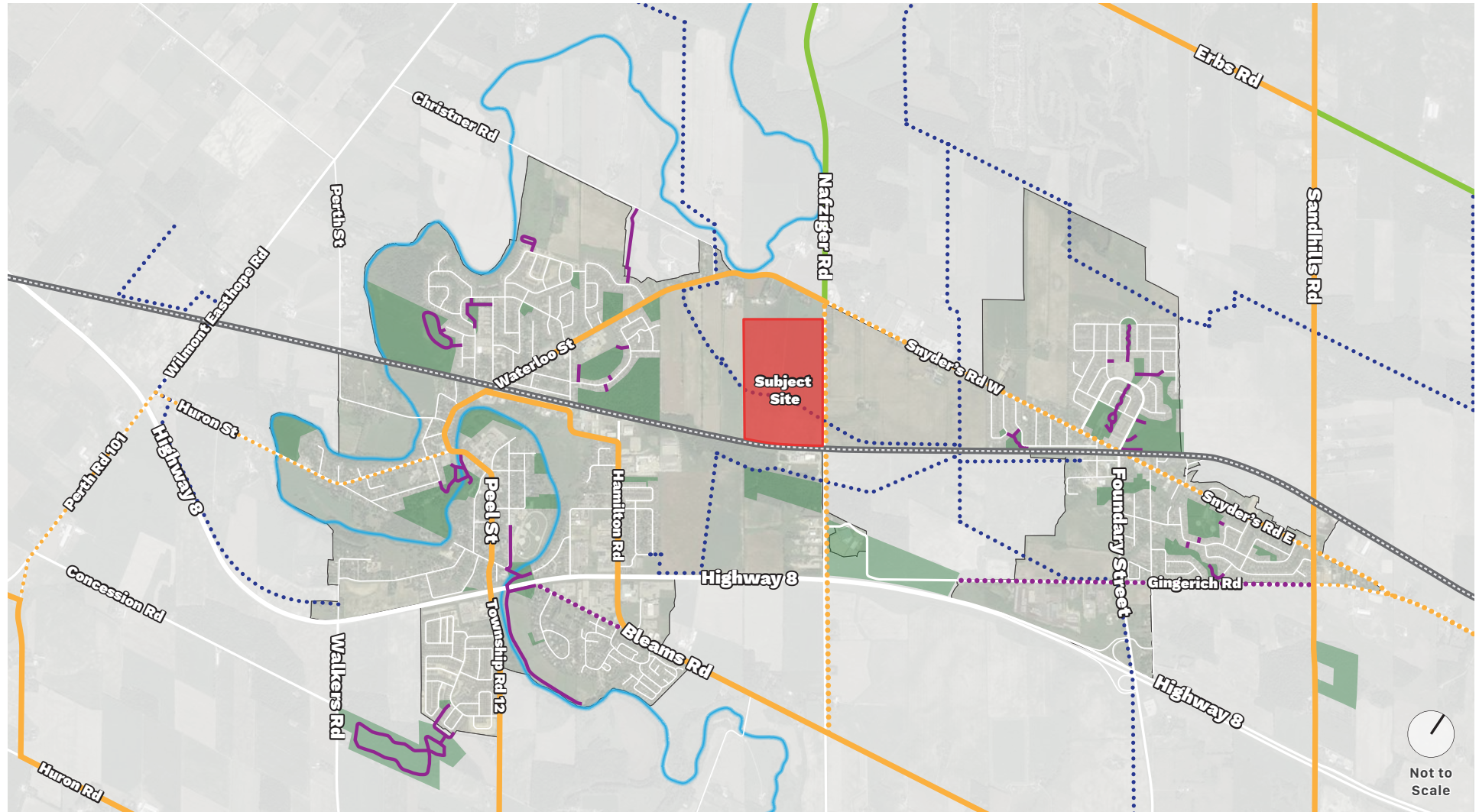
Existing Urban Structure

Surrounding Land Uses



Existing Urban Structure

Cycling Network, Trial Network, Parks and Open Spaces



Legend

- | | | | | |
|--|--|--|--|--|
| Subject Site | SWM, Open Space and Parkland | Planned Cycling Route | Future On Road Cycling Opportunities | Existing Cycling Route |
| Trail | Future Boulevard Multi-Use Trail | Existing Snowmobile Trails | All day Metrolinx Go Service (London - Toronto) | |

The Masterplan

Storeyline

Legend

- Subject Site
- Main Collector Streets
- Internal Streets
- Main Pedestrian Connection
- Parks and Open Space
- Medium-High Density
- Medium Density
- Low Density
- ✱ Focal Point/View Terminus
- Pedestrian Trail
- Multi Use Trail

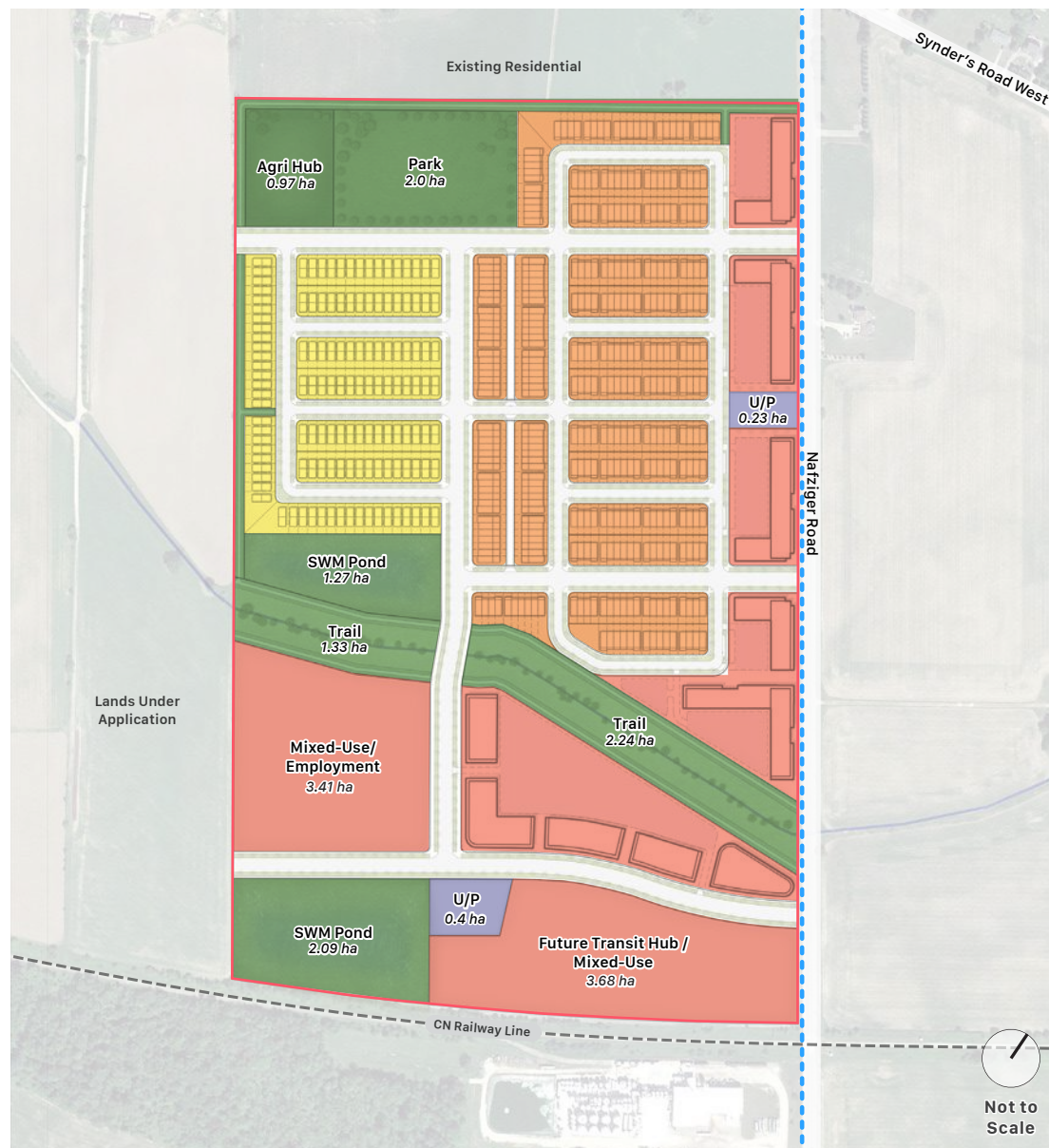


The Masterplan

Land Uses

Legend

- Subject Site
- Medium-High Density
- Medium Density
- Low Density
- Parks and Open Space
- Urban Plaza
- Multi Use Trail



The Masterplan

Site Statistics

1,200 / 1,500

Total Unit Count (Minimum / Upper Range)

2,642 sq.m. / 2,431 sq.m.

Total Retail (GCA / GFA)

66,426 sq.m. / 59,783 sq.m.

Total Office (GCA / GFA)

Building Type	Unit Count (Minimum)	Unit Count (Upper Range)
A) Seniors	100	150
B) Affordable and Rental Apartments	200	200
C) Condominium Apartments	150	200
D) Mixed-Use Condominium Apartments	350	400
E) On-Street Townhouses	250	300
F) Rear-Lane Townhouses	50	100
G) Single Detached Dwellings	100	150

Notes

¹ - Gross Floor Area (GFA) is based on 90% of the Gross Construction Area (GCA)

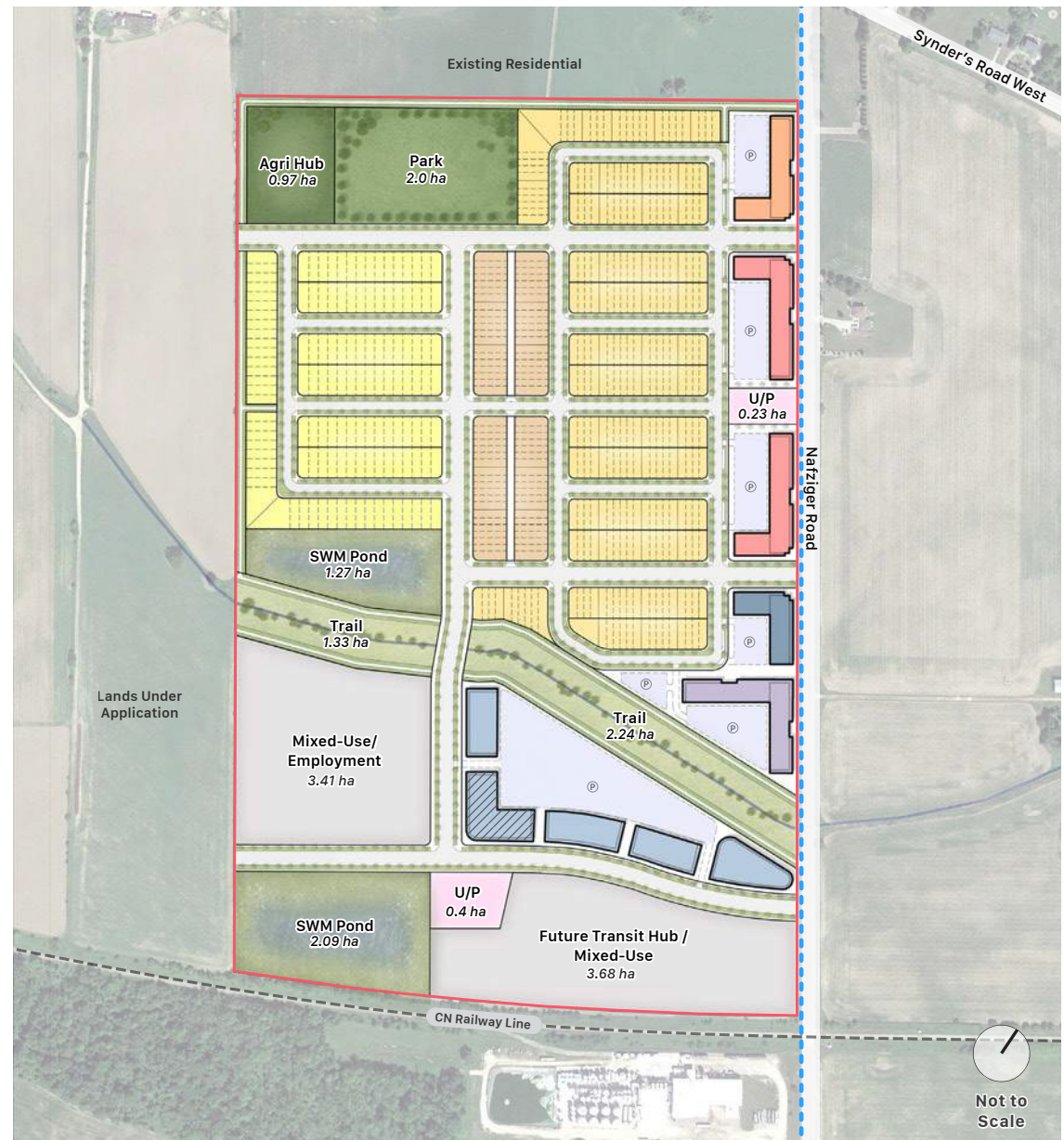
² - Apartment building unit count is based on an approximate average of 80 sq.m. per unit

³ - Total retail Gross Construction Area is based on 40% of the ground floor GCA (applies to mixed-use buildings only)

⁴ - The current total office Gross Construction Area does not include potential future development on the Future Transit Hub / Mixed-Use Area (3.68 ha) and the Mixed-Use/ Employment Area (3.41 ha) shown in the Masterplan Concept.

Legend

 Subject Site	 G) Single Detached Dwellings
 A) Seniors	 Office Buildings
 B) Affordable and Rental	 Medical Office Building
 C) Condominium	 Park
 D) Mixed-Use	 Agricultural hub
 E) On-Street Townhouses	 Urban Plaza
 F) Rear-Lane Townhouses	 Multi Use Trail



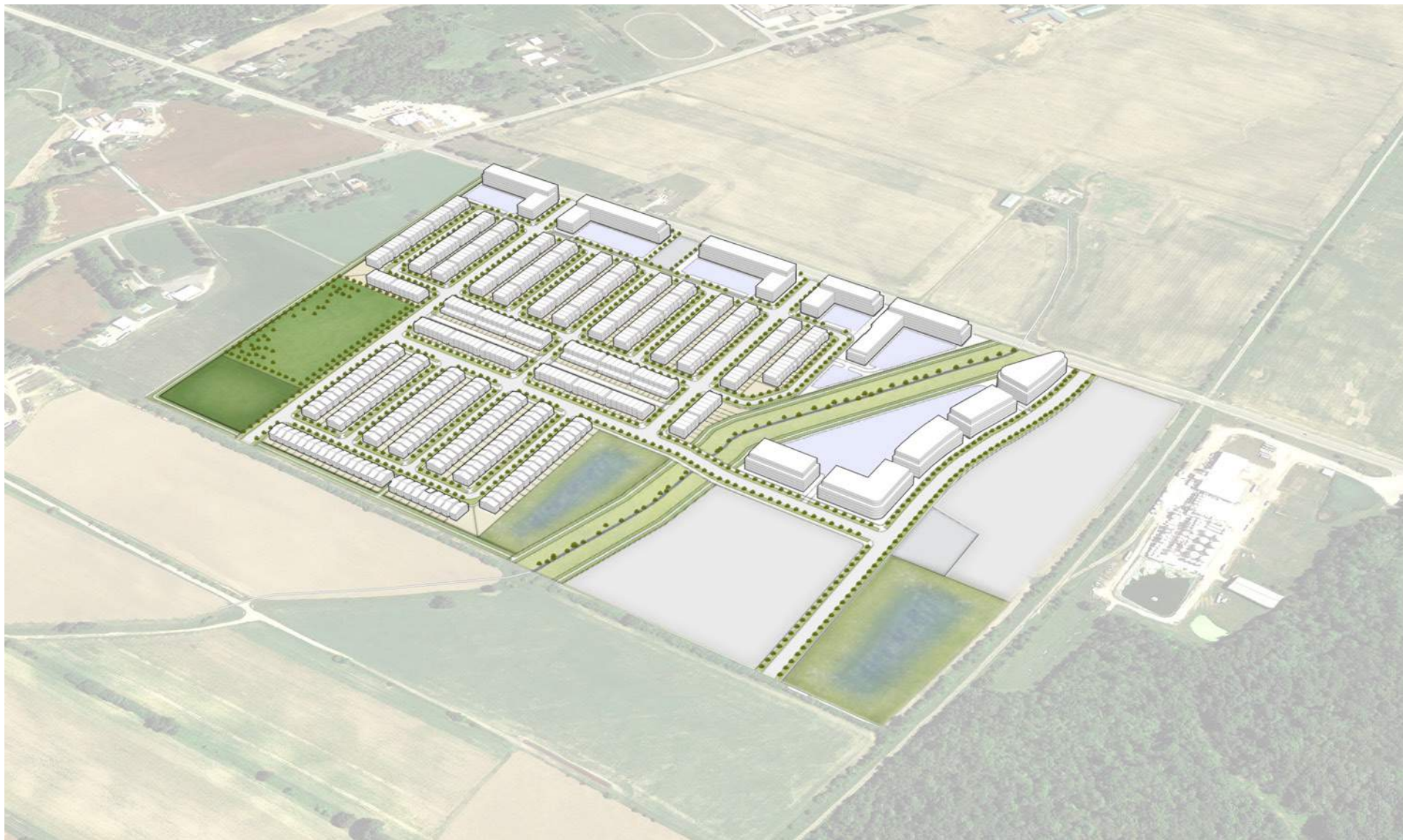
The Masterplan

Birds Eye View of Plan



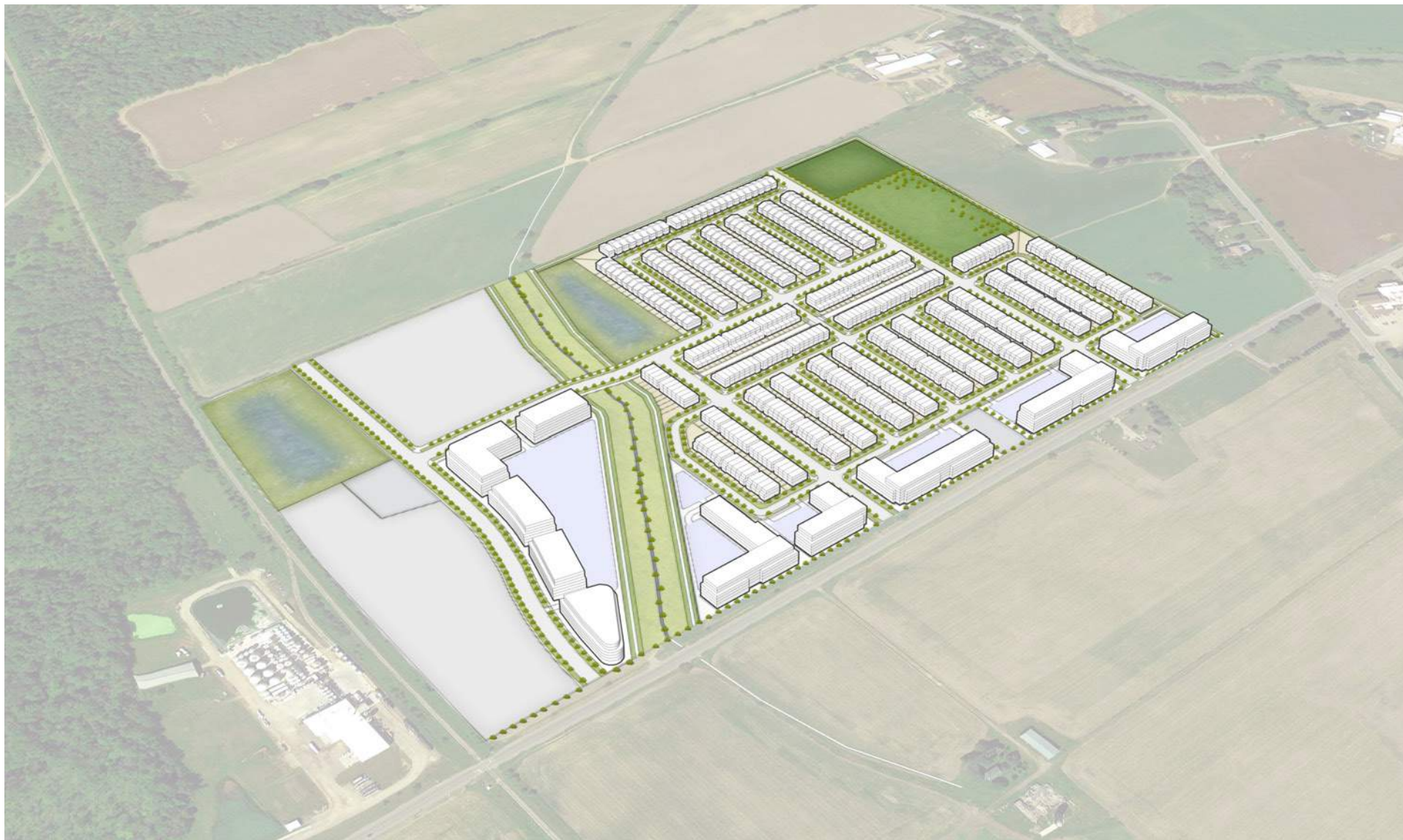
The Masterplan

Axonomic View Looking North



The Masterplan

Axonometric View Looking West





CACHET



BOUSFIELDS INC.

PLANNING | DESIGN | ENGAGEMENT



Attachment 4: Wilmot Land Needs Assessment (urbanMetrics)



TOWNSHIP OF WILMOT

Community Area Land Needs Analysis

Wilmot, Ontario

Prepared for **Cachet Development Partners Inc.**

December 20, 2021



This document is available in alternative formats upon request by contacting:

info@urbanMetrics.ca
416-351-8585 (1-800-505-8755)



December 20, 2021

Michael DeBiasio c/o
Cachet Development Partners Inc.
361 Connie Crescent – Suite 200
Concord, ON
L4K 5R2

Dear Michael:

RE: Township of Wilmot – Community Area Land Needs Analysis (Wilmot, Ontario)

urbanMetrics inc. is pleased to submit this Community Area Land Needs Analysis. The purpose of this study has been to forecast population, employment and household growth in the Township of Wilmot to 2051, based on the forecasts for the Region of Waterloo that are contained in Schedule 3 of the Growth Plan.

These growth forecasts have then been used to assess the need for a Settlement Area expansion in Wilmot to accommodate additional Community Area lands necessary to support market-based demand for housing to the 2051 horizon.

We appreciate the opportunity to conduct this assignment on your behalf and look forward to discussing the results of our report with you.

Yours truly,

A handwritten signature in black ink, which appears to read "Craig Ferguson". The signature is fluid and cursive, with a large, sweeping initial "C".

Craig Ferguson

Partner

cferguson@urbanMetrics.ca

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Executive Summary

urbanMetrics inc. has been retained by Cachet Development Partners Inc. (“Cachet”) to determine if there is a need for additional Community Area lands in the Township of Wilmot to support population growth to the 2051 planning horizon.

The purpose of this Community Area Land Needs Analysis is to identify the potential need for a Settlement Area boundary expansion in Wilmot to accommodate population and employment growth to 2051. This Community Area Land Needs Analysis is based on forecast market demand for housing, which is consistent with the approach identified in the *Land Needs Assessment Methodology for the Greater Golden Horseshoe (2020)*.

Wilmot Demographic and Market Profile

- The population growth rate in Wilmot has outpaced most other municipalities in Region of Waterloo over the past 20 years.
- The Region of Waterloo has seen significant net in-migration from municipalities in the GTA, likely due, in part, to the limited supply of ground-related housing (single-detached, semi-detached and row units) in GTA municipalities and increasing house prices, which is impacting affordability. By comparison, the Region of Waterloo is losing residents to neighbouring communities in the south and west, as these individuals search for more affordable ground-related housing.
- In addition to Wilmot residents working in Wilmot, a sizable share of residents also work in other Region of Waterloo municipalities. The strong employment growth anticipated to occur in the Region of Waterloo between 2021 and 2051 is likely to drive demand for housing in Wilmot.
- Wilmot has an outsized share of its population under the age of 15 and age 65 and over, in comparison to the Region and Province. Therefore, it will be important that Wilmot provide a broad range of housing types and tenures that appeal to each of these demographics.
- There has been very little new rental housing construction occurring in Wilmot, which has resulted in the share of households renting their dwelling declining from 18% to only 13% at the time of the 2016 Census. Therefore, the Township should look for opportunities to expand rental housing options in the municipality to help achieve policy 4.2.1 in the Township Official Plan.

Population, Employment and Household Growth in Wilmot

- urbanMetrics has prepared population, employment and household growth forecasts for Wilmot that are based on allocating the Region of Waterloo forecasts contained in Schedule 3 of the Growth Plan to the municipality.
- As employment growth is one of the strongest predictors of population and household growth, urbanMetrics has prepared population forecasts for Wilmot that are employment driven and based on the economic and demographic potential of the Township. Going forward, it is also anticipated that employment growth in neighbouring municipalities in the Region of Waterloo, as well as Perth County and Oxford County will be a key driver of population growth in Wilmot.
- Wilmot is forecast to have a total population of approximately 37,725 persons by 2051, representing growth of an estimated 15,300 persons over the 30-year period between 2021 and 2051, or about 510 persons per year. It is notable that the population growth forecasts result in a 2031 population of approximately 28,100 persons, which is generally in line with the forecasts contained within the Region of Waterloo Official Plan. Overall, by 2051, Wilmot is forecast to account for 4.1% of the population in the Region of Waterloo, which is only slightly higher than the 3.6% of Region-wide population that currently live in the Township.
- Applying age-specific headship rates to the population in private households results in growth of approximately 6,370 households between 2021 and 2051 in Wilmot, or approximately 210 new households per year.

Residential Land Supply in Wilmot

- There is an estimated June 1, 2021 housing unit supply approximately 1,850 units within the Settlement Areas of New Hamburg and Baden. Only 11% of the unit supply, or 204 units, are located within the built-up area. The limited supply of units within the built-up area could make achieving the 30% intensification target in the Wilmot Official Plan challenging.
- If Wilmot does not have a sufficient supply of units available within the built-up area to accommodate the intensification target, it could result in housing shortages and reduce affordability.

Community Area Land Needs in Wilmot

- **Based on the intensification and density target in the Wilmot Official Plan, the Township will require a Settlement Area boundary expansion of a minimum of 170 gross hectares of Community Area lands to meet the population and employment forecasts to 2051.**

- Meeting the 30% intensification target will require the construction of approximately 67 new apartment units per year between 2021 and 2051.
- Based on this analysis, it is possible that the expanded Community Area lands could achieve a density of 57 persons and jobs per hectare, which exceeds the target of 45 persons and jobs per hectare contained within the Township Official Plan.

Conclusion

Land owned by Cachet, which are located within the Countryside Line identified in Map 10 of the Township of Wilmot Official Plan provide an opportunity to expand the Settlement Area boundary to accommodate growth.

It is our understanding that Cachet is proposing to accommodate seniors housing, purpose-built rental housing and affordable housing (either rental or ownership) on its lands located outside of the existing Settlement Area boundary of New Hamburg. Therefore, expanding the Settlement Area boundary to accommodate these lands will help in achieving other policy objectives contained within Section 4.2.1 of the Township of Wilmot Official Plan, including providing a full range and mix of housing types, tenures and densities, as well as Section 4.2.2, by providing for the development of affordable housing.

2.0 Introduction

urbanMetrics inc. (“urbanMetrics”) has been retained by Cachet Development Partners Inc. (“Cachet”) to determine if there is a need for additional Community Area lands in the Township of Wilmot (“Wilmot” or the “Township”) to support population growth to the 2051 planning horizon.

2.1 Purpose

The Region of Waterloo is currently in the process of completing their Municipal Comprehensive Review (MCR) that will, in part, allocate population and employment growth to Wilmot and other Region of Waterloo municipalities to 2051, based on population and employment forecasts contained in Schedule 3 of *A Place to Grow; Growth Plan for the Greater Golden Horseshoe* (the “Growth Plan”).

The purpose of this Community Area Land Needs Analysis is to identify the need for a Settlement Area boundary expansion in Wilmot to accommodate population and employment growth to 2051. This Community Area Land Needs Assessment is based on forecast market demand for housing, which is consistent with the approach identified in the *Land Needs Assessment Methodology for the Greater Golden Horseshoe (2020)*, hereafter referred to as the LNA Methodology.

2.2 Approach

The following section describes the major work tasks undertaken by urbanMetrics in carrying out this Community Area Land Needs Analysis. The scope of work has been divided into the following categories:

- **Demographic and Market Profile:** To contribute towards an understanding of market demand for housing, we have prepared a comprehensive economic and demographic analysis of current trends in Wilmot. This has included a review of the demographic characteristics of the population in Wilmot, migration trends, propensities to live in various forms of housing, and commuting trends.
- **Market Demand for Housing:** Based on these demographic and market trends, as well as the Region of Waterloo population and employment forecasts contained in Schedule 3 of the Growth Plan, we have forecast population and employment growth in Wilmot. Based on the LNA Methodology, we have translated this population growth into market demand for housing in Wilmot to 2051.
- **Housing Supply:** We have determined the available supply of unbuilt units within the Urban Area boundary of New Hamburg and Baden. This land supply considers all known applications for residential units within the current Settlement Area boundaries that is estimated to be

available as of June 1, 2021, as well as vacant lands not under application but designated for residential uses.

- **Community Area Land Needs:** Taking into consideration intensification targets and the Designated Greenfield Area (DGA) density targets contained within the Township of Wilmot Official Plan, we have compared market demand for housing in Wilmot to the available supply of unbuilt units to determine the future need for Community Area lands to the 2051 planning horizon.

2.3 Assumptions

There are several underlying and basic assumptions upon which the validity of the analysis and findings presented in this report depend. Based on our considerable experience as land economists, we recognize and appreciate the problems associated with making broad and generalized assumptions about future market conditions. Undoubtedly, deviations from historic and current trends will take place in the future. However, core assumptions are required to determine the extent of such deviations. The assumptions used in the preparation of this report are summarized below.

- While this study was prepared during the COVID-19 global pandemic, our projections assume the return of reasonable economic stability in the Province of Ontario and the Township of Wilmot. However, there are emerging signs that the pandemic could have lasting implications on the geospatial distribution of employment.
- The official statistical sources utilized in our analysis (based largely on Statistics Canada, the Census of Canada and Canada Mortgage and Housing Corporation (CMHC), which have been noted where utilized) are considered sufficiently accurate for the purposes of our analysis.

If for any reason major changes occur in the marketplace which would influence the basic assumptions stated above, the recommendations and/or conclusions in this report should be reviewed in light of circumstances and revised, if necessary.

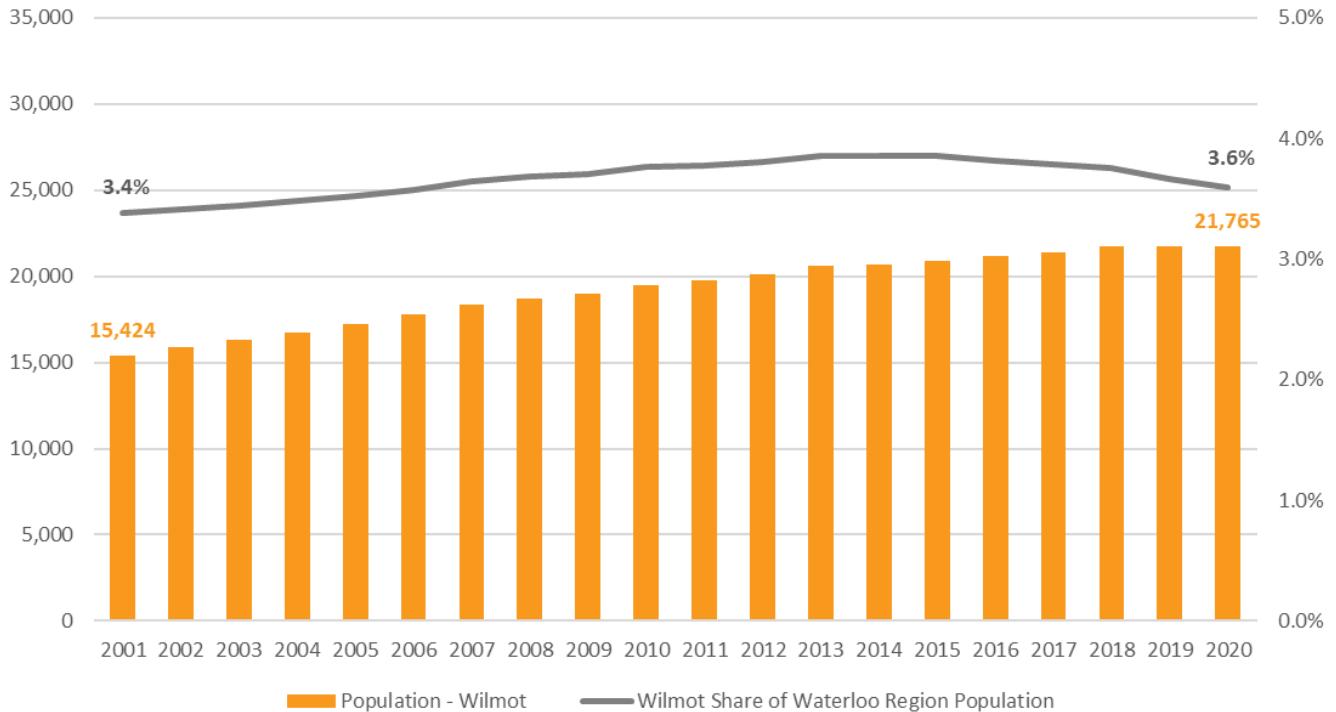
3.0 Demographic and Market Profile

Key Findings

- The population growth rate in Wilmot has outpaced most other municipalities in Region of Waterloo over the past 20 years.
- The Region of Waterloo has seen significant net in-migration from municipalities in the GTA, likely due, in part, to the limited supply of ground-related housing (single-detached, semi-detached and row units) in GTA municipalities and increasing house prices, which is impacting affordability. By comparison, the Region of Waterloo is losing residents to neighbouring communities in the south and west, as these individuals search for more affordable ground-related housing.
- In addition to Wilmot residents working in Wilmot, a sizable share of residents also work in other Region of Waterloo municipalities. The strong employment growth anticipated to occur in the Region of Waterloo between 2021 and 2051 is likely to drive demand for housing in Wilmot.
- Wilmot has an outsized share of its population under the age of 15 and age 65 and over, in comparison to the Region and Province. Therefore, it will be important that Wilmot provide a broad range of housing types and tenures that appeal to each of these demographics.
- There has been very little new rental housing construction occurring in Wilmot, which has resulted in the share of households renting their dwelling declining from 18% to only 13% at the time of the 2016 Census. Therefore, the Township should look for opportunities to expand rental housing options in the municipality to help achieve policy 4.2.1 in the Township Official Plan.

3.1 Population Growth

The Township of Wilmot has accounted for a growing share of the population in the Region of Waterloo over the past 20 years. As shown in Figure 3-1, Wilmot's share of population in the Region has grown from 3.4% in 2001 to 3.6% in 2020. Over this period, the population in Wilmot grew at an average annual rate of 2.2%, which was faster than the Regional average (1.7%) and the second fastest rate of population growth among Region of Waterloo municipalities, behind only Woolwich.

Figure 3-1: Total Population in Wilmot, 2001-2020

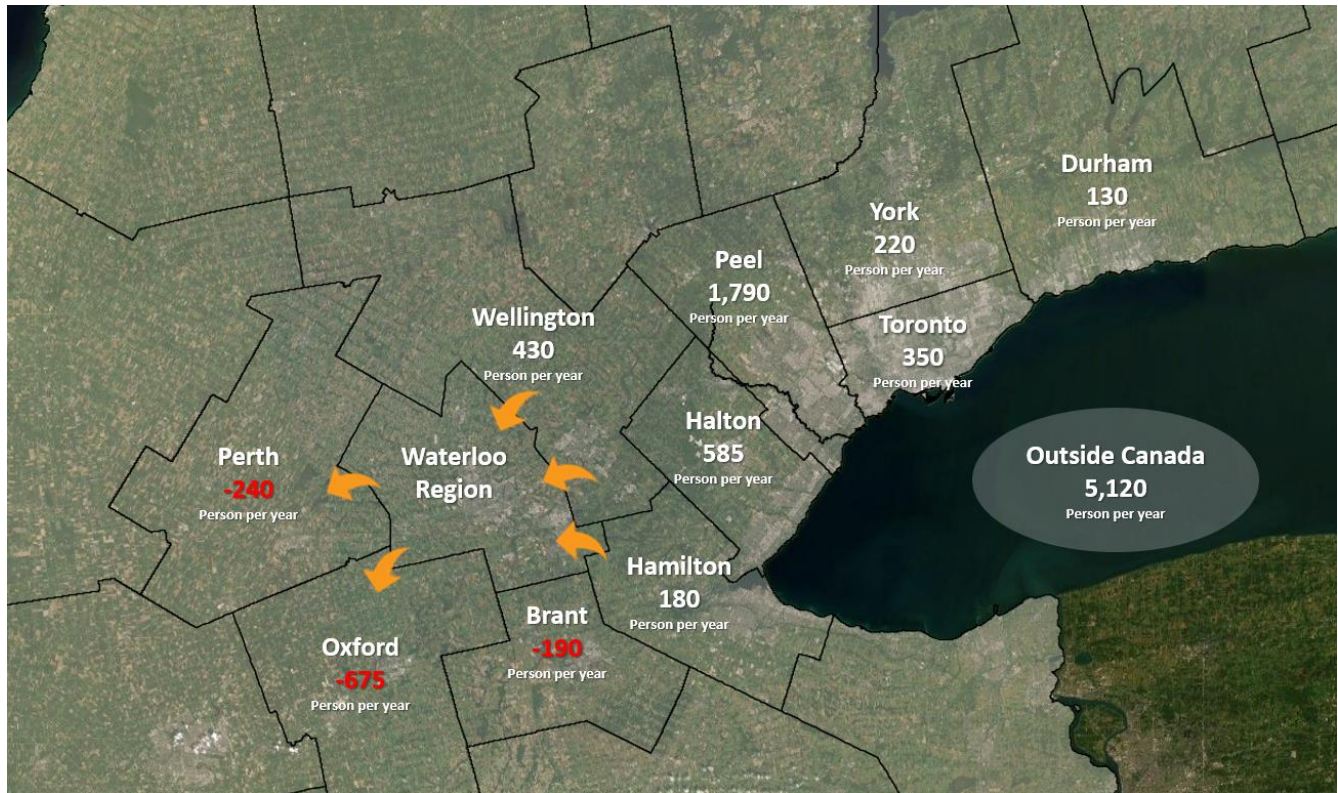
SOURCE: urbanMetrics inc. based on Statistics Canada Annual Demographic Estimates.

The primary source of population growth in the Region of Waterloo has been net in-migration from Outside Canada and from Greater Toronto Area (“GTA”) municipalities.

There is an obvious pattern that emerges when looking at migration trends between Census Divisions in the Greater Golden Horseshoe (“GGH”). As shown in Figure 3-2, there is strong net in-migration to the Region of Waterloo from Census Division in the east, such as Peel Region, Halton Region, Wellington County, the City of Toronto and York Region. On average, there is net positive migration of 3,075 persons per year from municipalities in the GTA to the Region of Waterloo.

In fact, the pace of net in-migration to the Region of Waterloo from GTA municipalities has actually accelerated in recent years. The stronger migration to the Region of Waterloo is likely due, in part, to the limited supply of ground-related housing (single-detached, semi-detached and row units) in the GTA and increasing house prices, which is impacting affordability.

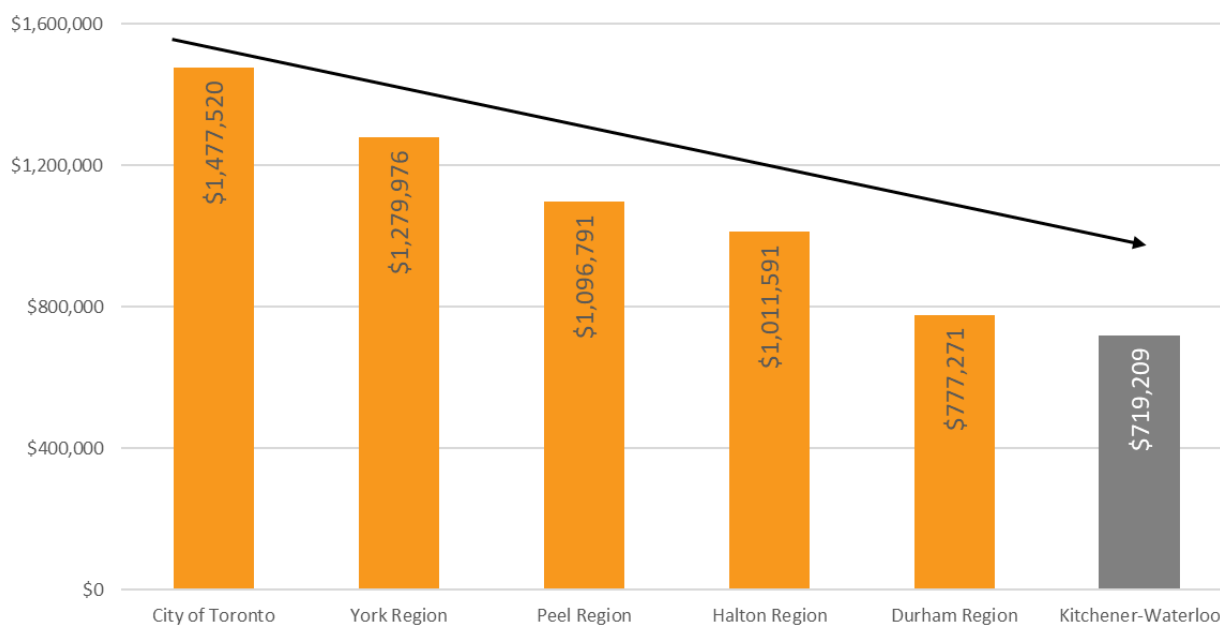
There is also positive net migration of 5,120 person per year from outside Canada to the Region of Waterloo, with a large part of this migration consisting of students attending post-secondary institutions.

Figure 3-2: Average Annual Net Migration with Region of Waterloo

SOURCE: urbanMetrics inc. based on Statistics Canada Tax Filer Migration Data, 2014 to 2019.

Another pattern that emerges in Figure 3-2 is net out-migration from the Region of Waterloo to Census Divisions in the south and west. As shown, on average there was a net outflow of population from the Region of Waterloo to Perth County, Oxford County and Brant County.

Net migration trends in the Region of Waterloo are likely being driven, in large part, by house prices. Figure 3-3 summarizes existing home sale prices for single-detached units in the City of Toronto, York Region, Halton Region, Peel Region, Durham Region and the Region of Waterloo in 2020. As shown, in City of Toronto, York Region, Halton Region and Peel Region, the average price of a single-detached unit was over \$1,000,000. This is in comparison to the Region of Waterloo, where the average single-detached house price was \$720,000. Therefore, net migration out of the GTA to the Region of Waterloo likely reflects people being priced-out of these jurisdictions or looking to unlock equity by moving to a lower-priced municipality.

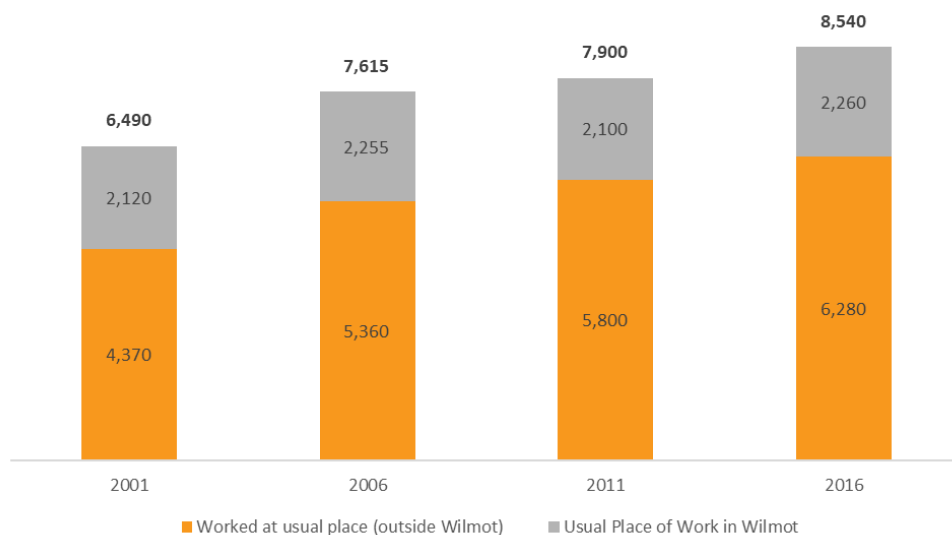
Figure 3-3: Average Single-Detached Existing Home Price, 2020

SOURCE: urbanMetrics inc. based on Toronto Regional Real Estate Board data and Kitchener-Waterloo Real Estate Board.

3.2 Commuting Trends

In addition to Wilmot residents working in Wilmot, a sizable share of residents also work at a location outside of the municipality. Data from the Census of Canada indicates that nearly 3 out of 4 Wilmot residents (74%) with a usual place of work, work outside of the municipality. The number of Wilmot residents with a usual place of work that worked outside the municipality has grown from 4,370 person in 2001 to 6,280 persons in 2016 (Figure 3-4). This growth in Wilmot residents with a usual place of work outside of the municipality reflects the proximity of the municipality to jobs in the cities of Kitchener and Waterloo.

As shown in Figure 3-4, at the time of the 2016 Census, over 5,015 Wilmot residents work in a Waterloo Region municipality (excluding Wilmot). There were also 355 Wilmot residents working in Perth County and 205 working in Oxford County.

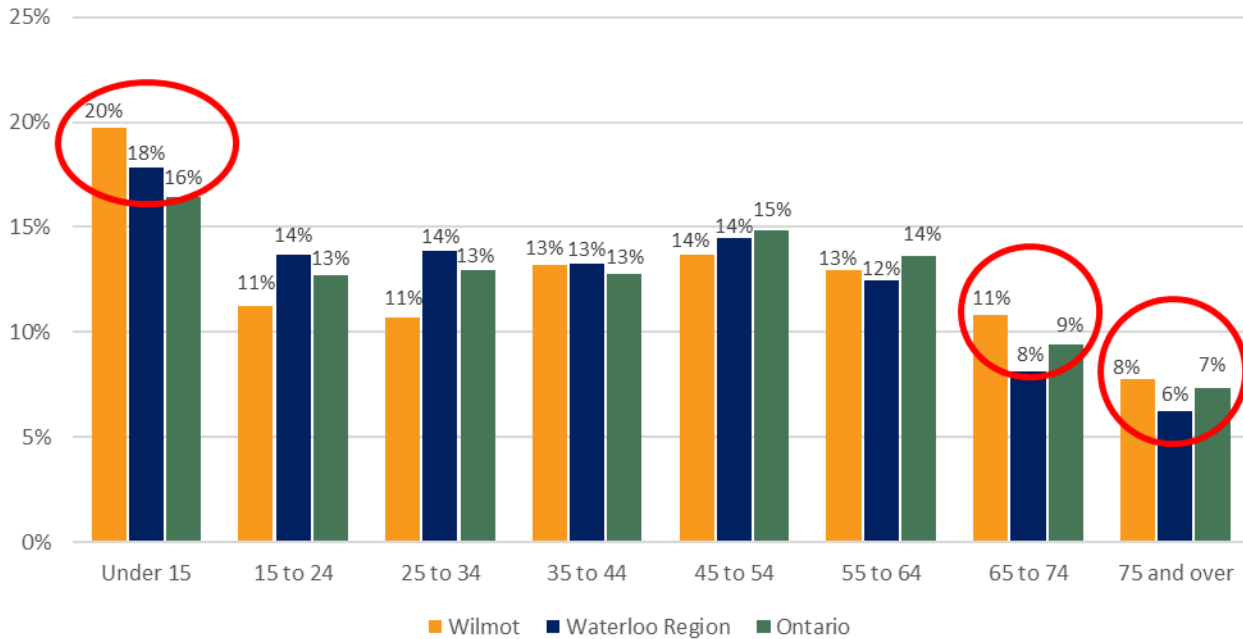
Figure 3-4: Wilmot Residents with a Usual Workplace Address by Location of Work

	2001	2006	2011	2016
Waterloo Region (excluding Wilmot)	3,625	4,275	4,890	5,015
City of Guelph	95	160	120	175
Perth County	235	325	110	355
Oxford County	130	150	270	205
All Other Municipalities	285	450	410	530
Total	4,370	5,360	5,800	6,280

SOURCE: urbanMetrics inc. based on Census of Canada.

3.3 Demographic and Household Profile

Figure 3-5 summarizes the share of the population by age group in the Township of Wilmot, in comparison to the Region of Waterloo and the Province. As shown, in comparison to the Region of Waterloo, Wilmot has a higher share of children under the age of 15 and also a larger share of its population age 65 and over. Therefore, it will be important for the Township to provide a range of housing options that appeal to each of these demographics. For example, couples with children at home tend to live in ground-related housing, while people age 65 and over have a higher propensity to live in apartment units.

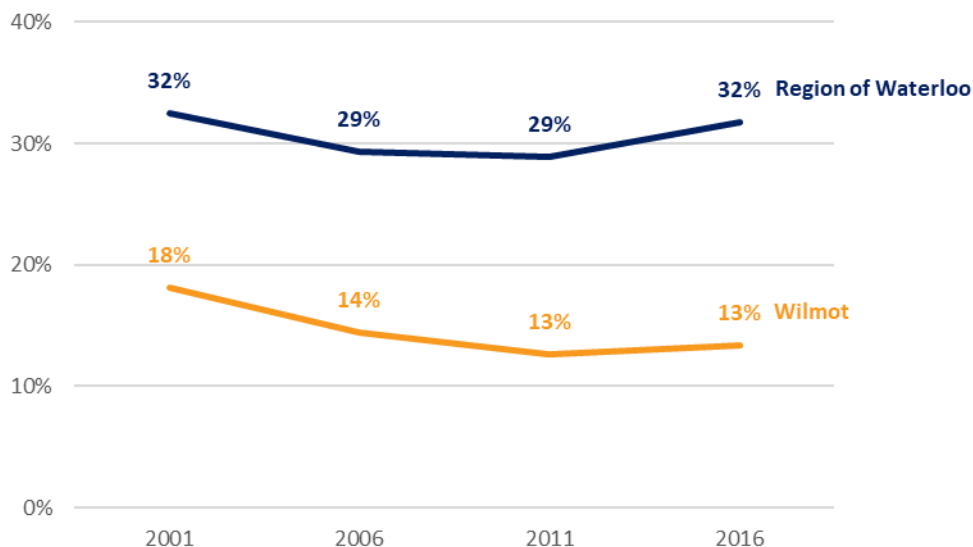
Figure 3-5: Population by Age Group, 2016

SOURCE: urbanMetrics inc. based on 2016 Census of Canada.

Figure 3-6 summarizes the share of households that rent their dwelling. As shown, over the 15-year period between 2001 and 2016 the share of households that rent their dwelling in Wilmot has declined from 18% of households to only 13% of households. This is in comparison to the Region of Waterloo, where 32% of households rent their dwelling, a share that is unchanged from 2001.

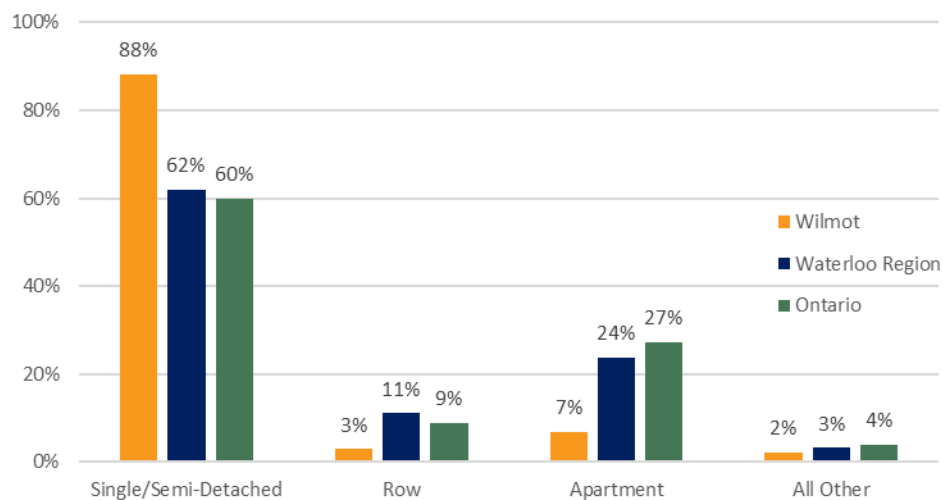
Based on data from the Canada Mortgage and Housing Corporation (CMHC), there are only 465 purpose-built rental row and apartment units in the Township of Wilmot. In 2020, CMHC reported that the vacancy rate for purpose-built rental row and apartment units was only 1.4%. By comparison, the CMHC considers a vacancy rate of 3% to be indicative of a balanced rental market, which indicates that Wilmot has a tight rental market. The tight rental market in Wilmot has resulted in significant growth in average monthly rent. CMHC reports that between 2017 and 2020, the average monthly rent in Wilmot has increased by 13.5%.

Therefore, it will be important that new rental units are developed in Wilmot to accommodate its growing population. This is consistent with Section 4.2.1 of the Township of Wilmot Official Plan, which identifies that the Township will provide a full range and mix of housing types, tenures and densities in order to accommodate the needs of current and future residents.

Figure 3-6: Share of Renter Households

SOURCE: urbanMetrics inc. based on Census of Canada (various years).

Figure 3-7 summarizes the share of households by dwelling type in the Township of Wilmot, in comparison to the Region and Province. As shown, 88% of households in Wilmot resided in single-detached units at the time of the 2016 Census, which significantly exceeded the Regional and Provincial average. There was also a very small share of households in apartment units in comparison to the Regional and Provincial average. The lack of apartment units in Wilmot will impact the ability of the Township to house its large and growing seniors population. There is clear evidence that people over the age of 65 have a higher propensity to live in apartment units. The lack of apartment housing in Wilmot will result in seniors either staying in their existing single-detached housing unit longer than they desire or moving out of Wilmot to find apartment units, neither of which are desirable outcomes.

Figure 3-7: Share of Households by Type of Dwelling

SOURCE: urbanMetrics inc. based on 2016 Census of Canada.

While Wilmot has a number of seniors-oriented communities that support seniors who can live independently, there is only one seniors residence with 97 beds that provides assisted living and long-term care options in Wilmot. The large and growing share of the population in Wilmot age 65 and over will require the development of additional seniors housing facilities to support these existing and new residents.

4.0 Market Demand for Housing

Key Findings

- As employment growth is one of the strongest predictors of population and household growth, urbanMetrics has prepared population forecasts for Wilmot that are employment driven and based on the economic and demographic potential of the Township. Going forward, it is also anticipated that employment growth in neighbouring municipalities in the Region of Waterloo, as well as Perth County and Oxford County will be a key driver of population growth in Wilmot.
- Wilmot is forecast to have a total population of approximately 37,725 persons by 2051, representing growth of an estimated 15,300 persons over the 30-year period between 2021 and 2051, or about 510 persons per year. It is notable that the population growth forecasts result in a 2031 population of approximately 28,100 persons, which is generally in line with the forecasts contained within the Region of Waterloo Official Plan. Overall, by 2051, Wilmot is forecast to account for 4.1% of the population in the Region of Waterloo, which is only slightly higher than the 3.6% of Region-wide population that currently live in the Township.
- Applying age-specific headship rates to the population in private households results in growth of approximately 6,370 households between 2021 and 2051 in Wilmot, or approximately 210 new households per year.

4.1 Land Needs Methodology

The following section summarizes the LNA Methodology and the components necessary to forecast Community Area land needs, where the LNA Methodology defines Community Areas as:

Areas where most of the housing required to accommodate the forecasted population will be located, as well as most population-related jobs, most office jobs and some employment land employment jobs. Community areas include delineated built-up areas and designated greenfield areas.

The methodology used in this report in determining if additional Community Area lands are required to accommodate population and employment growth in Wilmot to 2051 is consistent with Section 2.0 Community Area Land Needs Assessment of the LNA Methodology.

The land needs assessment for the Community Areas is divided into six (6) components in the LNA Methodology. These components are as follows:

1. Population Forecasts

2. Housing Need
3. Allocation of Housing Needs
4. Housing Supply Potential by Policy Areas
5. Community Area Jobs
6. Need for Additional Land

Components 1 through 3 will be addressed in Section 4.0 of this report, while Component 4 will be addressed in Section 5.0. Finally, Component 5 and 6 will be addressed in Section 6.0 of this report.

4.2 Forecast Employment Growth

As employment growth is one of the strongest predictors of population and household growth, urbanMetrics has prepared population forecasts for Wilmot that are employment driven and based on the economic and demographic potential of Wilmot and neighbouring municipalities. The number of employed persons in Wilmot can be broken down into five discrete components, including persons:

- Working from home;
- Working outside Canada;
- With not fixed workplace address;
- Working at a usual workplace address within Wilmot; and,
- Working at a usual workplace address outside Wilmot.

The following paragraphs highlight key assumptions that have been relied upon in forecasting the number of employed residents in Wilmot to the year 2051.

Work From Home Employment

In 2016, 5.2% of Wilmot residents worked at home. This share is slightly lower than the average share of the Wilmot residents that reported working from in the 2001, 2006 and 2011 Census. In forecasting the number of Wilmot residents that will work from home in the future, we have assumed a constant 5.2% share of the population in Wilmot will work at home to 2051. We consider this assumption to be very conservative.

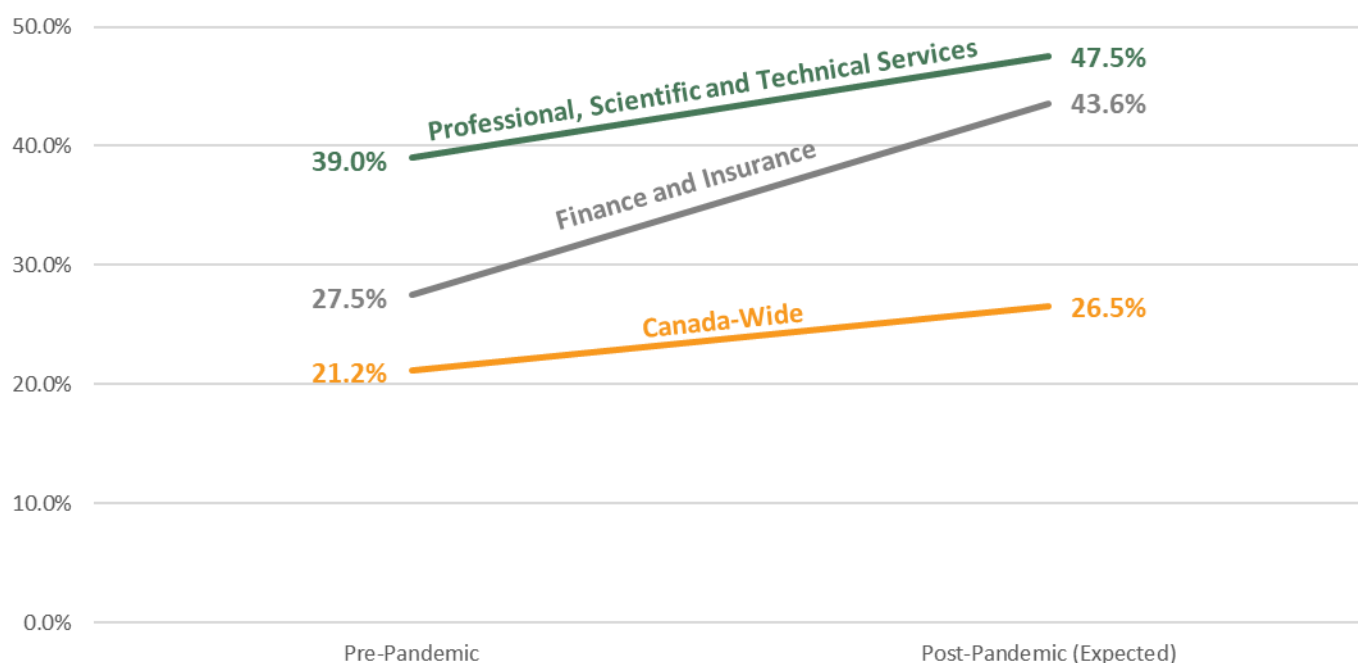
COVID-19 has resulted in a dramatic shift towards people working from home, a trend which is likely to be sustained after the pandemic ends. Figure 4-1 shows the results from a recent survey conducted by Statistics Canada, which analyzed teleworking/remote working trends before and during the pandemic, as well as expected adoption of teleworking/remote working after the pandemic ends.

This survey found that post-pandemic, a growing share of companies are likely to see a portion of their workforce teleworking or working remotely, in comparison to before the pandemic. As shown in Figure 4-1, Canada-wide, the number of companies with a portion of their workforce teleworking or

working remotely could rise from 21% of companies pre-pandemic to almost 27% post-pandemic. This shift is even larger for office-type jobs, such as Professional, Scientific and Technical Services, as well as Finance and Insurance.

A permanent shift to teleworking or working remotely could increase demand for housing in Wilmot based on its proximity to employment in the cities of Waterloo and Kitchener, as well as GTA municipalities.

Figure 4-1: Percentage of Companies with a Share of Workforce Teleworking or Working Remotely



SOURCE: urbanMetrics inc. based on data from Statistics Canada.

Working Outside Canada

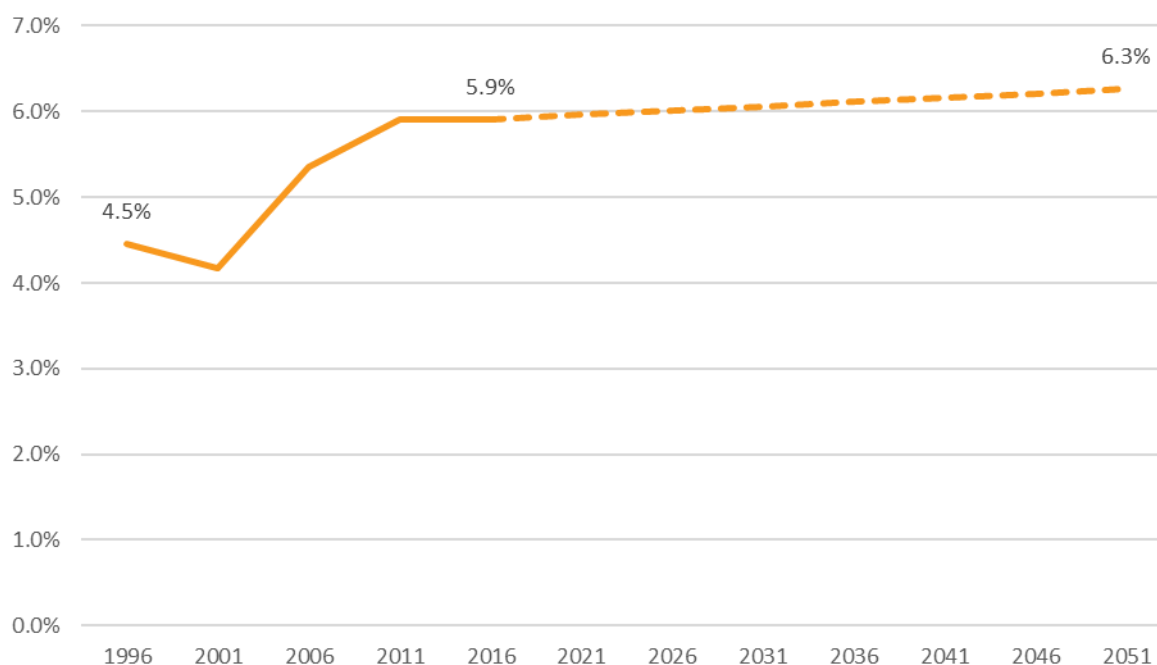
The number of Wilmot residents that reported working outside Canada has generally been unchanged over the last two decades. In forecasting employment growth in Wilmot, we have assumed no growth in the number of Wilmot residents working outside Canada.

No Fixed Workplace Address

The number of Wilmot residents reporting to have no fixed workplace address has grown in the past two decades. As shown in Figure 4-2, the share of Wilmot residents with no fixed workplace address

has growth from 4.5% in 1996 to 5.9% in 2016, or growth of about 0.1% per year. urbanMetrics has forecast that the share of the population in Wilmot with no fixed workplace address will reach 6.3% of the population by 2051, which is equivalent to continued growth of about 0.1% per year.

Figure 4-2: Share of Population with No Fixed Workplace Address



SOURCE: urbanMetrics inc.

Usual Place of Work in Wilmot

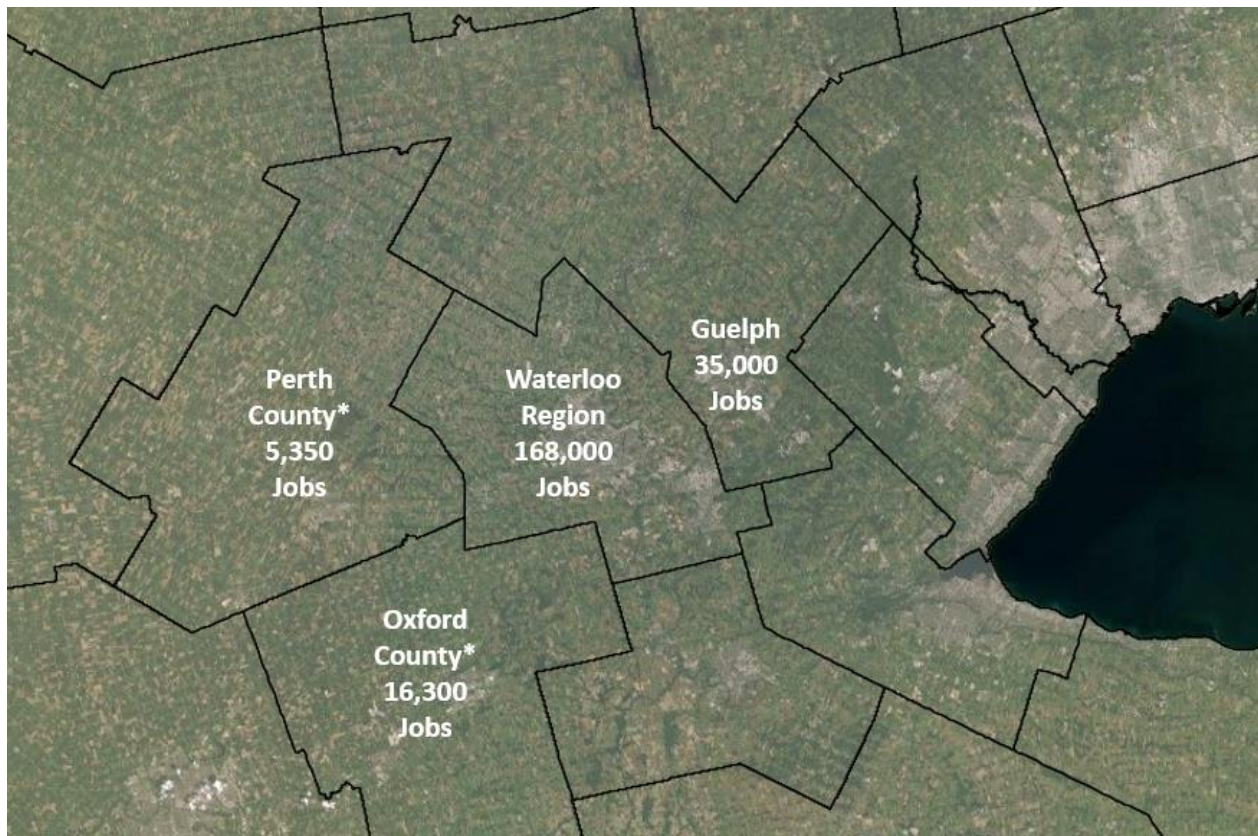
To determine the number of jobs in Wilmot, we have relied, in part on the Region of Waterloo 2051 employment forecasts contained in Schedule 3 of the Growth Plan, the *Greater Golden Horseshoe: Growth Forecasts to 2051*, prepared by Hemson Consulting and employment forecasts contained in the *Township of Wilmot Development Charges Background Study*, May 15, 2019, also prepared by Watson & Associates Economists Ltd. (“Watson”).

Based on these forecasts, urbanMetrics has estimated there will be approximately 3,410 new Employment Land Employment (ELE), Population-Related Employment (PRE) and Rural Area jobs in Wilmot between 2021 and 2051. Approximately 40% of these jobs, or 1,390 jobs, will be filled by people living in Wilmot.

Usual Place of Work Outside Wilmot

The population forecasts prepared by urbanMetrics for Wilmot are based, in part, on the 2051 employment forecasts contained in Schedule 3 of the Growth Plan and the Municipal Comprehensive Reviews being completed by other local municipalities. As shown in Figure 4-3, significant employment growth is forecast to occur in Waterloo Region and surrounding municipalities. As noted earlier in this Community Area Land Needs Analysis, a large and growing share of Wilmot residents commute to jobs elsewhere in Waterloo Region, the City of Guelph, Perth County, and Oxford County. Therefore, strong employment growth in these areas is likely to result in a greater number of Wilmot residents commuting to work in these municipalities. These commuting trends will result in greater demand for housing in Wilmot.

Figure 4-3: Employment Growth 2021-2051



* Growth in Perth County and Oxford County is for the 2021-2046 period.

SOURCE: urbanMetrics inc. based on Schedule 3 of the Growth Plan and *Greater Golden Horseshoe: Growth Forecasts to 2051*, prepared by Hemson Consulting; *Official Plan Update – Comprehensive Review Perth County*, April 21, 2020, prepared by Watson & Associates Economists Ltd.; and *Phase One Comprehensive Review Oxford County*, March 2020, prepared by Hemson Consulting.

urbanMetrics has examined growth between 2001 and 2016 in the number Wilmot residents working in each of these surrounding municipalities, as a share of total employment growth in these municipalities. To forecast the number of Wilmot residents that will work in these municipalities in the future, we have held these shares constant. For example, the number of Wilmot residents commuting to a usual place of work in Perth County increased by 120 persons between 2001 and 2016. These 120 persons represented 5.7% of total employment growth in Perth between 2001 and 2016 (approximately 2,110 jobs). In forecasting growth in the number of Wilmot residents that would commute to Perth County in the future, we have assumed that they will represent 5.7% of Perth County employment growth.

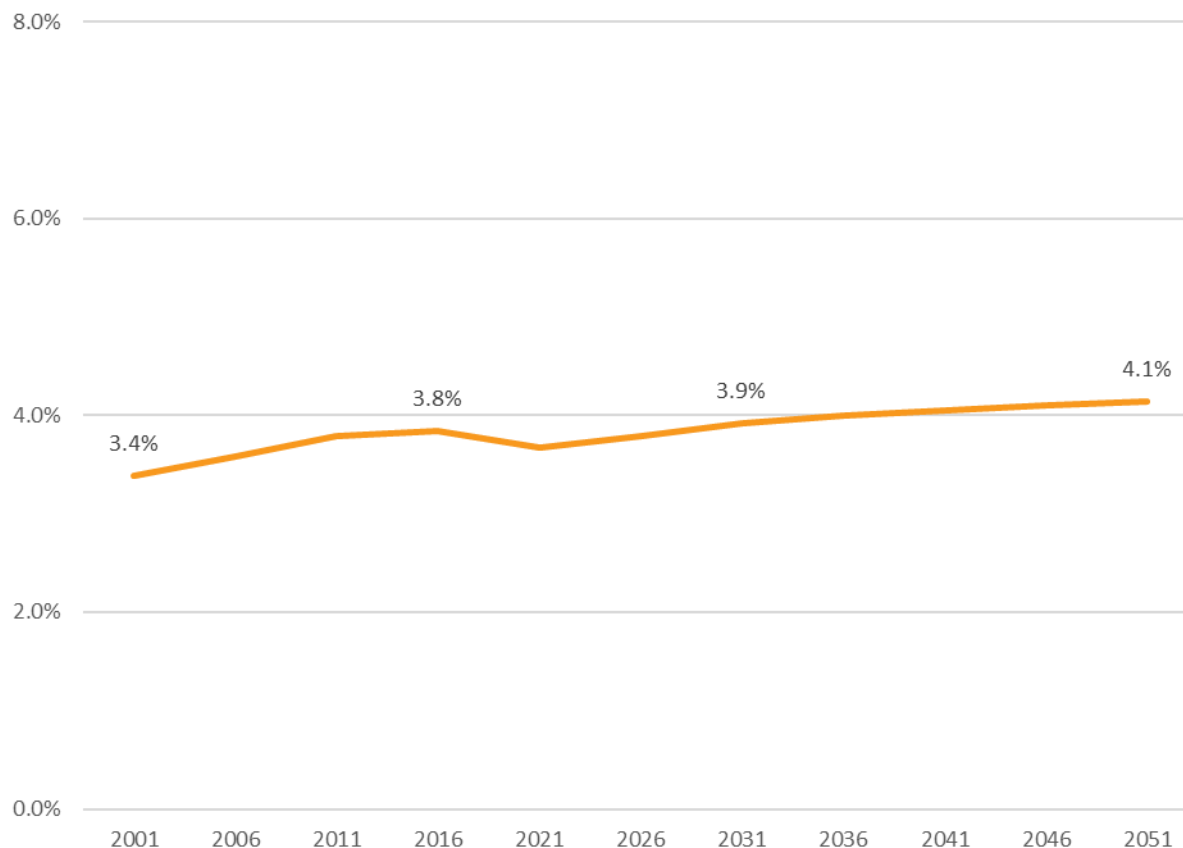
Therefore, population growth in Wilmot reflects forecast employment growth within Wilmot, as well as forecast employment growth in neighbouring municipalities.

4.3 Forecast Population Growth

The employment growth forecasts have been utilized to allocate forecast population growth in Schedule 3 of the Growth Plan to the Township of Wilmot. To forecast population growth by age group we have utilized the cohort survival methodology, which takes into consideration area-specific fertility rates, mortality rates and net migration by age group. These assumptions are used to determine the natural increase in the population (births minus deaths) and net migration.

Based on the Wilmot employment growth forecast, we have forecasted total population of approximately 37,725 persons in Wilmot by 2051, representing growth of 15,300 persons over the 30-year period between 2021 and 2051, or about 510 persons per year.

It is notable that the population growth forecasts result in a 2031 population of approximately 28,100 persons, which is generally in line with the 2031 population forecasts for Wilmot contained in Table 1 of the Region of Waterloo Official Plan. As shown in Figure 4-4, by 2051 Wilmot is forecast to account for 4.1% of the population in the Region of Waterloo, up from 3.6% in 2020, according to the Statistics Canada Annual Demographic Estimates. Over the past 25 years, Wilmot has been accounting for a growing share of population in the Region of Waterloo. Therefore, the population forecast in Wilmot to 2051 is generally consistent with these past trends.

Figure 4-4: Wilmot Share of Region of Waterloo Population

SOURCE: urbanMetrics inc.

4.4 Forecast Household Growth

To forecast household growth, we have applied age-specific headship rates to the forecast population in private households. Based on our review, age-specific headship rates have been relatively stable in Wilmot in most age groups over the past two decades, aside from the 15 to 24 age group, where headship rates have declined. In forecasting household growth in Wilmot, we have held headship rates constant in all age groups.

We have also estimated 2021 headship rates based on housing construction activity reported by CMHC. Applying these age-specific headship rates to the population in private households results in growth of approximately 6,370 households between 2021 and 2051 in Wilmot.

To forecast household growth by dwelling type, we utilized housing type propensities by age group from the Census of Canada between 2001 and 2016, and made adjustments to account for escalating

house prices, which will result in greater demand for medium-density housing, as low-density housing becomes less affordable.

The household growth forecasts by dwelling type are summarized in Figure 4-5. As shown, low-density units are expected to account for the largest share of household growth by dwelling type in Wilmot between 2021 and 2051, followed by apartment units.

Figure 4-5: Household Growth by Dwelling Type

	2016	2021	2026	2031	2036	2041	2046	2051	Growth 2021- 2051
Low-Density	6,520	6,862	7,421	8,118	8,659	9,072	9,348	9,560	2,698
Medium-Density	208	224	527	745	991	1,270	1,565	1,897	1,673
High-Density	647	661	1,027	1,305	1,603	1,934	2,277	2,659	1,998
Total	7,375	7,747	8,975	10,169	11,254	12,275	13,189	14,116	6,369
Ground Related	6,728	7,085	7,948	8,864	9,650	10,342	10,913	11,457	4,371
Apartment	647	661	1,027	1,305	1,603	1,934	2,277	2,659	1,998

SOURCE: urbanMetrics inc.

The household growth forecasts in Figure 4-5 result in approximately 212 new households per year in Wilmot over the 30-year period between 2021 and 2051. It is also important to note that these household growth forecasts do not include a market contingency factor or other mitigating factors, both of which are identified as appropriate adjustments in the LNA Methodology. If any of these factors were included, it would further increase the demand for housing in Wilmot.

5.0 Housing Supply

Key Findings

- There is an estimated June 1, 2021 housing unit supply approximately 1,850 units within the Settlement Areas of New Hamburg and Baden. Only 11% of the unit supply, or 204 units, are located within the built-up area. The limited supply of units within the built-up area could make achieving the 30% intensification target in the Wilmot Official Plan challenging.
- If Wilmot does not have a sufficient supply of units available within the built-up area to accommodate the intensification target, it could result in housing shortages and reduce affordability.

An estimate of housing supply in Wilmot has been prepared, based in part on information available from the Township of Wilmot Development Applications Listings web portal and confirmed through discussions with Township staff.

As part of this land supply analysis, urbanMetrics has also identified vacant lands within the Settlement Areas of New Hamburg and Baden that are designated and zoned for residential development, but do not have a formal application. The purpose of this analysis was to identify lands that are available to accommodate household growth to 2051.

In addition to categorizing units by development status (i.e. registered, draft approved, pending, vacant no application), we have also identified whether units are located within the built-up area or in the Designated Greenfield Area (DGA).

A summary of the unit supply is shown in Figure 5-1. As shown, there is an estimated June 1, 2021 unit supply of 1,849 units within the two Settlement Areas in Wilmot. Approximately 11% of these units are located within the built-up area and will therefore contribute towards the intensification target. However, it is notable that the current intensification target included within the Wilmot Official Plan is 30%. Therefore, for the Township to achieve this intensification target, it will require significant redevelopment of underutilized parcels located throughout the municipality.

The LNA Methodology provides direction on how to address a shortfall in the intensification unit potential, where it states:

Should the potential supply of units in the delineated built-up area be insufficient to meet the intensification target, municipalities can use this analysis as the basis for their request for an alternative target that will be appropriate given the size, location and capacity of the delineated built-up area.

Therefore, there is the potential that the intensification target for Wilmot could be adjusted downwards as part of the ongoing MCR.

Figure 5-1: Estimated Unit Supply by Development Status, June 1, 2021

	Low-Density	Medium-Density	High-Density	Total
Unit Supply in Built-Up Area				
Registered	0	10	0	10
Draft Approved	3	3	123	129
Proposed Applications	0	63	2	65
Total Unit Supply in the Built-up Area	3	76	125	204
Unit Supply in Greenfield Area				
Registered	8	0	0	8
Draft Approved	0	0	12	12
Proposed Applications	634	357	32	1,023
Vacant Lands Not Under Application	297	305	0	602
Total Unit Supply in the Designated Greenfield Area	939	662	44	1,645
Total Units	942	738	169	1,849
Share of Units within the Built-up Area	0%	10%	74%	11%

SOURCE: urbanMetrics inc. based on discussions with Township staff and Township of Wilmot Development Applications webpage.

6.0 Residential Land Needs

Key Findings

- Based on the intensification and density target in the Wilmot Official Plan, the Township will require a Settlement Area boundary expansion of at least 170 gross hectares of Community Area lands to meet the population and employment forecasts to 2051.
- Meeting the 30% intensification target will require the construction of approximately 67 new apartment units per year between 2021 and 2051.
- Based on this analysis, it is possible that the expanded Community Area lands could achieve a density of 57 persons and jobs per hectare, which exceeds the target of 45 persons and jobs per hectare contained within the Township Official Plan.

The following section addresses Components 5 and 6 of the LNA Methodology for the Community Areas land needs assessment in Wilmot based on the existing intensification and DGA density target. However, it is important to note that there is the potential for the intensification target to be lowered through the ongoing MCR due to a shortage of intensification opportunities within the existing built-up area.

Therefore, this policy-based Community Area land needs assessment identifies the minimum amount of land required to accommodate the 2051 population forecast. That being said, as there are very few intensification opportunities in Wilmot, this policy-based approach will likely result in housing shortages which could have an impact on affordability.

In preparing this policy-based land needs assessment, we have started by allocating 0.2% of household growth to the Rural Areas of the municipality. The allocation of 0.2% of household growth to the Rural Areas is consistent with the approach utilized in the *Development Charges Background Study, Township of Wilmot*.¹ 2017 Residential Land Budget completed by Watson & Associates Economists Ltd. Based on this approach, we have assumed household growth of 13 units in the Rural Area of the municipality. These units are all expected to be single-detached, as shown in Figure 6-1.

¹ *Development Charges Background Study, Township of Wilmot*, May 15, 2019, prepared by Watson & Associates Economists Ltd.

Figure 6-1: Market-Based Household Growth Allocation by Policy Area

Policy Area	Low-Density	Medium-Density	High-Density	Total
Rural Area	13	0	0	13
<i>Rural Area Unit Mix</i>	<i>100%</i>	<i>0%</i>	<i>0%</i>	<i>100%</i>
Built-up Area	3	76	1,832	1,911
<i>Built-Up Area Unit Mix</i>	<i>0%</i>	<i>4%</i>	<i>96%</i>	<i>100%</i>
Designated Greenfield Area	2,682	1,597	166	4,446
<i>Built-Up Area Unit Mix</i>	<i>60%</i>	<i>36%</i>	<i>4%</i>	<i>100%</i>
Total	2,698	1,673	1,998	6,369

SOURCE: urbanMetrics inc.

The next step in the land needs assessment has been to allocate household growth to the built-up area of the municipality. Based on the 30% intensification target included in the Township of Wilmot Official Plan, 1,911 units would need to be accommodated within the built-up area between 2021 and 2051, based on total household growth of 6,369 units, as identified earlier in Figure 4-5.

In allocating these units to the built-up area, we have relied on the land supply summarized previously in Figure 5-1. This land supply analysis identified 79 low and medium-density units in approved/active applications. For the purposes of this analysis, we have assumed that the balance of household growth, 1,832 units, will be accommodated within apartment units in the built-up area. This is equivalent to the construction of nearly 61 apartment units per year over the 30-year period.

As shown at the bottom of Figure 6-1, the remaining 4,446 housing units would be accommodated within the DGA. Within the DGA, it is forecast that 60% of units would be low-density, with 36% of units being medium-density and 4% of units being high-density. This unit mix is generally consistent with the split of units under application with the DGA, as summarized earlier in Figure 5-1.

Figure 6-2 compares the demand for units in the DGA to the estimated supply, which was summarized previously in Figure 5-1. As shown, based on this approach, there is a shortfall of 1,743 low-density units, 935 medium-density units and 122 high-density units. These additional units will need to be accommodated through a Settlement Area boundary expansion.

Figure 6-2: Market-Based Surplus/(Shortfall) of Units in the Designated Greenfield Areas

	Low-Density	Medium-Density	High-Density	Total
DGA Household Growth 2021 to 2051	2,682	1,597	166	4,446
DGA Unit Supply Potential	939	662	44	1,645
Surplus / (Shortfall) in DGA Units	(1,743)	(935)	(122)	(2,801)

SOURCE: urbanMetrics inc.

Figure 6-3 assess the Settlement Area boundary expansion that would be required to accommodate the shortfall of 2,801 units to 2051. As shown, net densities are applied to the shortfall in residential units. These densities are based on an assessment of recent residential development applications across Wilmot. The net densities in Figure 6-3 only include developable residential lands and exclude road allowances, parks, institutional and commercial lands.

A net to gross ratio of 55% is then applied to the DGA land need to determine gross Community Area land needs. This gross land need includes lands for roads, parks, institutional and commercial uses. As shown, based on this market-based scenario, Wilmot will require an expansion of 170 gross hectares to accommodate Community Area land needs to 2051.

Figure 6-3: Market-Based Community Area Settlement Boundary Expansion

	Low-Density	Medium-Density	Apartment	Total
DGA Unit Surplus / (Shortfall)	(1,743)	(935)	(122)	
Density Factor (Units Per Net Hectare)	25.0	39.0	101.0	
DGA Land Need (Net Hectares)	69.7	24.0	1.2	93.7
Net to Gross Ratio				55%
DGA Community Area Land Need (Gross Hectares)				170

SOURCE: urbanMetrics inc.

Based on the direction in the LNA Methodology, a density has been calculated to determine if the market-based approach achieves the DGA density target of 45 residents and jobs per hectare identified in Section 2.5.3.3 a) of the Township of Wilmot Official Plan.

As shown, based on forecast PPUs, the Community Area Settlement Expansion has the potential to accommodate 8,154 persons. The expansion area is also estimated to accommodate 1,605 jobs, which includes Population-Related Employment (PRE) and work at home jobs. The PRE job estimate is based on the existing ratio of approximately 1 PRE job per 7 residents, while the work at home employment estimate assumes that 5.2% of the population work at home, which is consistent with the existing ratio in the Township.

As shown, under the policy-based scenario, the expanded Community Area would achieve a density of 57 residents and jobs per hectare, which is higher than the density of 45 residents and jobs per hectare identified in the Wilmot Official Plan.

Figure 6-4: Market-Based Density Calculation for Community Area Settlement Expansion

	Low-Density	Medium-Density	Apartment	Total
Settlement Area Expansion Unit Mix	1,743	935	122	
PPU	3.21	2.50	1.88	
Residents	5,588	2,335	230	8,154
Jobs				1,605
Residents and Jobs				9,759
Density (Residents and Jobs Per Hectare)				57

SOURCE: urbanMetrics inc.

Overall, as shown, under the policy-based scenario, based on the existing intensification and DGA density targets included in the Township of Wilmot Official Plan, the municipality would need to expand its Settlement Area boundary by a minimum of 170 gross hectares to accommodate growth to 2051 and avoid housing shortages.

7.0 Conclusions

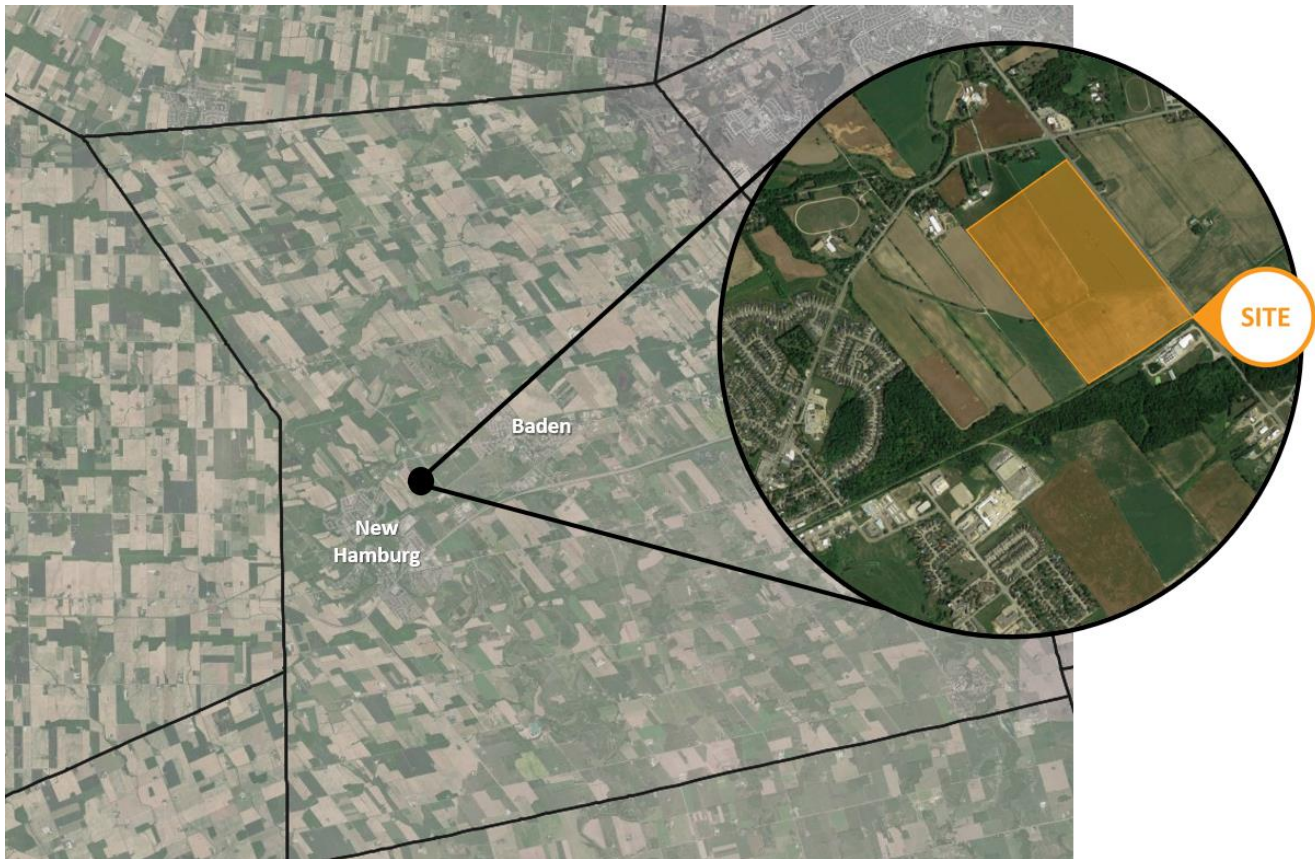
7.1 Community Area Land Need in Wilmot

As detailed in this Township of Wilmot Community Land Needs Analysis, a Settlement Area boundary expansion of 170 gross hectares will be required to accommodate forecasted population and employment growth to 2051.

The expansion of at least 170 gross hectares is based on the intensification and DGA density targets contained in the Township of Wilmot Official Plan. However, as outlined in Section 5.0 of this report, the Township does not have a sufficient supply of vacant residential lands within the built boundaries to meet the 30% intensification target. Therefore, achieving the intensification target will require the development of vacant sites not currently under application and the redevelopment of underutilized sites located throughout the built-up area of New Hamburg and Baden.

7.2 Opportunities for Settlement Area Boundary Expansions

Land owned by Cachet, which are approximately 40 hectares and located within the Countryside Line identified in Map 10 of the Township of Wilmot Official Plan provide an opportunity to expand the Settlement Area boundary to accommodate growth. The location of the subject site within Wilmot is shown in Figure 7-1. As shown, the lands are directly to the east of the New Hamburg Settlement Area boundary.

Figure 7-1: Subject Site Location

SOURCE: urbanMetrics inc. based on ArcGIS online.

Cachet has expressed an interest in bringing the subject site into the New Hamburg Settlement Area as part of the ongoing MCR. It is our understanding that the lands owned by Cachet will accommodate 1,200 to 1,500 dwelling units at full build-out in a mix of low-density, medium-density and high-density dwellings.

7.3 Achieving Official Plan Policy Objectives

It is our understanding that Cachet is proposing to accommodate seniors housing, purpose-built rental housing and affordable housing (either rental or ownership) on its lands located outside of the existing Settlement Area boundary of New Hamburg. Therefore, expanding the Settlement Area boundary to accommodate the Cachet lands will help in achieving other policy objectives contained within Section 4.2.1 of the Township of Wilmot Official Plan, including providing a full range and mix of housing types, tenures and densities, as well as Section 4.2.2, by providing for the development of affordable housing.

Attachment 5: Engineering Technical Memo (Walter Fedy)

TECHNICAL MEMO

To:	Cachet Development Partners Inc.	Project No.:	2021-0754-10	Date:	December 8, 2021
Subject:	Preliminary Servicing Overview	Project:	1265 and 1299 Waterloo Street, New Hamburg		
		From:	Matt Ninomiya, MBA, P. Eng.		

The intent of this memo is to provide commentary on the servicing and grading of the lands municipally known as 1265 and 1299 Waterloo Street in New Hamburg. The subject lands abut the railway tracks to the south, Nafziger Road to the east, agricultural lands to the west, and agricultural and residential lands immediately to the north. The northernmost limits of the subject lands with frontage onto Waterloo Street were severed in 2021 and are not part of this study.

Drainage and Stormwater Management

The subject lands are bisected by the Ivan Gingerich Municipal Drain, which drains the subject lands westerly and ultimately to the Nith River. The existing topography and drainage patterns are illustrated on Figure 1.

It is understood that there are backwater effects on lands to the west ("F2" and "G2") in the Ivan Gingerich Municipal Drain, immediately upstream of Waterloo Street, due to an existing culvert which creates flooding conditions on those areas. It is anticipated that through development of lands to the west, a new road may be constructed to allow for a connection to Waterloo Street however flooding conditions may remain.

The subject lands will drain to two stormwater management facilities, one immediately to the north and to the south of the Ivan Gingerich Municipal Drain. The stormwater management facilities will control post- to pre-development flows per the current Grand River Conservation Authority (GRCA) and Ministry of the Environment, Conservation and Parks (MECP) standards.

Wastewater

The wastewater servicing strategy for the subject lands involves fully utilizing existing and proposed infrastructure to the extent possible. This strategy involves extending servicing to gravity limits and not restricting servicing to Planning limits and land use designations. The subject lands are identified in the Wastewater Servicing Study for New Growth Areas - Baden and New Hamburg (Conestoga-Rovers & Associates, June 2014) as part of parcels "L" and "M". Based on the current servicing strategy for development in New Hamburg, a trunk sewer is proposed to be extended through the employment lands known as Parcel "N1" immediately north of Highway 7/8, extending under the railway tracks, and to parcels "F2" and "G2". Based on existing topography, parcels "W1", "M2", "L2", "G2", and "F2" are within the Ivan Gingerich Municipal Drain catchment and drain in a westerly direction and can be serviced via the "N1" employment lands trunk sewer. As such, the extension of the proposed trunk sanitary sewer through Parcel "N1" to service the aforementioned parcels fully utilizes proposed and existing infrastructure while minimizing sewer depths and construction costs.

It is recognized that Parcels "L2" and "M2" are not currently identified within the Designated Greenfield Areas (DGA); however, from a wastewater servicing perspective, they are the logical extension of the proposed DGA immediately to the west. Additional impacts of inclusion of these lands are also identified within the Water and Transportation sections of this memo.

The expected wastewater flows from Parcels "L2" and "M2" are summarized in the attached Preliminary Sanitary Sewer Design Sheet and graphically shown on Figure 2. Based on Water and Wastewater Monitoring Report (Region of Waterloo, June 2021), there is capacity to service approximately 10,400 additional people in the Baden/New Hamburg Wastewater Servicing area as of December 31, 2020. Based on the projected population from the DGA and infill development, an additional population of approximately 4,200 is anticipated. As such, sufficient wastewater capacity is available in the Baden/New Hamburg Wastewater Servicing area.

Water

The subject lands are proposed to tie into the existing 300-mm-diameter watermain on Nafziger Road as well as the proposed development to the west. It is recognized that existing development further west is comprised of local streets with a 150-mm-diameter watermain. In order to loop the watermain and provide water quality as well as fire flows for a mix of higher-density development as required, a connection and extension of a larger watermain loop is anticipated. The connection to Nafziger Road provides the necessary connections and looping to the existing watermain network.

It is understood that water pressures fed from the Baden water tower are strong and assist with ensuring sufficient fire flows are available for the subject lands and the proposed development lands immediately to the west. Providing a watermain loop through the subject lands and through the adjacent lands provides the redundancy that is desired for water servicing.

Transportation

As part of developing the subject lands, a road network connecting the community is required. The subject lands would provide multiple road connections to Nafziger Road and to the proposed development and existing community to the west. Providing the connection between the existing and the new communities will assist in creating linkages of the various forms of transportation (active transportation via trails and vehicular transportation) to form a complete community.

As noted in the Drainage and Stormwater Management section, lands to the west are expected to potentially have backwater effects due to the existing culvert under Waterloo Street. As such, providing road connections through the subject lands to Nafziger Road from the existing community and proposed development to the west provides redundancy for access in emergency situations.

Grading

The subject lands will be graded such that the lands drain to proposed stormwater management facilities and ultimately to the existing Ivan Gingerich Municipal Drain. The lands have topography which is efficient for servicing. The existing surrounding grading will be matched through a cut-to-fill balance on site.

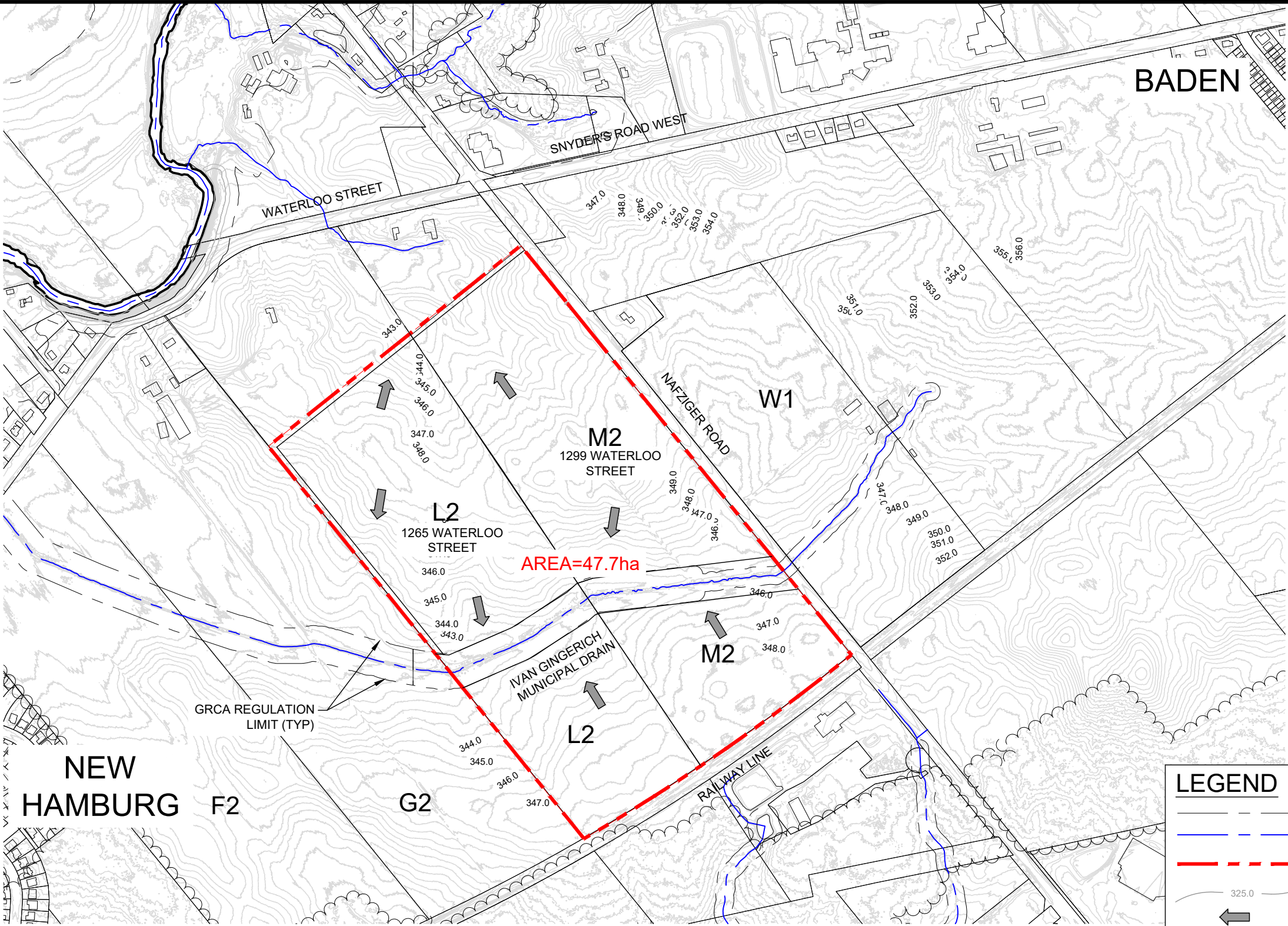
Conclusions

Based on the discussion in this memo, it is concluded that:

- The subject lands can be adequately serviced through both existing and planned infrastructure (sanitary, storm, and watermain).
- Wastewater servicing through the “N1” employment lands for lands north of the railway is the most efficient use of existing and proposed infrastructure, minimizes sewer depths, and subsequently construction costs.
- There is sufficient wastewater capacity in the Baden/New Hamburg wastewater system.
- The subject lands provide linkages for all forms of transportation within the greater community.

From a servicing perspective, the subject lands ties well into the existing and proposed infrastructure to create a complete community.

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LEGEND

GRCA REGULATORY LIMIT

GRCA WATERCOURSE

PROPERTY LIMITS

325.0

EXISTING CONTOUR

OVERLAND FLOW DIRECTION

PROJECT:
1265 & 1299 WATERLOO STREET, NEW HAMBURG

TITLE:
EXISTING TOPOGRAPHY

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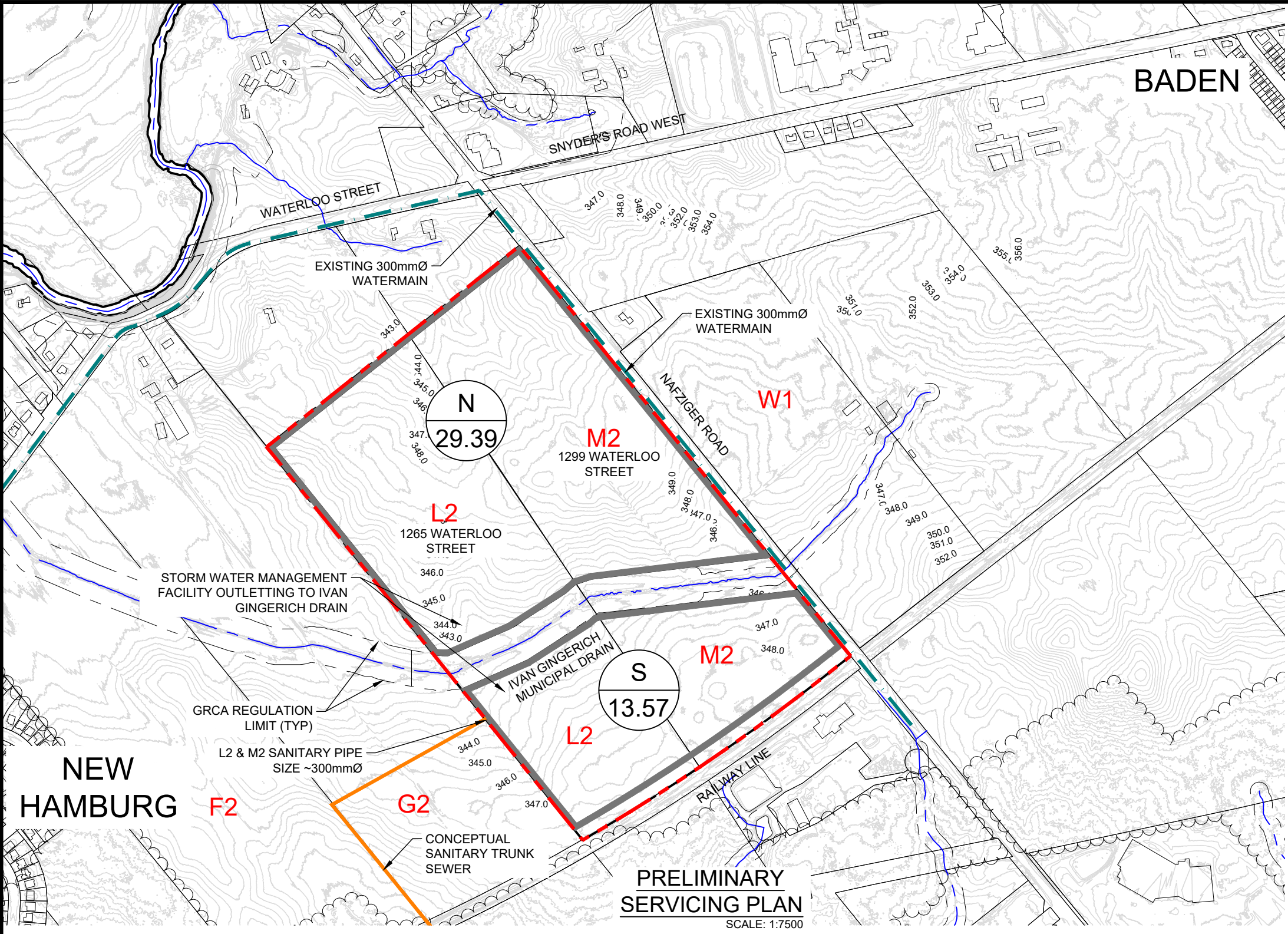
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675 Queen Street South, Suite 111, Kitchener, Ontario N2M 1A1
T: 519.576.2150 F: 519.576.5499 walterfedy.com

SCALE: 1:7500	DATE: 2021-12-07
DRAWN BY: KDB	PROJECT NO.: 2021-0754-10
CHECKED BY: MN	FILE: 2021-0754-10_C-Overall_EX_F

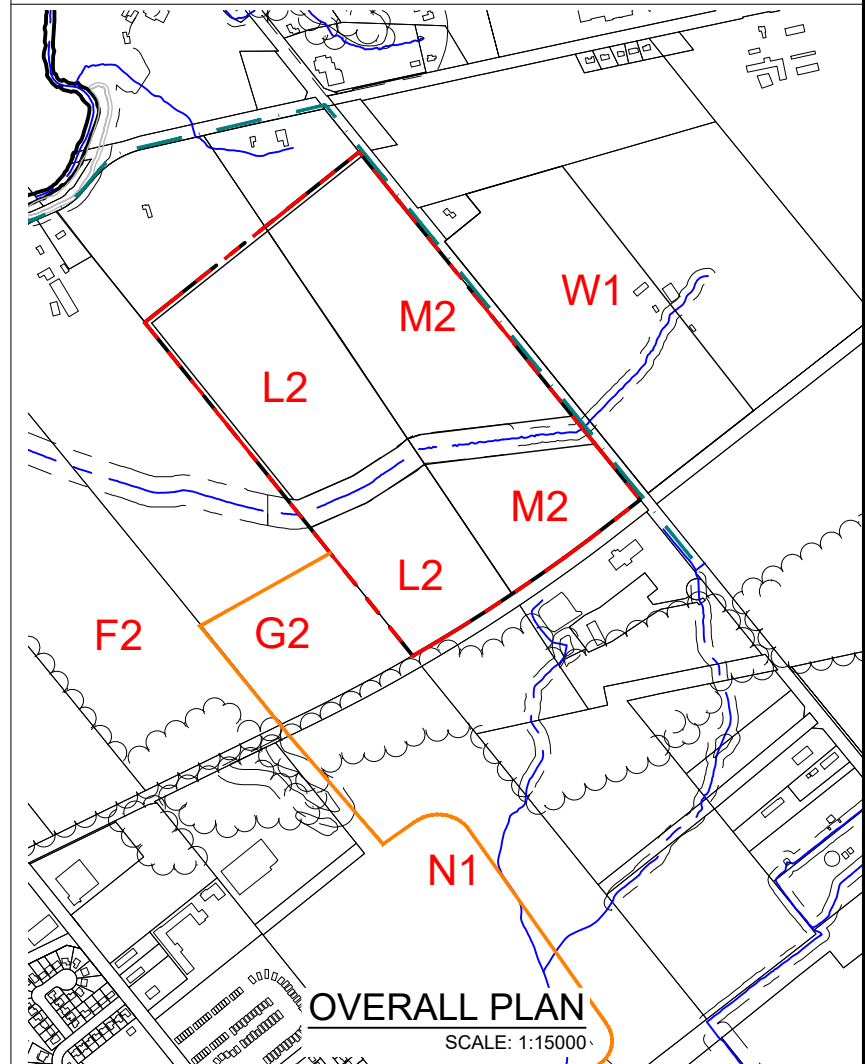
SHEET NO.:

FIG 1.0



LEGEND

- EXISTING WATERMAIN
- SANITARY TRUNK SEWER
- SANITARY DRAINAGE AREA
- AREA ID
- AREA IN HECTARES
- GRCA WATERCOURSE
- PROPERTY LIMITS
- EXISTING CONTOUR



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PROJECT:
1265 & 1299 WATERLOO STREET, NEW HAMBURG

TITLE:
PRELIMINARY SERVICING PLAN

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DRAWN BY: KDB	PROJECT NO.: 2021-0754-10
CHECKED BY: MN	FILE: 2021-0754-10_C-Overall_San

SHEET NO.:
FIG 2.0

Project: Project No: Date: Designed By:	Project Name			Min. Velocity	Design Data		m/s	Houses Townhouses Apartments	3p/unit 2.4p/unit 1.77p/unit	SANITARY SEWER DESIGN CALCULATIONS																					
	2021-0745-10				0.60					Residential					Commercial																
	2021-12-22				4.5					Peaking Factor					Peaking Factor																
	2021-12-22				m/s					Harmon					2.5																
KDB			Checked By:	MN	Manning's 'n'	0.013		l/s/ha	Avg. Daily Flow	275 L/d/p		Avg. Daily Flow	0.5 L/s/ha																		
			Infiltration	0.25																											
Pipe Data				Residential						Cumulative				Commercial			Total C+I+I Flow (L/s)	Infiltration			Total Flow (L/s)	Design Data				Q _w /Q _c %					
From		To	Length (m)	Area (ha)	Houses	Townhouses	Apartments	Density p/ha	Population (people)	Area (ha)	Population (people)	Peak Factor	Peak Flow (L/s)	Area ID	Area (ha)	Total Area (ha)		Area (ha)	Total Area (ha)	Infiltration Flow (L/s)		Diameter (mm)	Slope (%)	Q _{FULL} (L/s)	V _{FULL} (m/s)						
West of Nafziger Road				31	32	10.0	21.73						143	3108	21.73	3108	3.43	33.924		16.13	16.13	20.163	37.86	37.86	9.465	63.551	300	0.50	0.07	0.97	92.9%

Attachment 6: Transportation Brief (Paradigm)



5A-150 Pinebush Road
Cambridge ON N1R 8J8
p: 519.896.3163
905.381.2229
416.479.9684

www.ptsl.com

10 December 2021
Project: (210726)

Marcus Gagliardi
Development Planner
Cachet Development (NH) Inc.
361 Connie Crescent, Suite 200
Concord, ON L4K 5R2

**RE: MIXED-USE DEVELOPMENT, NAFZIGER ROAD, NEW HAMBURG,
TRANSPORTATION BRIEF**

Paradigm Transportation Solutions Limited (Paradigm) has been retained to prepare this transportation brief for the 43 hectare proposed development on the west side of Nafziger Road, south of Waterloo Street, in New Hamburg, On.

The purpose of this letter is to determine the forecast available capacity on Nafziger Road as the surrounding area is built out, to review the proposed spacing of the proposed new street connections on Nafziger Road, and to provide recommendation for future consideration as detailed design proceeds.

Concept Plan

The proposed concept plan (**Figure 1**) includes residential, employment, and commercial uses. The initial phase includes 1,200 to 1,500 residential units in a mix of senior's apartments, affordable units, market apartments, townhouses, and singles. Future phases of development include a transit hub and mixed-use/employment area at the south end of the site, connecting to the existing rail line. The concept plan proposes three new municipal intersection connections to Nafziger Road.

The trip generation of the site has been estimated using information contained in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual*.¹ Land Use Codes (LUC) 210, 220, 221, 223, and 253 have been used to reflect the trip generation of the different residential uses.

¹ ITE. *Trip Generation Manual (10th Edition)*. Washington, D.C. September 2017.

Table 1 summarizes the trip generation estimates based on the maximum unit numbers and indicates the site is forecast to generate 559 new trips in the AM peak hour and 677 new trips in the PM peak hour.

TABLE 1: ESTIMATED TRIP GENERATION

ITE Land Use	Units		AM Peak Hour			PM Peak Hour		
	Min	Max	In	Out	Total	In	Out	Total
210 - Single-Family, Detached Housing	100	150	27	78	105	89	52	141
220 - Multifamily Housing, Low-Rise	300	400	35	112	147	122	71	193
221 - Multifamily Housing, Mid-Rise	300	350	33	109	142	84	53	137
223 - Affordable Housing	50	50	8	20	28	14	9	23
221 - Multifamily Housing, Mid-Rise	350	400	38	126	164	95	61	156
253 - Congregate Care Facility	100	150	8	5	13	17	14	27
Total Trip Generation	1,200	1,500	149	450	599	421	260	677

Nafziger Road

Nafziger Road is designated as an arterial road in the Region of Waterloo Official Plan². The TAC *Geometric Design Guide for Canadian Roads*³ (TAC Guide) dictates that an arterial road can accommodate up to 20,000 vehicles per day.

Existing weekday peak hour volumes at the intersection of Nafziger Road and Waterloo Street were collected by Paradigm in 2018 and are included in **Appendix A**. A 1.5% growth rate was applied to these volumes to achieve base year (2021) volumes. This growth rate is consistent with other TIS reports prepared for the area. Based on this data the existing vehicles per day along Nafziger Road, south of Waterloo Street, is in the order of 5,500 vehicles per day (approximated at PM volumes x10). This suggests that there is spare capacity along this section of Nafziger Road under base year conditions.

2026 Forecast Traffic

Several background developments are planned for the surrounding area including approximately two million square feet of industrial development and approximately 700 residential units. Each of these will use Nafziger Road to access Highway 7/8. Trip generation was estimated based on anticipated land use.

2026 forecast background traffic volumes were estimated by applying a 1.5% growth rate to the base year volumes on Nafziger Road, south of Waterloo Street, and adding the traffic generated by the surrounding area developments. This results in a forecast 10,500 vehicles per day, comprised of 6,000 vehicles per day in forecast background traffic and 4,500 vehicles per day in forecast background development traffic. This suggests that there is capacity along Nafziger Road, while maintaining its intended function as an arterial road.

² Region of Waterloo Official Plan, 2015, Kitchener, ON

³ Transportation Association of Canada. June 2017. *Geometric Design Guide for Canadian Roads*. Ottawa, ON.



The estimated site traffic results in an additional 7,000 vehicles per day on this segment of Nafziger Road for a 2026 forecast total traffic volume of 17,500 vehicles per day.

The intersection of Highway 7/8 and Nafziger Road has been identified by the Ministry of Transportation for upgrade to a ramp terminal. The ultimate design of the interchange has not been determined but will ultimately provide additional capacity at this intersection.

Access Spacing

The concept plan proposes three new street connections to Nafziger Road. The north connection is approximately 320 metres south of the intersection with Waterloo Street. The central connection is approximately 240 metres south of the north connection. The south connection is approximately 300 metres south of the central connection and 130 metres north of the existing rail line.

The TAC Manual dictates that new intersections along an arterial road must be spaced a minimum of 200 metres apart and that 30 metres of separation is required between an at-grade rail crossing and an intersection. All proposed street connections meet these minimum requirements.

Conclusions

Based on the investigations carried out, it is concluded that:

- ▶ The proposed development concept contains 1,500 residential units and is forecast to generate approximately 599 AM and 677 PM peak hour trips;
- ▶ Under based year conditions, Nafziger Road carries an estimated 5,500 vehicles per day, which is below the threshold of 20,000 vehicles per day for an arterial road;
- ▶ The combination of 2026 forecast background traffic volumes and forecast background development volumes results in approximately 10,500 vehicles per day
- ▶ The addition of the 2026 site generated traffic adds an additional estimated 7,000 vehicles per day for a forecast total 17,500 vehicles per day along Nafziger Road.
- ▶ The three proposed new street connections to Nafziger Road are spaced to meet the requirements as dictated by the TAC manual for intersection spacing on an arterial and spacing from an at-grade rail crossing.

Future Considerations

As the planning proceeds, consideration should be given to the following:

- ▶ **Signalization or roundabout at the central access.** Given the proximity to the highway it is likely that there will be a high number of northbound left-turning and eastbound right-turning vehicles at this intersection. Appropriate traffic control will need to be assessed.



- ▶ **Storage lane between rail crossing and south access.** The southern intersection is 130 metres north of the at-grade rail crossing. This meets the minimum required spacing (30 metres); however, consideration will need to be given to a possible left-turn storage lane and associated taper at this intersection and that more space may be required to accommodate the taper without crossing the rail tracks.
- ▶ **Ultimate cross-section of Nafziger Road.** With the build-out of the surrounding area and the increased demand on Nafziger Road, consideration will need to be given to the ultimate cross-section, potential for lowering posted speed limit, urbanization, or widening.

Recommendations

Based on the investigations carried out it is recommended that a comprehensive Transportation Impact Assessment be carried out at the subdivision approval application stage to determine the detailed impact to the nearby intersections, the ultimate traffic control at the proposed new intersections, and the future cross-section and design elements along this segment of Nafziger Road.

Yours very truly,

PARADIGM TRANSPORTATION SOLUTIONS LIMITED

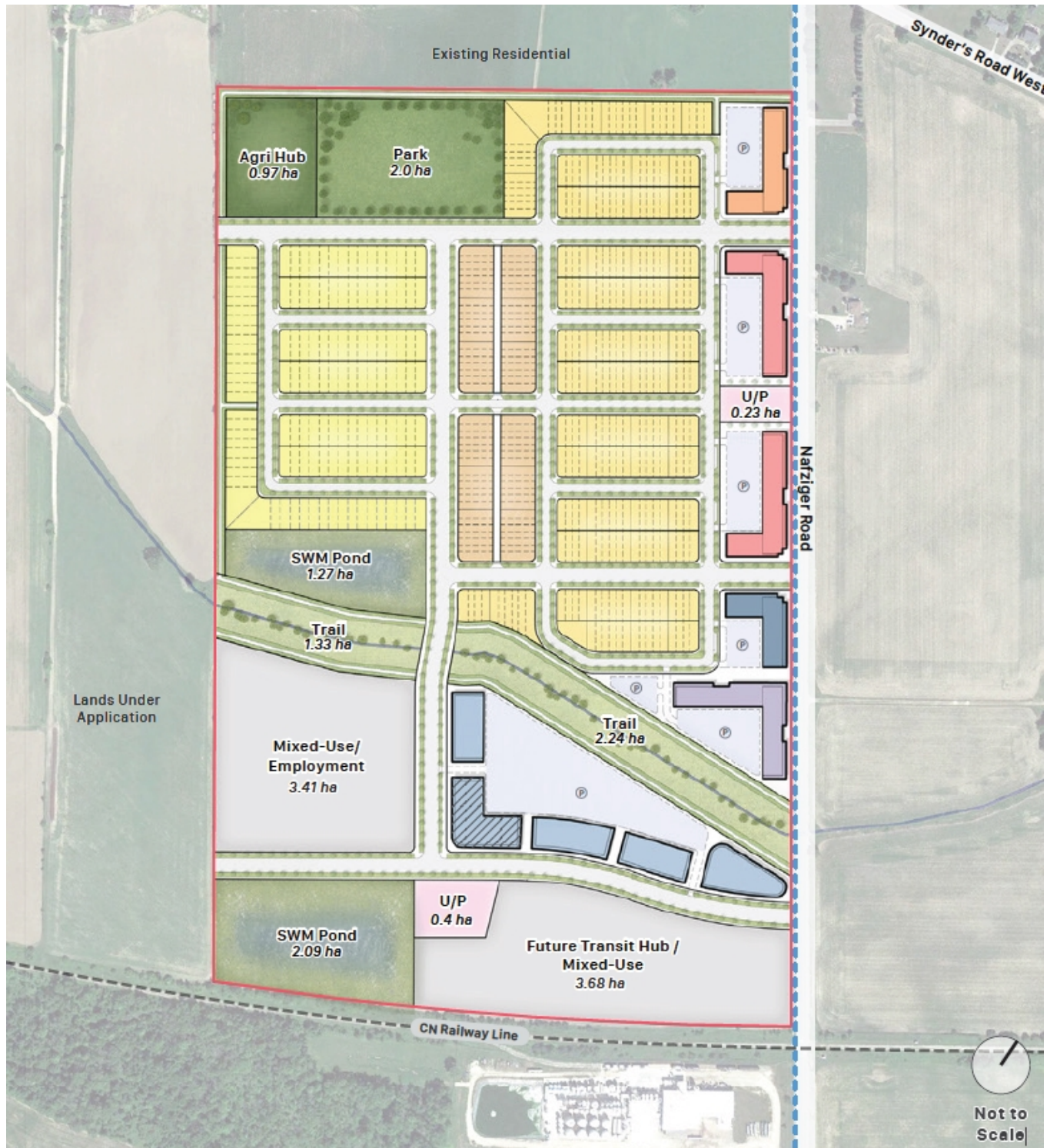
Erica Bayley

P.Eng.
Senior Project Manager



Attachments





Appendix A





Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
519-896-3163 cbowness@pts1.com

Count Name: Waterloo Street & Nafziger Road

Site Code:

Start Date: 09/18/2018

Page No: 1

Turning Movement Data

Start Time	Waterloo Street Eastbound						Snyder's Road Westbound						Nafziger Road Northbound						Nafziger Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	19	27	29	0	0	75	4	13	9	0	0	26	4	16	2	0	0	22	12	28	3	0	0	43	166
7:15 AM	24	43	49	0	0	116	8	13	6	0	0	27	10	23	9	0	1	42	8	16	8	0	0	32	217
7:30 AM	20	32	56	0	0	108	13	17	11	0	0	41	8	17	16	0	1	41	13	22	14	0	2	49	239
7:45 AM	27	57	35	0	0	119	12	32	17	0	0	61	11	30	30	0	0	71	35	33	17	0	0	85	336
Hourly Total	90	159	169	0	0	418	37	75	43	0	0	155	33	86	57	0	2	176	68	99	42	0	2	209	958
8:00 AM	28	50	40	0	0	118	17	33	13	0	0	63	21	20	17	0	0	58	44	28	13	0	0	85	324
8:15 AM	37	31	36	0	0	104	14	30	15	0	0	59	12	29	6	0	0	47	9	21	8	0	0	38	248
8:30 AM	18	19	20	0	0	57	7	27	7	0	0	41	8	12	8	0	0	28	8	21	9	0	0	38	164
8:45 AM	10	28	29	0	0	67	4	25	3	0	0	32	15	22	3	0	0	40	7	23	9	0	0	39	178
Hourly Total	93	128	125	0	0	346	42	115	38	0	0	195	56	83	34	0	0	173	68	93	39	0	0	200	914
9:00 AM	10	25	11	0	0	46	3	15	6	0	0	24	9	21	5	0	0	35	5	29	17	0	0	51	156
9:15 AM	18	31	14	0	0	63	9	21	6	0	0	36	3	20	12	0	0	35	12	18	11	0	0	41	175
9:30 AM	11	27	12	0	0	50	4	31	12	0	0	47	7	25	8	0	0	40	10	21	9	0	0	40	177
9:45 AM	14	26	8	0	0	48	5	14	2	0	0	21	11	19	6	0	0	36	5	13	16	0	1	34	139
Hourly Total	53	109	45	0	0	207	21	81	26	0	0	128	30	85	31	0	0	146	32	81	53	0	1	166	647
10:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:30 AM	10	44	12	0	0	66	7	26	4	0	0	37	10	14	16	0	0	40	2	22	6	0	0	30	173
11:45 AM	5	32	11	0	0	48	9	19	8	0	0	36	9	17	8	0	0	34	2	13	15	0	0	30	148
Hourly Total	15	76	23	0	0	114	16	45	12	0	0	73	19	31	24	0	0	74	4	35	21	0	0	60	321
12:00 PM	14	27	9	0	0	50	4	18	6	0	0	28	11	22	6	0	0	39	3	14	15	0	0	32	149
12:15 PM	16	16	10	0	0	42	5	33	7	0	0	45	13	12	3	0	0	28	7	18	11	0	0	36	151
12:30 PM	7	22	10	0	0	39	6	24	7	0	0	37	10	13	5	0	0	28	6	24	17	0	0	47	151
12:45 PM	12	19	7	0	0	38	2	17	5	0	0	24	14	20	9	0	0	43	3	19	10	0	0	32	137
Hourly Total	49	84	36	0	0	169	17	92	25	0	0	134	48	67	23	0	0	138	19	75	53	0	0	147	588
1:00 PM	12	27	9	0	0	48	4	31	7	0	0	42	16	18	8	0	0	42	7	16	14	0	0	37	169
1:15 PM	13	24	12	0	0	49	7	29	9	0	0	45	12	21	9	0	2	42	5	16	15	0	3	36	172
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	25	51	21	0	0	97	11	60	16	0	0	87	28	39	17	0	2	84	12	32	29	0	3	73	341
4:00 PM	18	32	16	0	0	66	16	46	13	0	0	75	37	32	20	0	0	89	9	13	19	0	3	41	271
4:15 PM	13	42	11	0	0	66	8	43	12	0	0	63	32	23	12	0	0	67	5	29	35	0	0	69	265
4:30 PM	19	43	13	0	0	75	7	45	8	0	0	60	38	31	13	0	0	82	9	22	32	0	0	63	280
4:45 PM	20	35	17	0	0	72	7	27	6	0	0	40	37	34	10	0	0	81	9	23	25	0	0	57	250

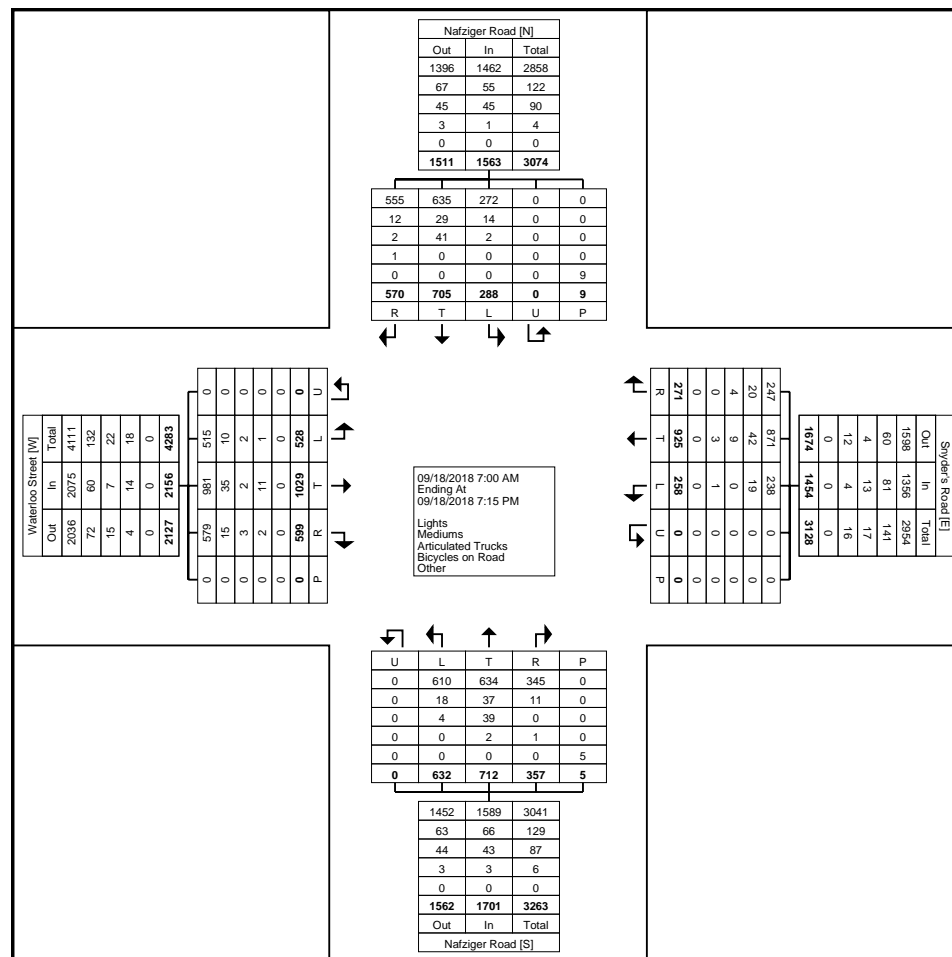
Hourly Total	70	152	57	0	0	279	38	161	39	0	0	238	144	120	55	0	0	319	32	87	111	0	3	230	1066
5:00 PM	27	41	19	0	0	87	12	51	16	0	0	79	40	33	14	0	0	87	8	20	25	0	0	53	306
5:15 PM	14	30	18	0	0	62	16	47	9	0	0	72	33	20	6	0	0	59	7	29	36	0	0	72	265
5:30 PM	12	40	20	0	0	72	9	45	14	0	0	68	67	24	20	0	0	111	8	32	46	0	0	86	337
5:45 PM	13	35	11	0	0	59	14	43	11	0	0	68	29	27	12	0	0	68	8	20	42	0	0	70	265
Hourly Total	66	146	68	0	0	280	51	186	50	0	0	287	169	104	52	0	0	325	31	101	149	0	0	281	1173
6:00 PM	12	33	14	0	0	59	6	40	7	0	0	53	26	24	11	0	1	61	1	17	25	0	0	43	216
6:15 PM	21	28	13	0	0	62	10	27	4	0	0	41	25	34	11	0	0	70	7	31	18	0	0	56	229
6:30 PM	18	24	19	0	0	61	4	23	2	0	0	29	25	21	16	0	0	62	8	21	18	0	0	47	199
6:45 PM	16	38	9	0	0	63	5	20	9	0	0	34	29	18	26	0	0	73	6	33	12	0	0	51	221
Hourly Total	67	123	55	0	0	245	25	110	22	0	0	157	105	97	64	0	1	266	22	102	73	0	0	197	865
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	528	1029	599	0	0	2156	258	925	271	0	0	1454	632	712	357	0	5	1701	288	705	570	0	9	1563	6874
Approach %	24.5	47.7	27.8	0.0	-	-	17.7	63.6	18.6	0.0	-	-	37.2	41.9	21.0	0.0	-	-	18.4	45.1	36.5	0.0	-	-	-
Total %	7.7	15.0	8.7	0.0	-	31.4	3.8	13.5	3.9	0.0	-	21.2	9.2	10.4	5.2	0.0	-	24.7	4.2	10.3	8.3	0.0	-	22.7	-
Lights	515	981	579	0	-	2075	238	871	247	0	-	1356	610	634	345	0	-	1589	272	635	555	0	-	1462	6482
% Lights	97.5	95.3	96.7	-	-	96.2	92.2	94.2	91.1	-	-	93.3	96.5	89.0	96.6	-	-	93.4	94.4	90.1	97.4	-	-	93.5	94.3
Mediums	10	35	15	0	-	60	19	42	20	0	-	81	18	37	11	0	-	66	14	29	12	0	-	55	262
% Mediums	1.9	3.4	2.5	-	-	2.8	7.4	4.5	7.4	-	-	5.6	2.8	5.2	3.1	-	-	3.9	4.9	4.1	2.1	-	-	3.5	3.8
Articulated Trucks	2	2	3	0	-	7	0	9	4	0	-	13	4	39	0	0	-	43	2	41	2	0	-	45	108
% Articulated Trucks	0.4	0.2	0.5	-	-	0.3	0.0	1.0	1.5	-	-	0.9	0.6	5.5	0.0	-	-	2.5	0.7	5.8	0.4	-	-	2.9	1.6
Bicycles on Road	1	11	2	0	-	14	1	3	0	0	-	4	0	2	1	0	-	3	0	0	1	0	-	1	22
% Bicycles on Road	0.2	1.1	0.3	-	-	0.6	0.4	0.3	0.0	-	-	0.3	0.0	0.3	0.3	-	-	0.2	0.0	0.0	0.2	-	-	0.1	0.3
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80.0	-	-	-	-	-	11.1	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	8	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.0	-	-	-	-	-	88.9	-	-



Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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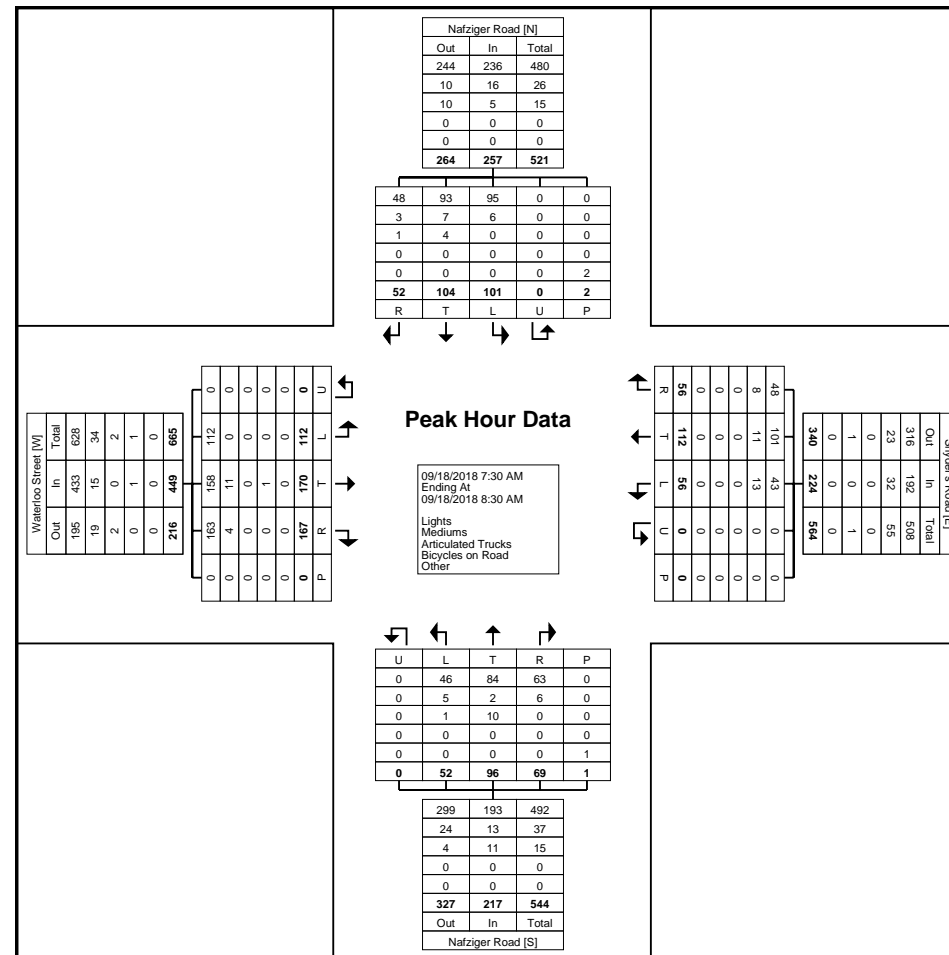
Count Name: Waterloo Street & Nafziger Road
Site Code:
Start Date: 09/18/2018
Page No: 4

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Waterloo Street Eastbound						Snyder's Road Westbound						Nafziger Road Northbound						Nafziger Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:30 AM	20	32	56	0	0	108	13	17	11	0	0	41	8	17	16	0	1	41	13	22	14	0	2	49	239
7:45 AM	27	57	35	0	0	119	12	32	17	0	0	61	11	30	30	0	0	71	35	33	17	0	0	85	336
8:00 AM	28	50	40	0	0	118	17	33	13	0	0	63	21	20	17	0	0	58	44	28	13	0	0	85	324
8:15 AM	37	31	36	0	0	104	14	30	15	0	0	59	12	29	6	0	0	47	9	21	8	0	0	38	248
Total	112	170	167	0	0	449	56	112	56	0	0	224	52	96	69	0	1	217	101	104	52	0	2	257	1147
Approach %	24.9	37.9	37.2	0.0	-	-	25.0	50.0	25.0	0.0	-	-	24.0	44.2	31.8	0.0	-	-	39.3	40.5	20.2	0.0	-	-	-
Total %	9.8	14.8	14.6	0.0	-	39.1	4.9	9.8	4.9	0.0	-	19.5	4.5	8.4	6.0	0.0	-	18.9	8.8	9.1	4.5	0.0	-	22.4	-
PHF	0.757	0.746	0.746	0.000	-	0.943	0.824	0.848	0.824	0.000	-	0.889	0.619	0.800	0.575	0.000	-	0.764	0.574	0.788	0.765	0.000	-	0.756	0.853
Lights	112	158	163	0	-	433	43	101	48	0	-	192	46	84	63	0	-	193	95	93	48	0	-	236	1054
% Lights	100.0	92.9	97.6	-	-	96.4	76.8	90.2	85.7	-	-	85.7	88.5	87.5	91.3	-	-	88.9	94.1	89.4	92.3	-	-	91.8	91.9
Mediums	0	11	4	0	-	15	13	11	8	0	-	32	5	2	6	0	-	13	6	7	3	0	-	16	76
% Mediums	0.0	6.5	2.4	-	-	3.3	23.2	9.8	14.3	-	-	14.3	9.6	2.1	8.7	-	-	6.0	5.9	6.7	5.8	-	-	6.2	6.6
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	1	10	0	0	-	11	0	4	1	0	-	5	16
% Articulated Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	1.9	10.4	0.0	-	-	5.1	0.0	3.8	1.9	-	-	1.9	1.4
Bicycles on Road	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	0.0	0.6	0.0	-	-	0.2	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.1
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	50.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	50.0	-	-

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Count Name: Waterloo Street & Nafziger Road
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Turning Movement Peak Hour Data Plot (7:30 AM)



Paradigm Transportation Solutions Limited
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Cambridge, Ontario, Canada N1R 8J8
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Count Name: Waterloo Street & Nafziger Road
Site Code:
Start Date: 09/18/2018
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Turning Movement Peak Hour Data (12:30 PM)

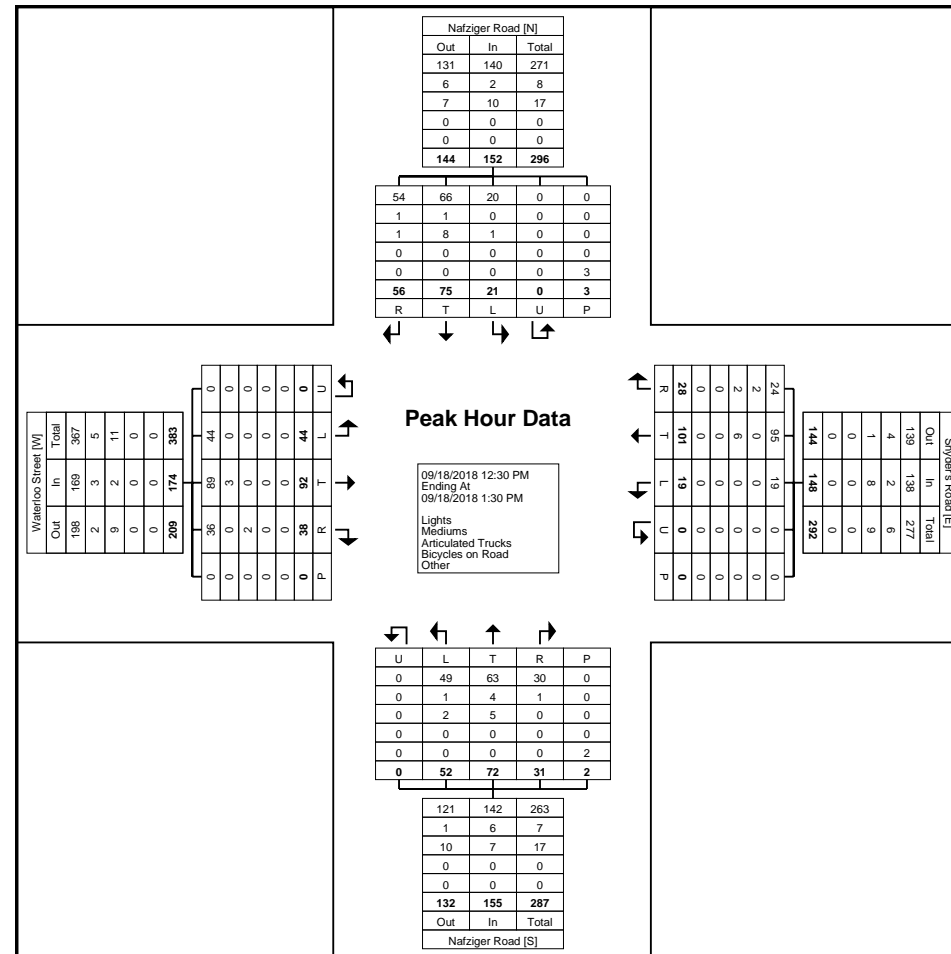
Start Time	Waterloo Street Eastbound						Snyder's Road Westbound						Nafziger Road Northbound						Nafziger Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
12:30 PM	7	22	10	0	0	39	6	24	7	0	0	37	10	13	5	0	0	28	6	24	17	0	0	47	151
12:45 PM	12	19	7	0	0	38	2	17	5	0	0	24	14	20	9	0	0	43	3	19	10	0	0	32	137
1:00 PM	12	27	9	0	0	48	4	31	7	0	0	42	16	18	8	0	0	42	7	16	14	0	0	37	169
1:15 PM	13	24	12	0	0	49	7	29	9	0	0	45	12	21	9	0	2	42	5	16	15	0	3	36	172
Total	44	92	38	0	0	174	19	101	28	0	0	148	52	72	31	0	2	155	21	75	56	0	3	152	629
Approach %	25.3	52.9	21.8	0.0	-	-	12.8	68.2	18.9	0.0	-	-	33.5	46.5	20.0	0.0	-	-	13.8	49.3	36.8	0.0	-	-	-
Total %	7.0	14.6	6.0	0.0	-	27.7	3.0	16.1	4.5	0.0	-	23.5	8.3	11.4	4.9	0.0	-	24.6	3.3	11.9	8.9	0.0	-	24.2	-
PHF	0.846	0.852	0.792	0.000	-	0.888	0.679	0.815	0.778	0.000	-	0.822	0.813	0.857	0.861	0.000	-	0.901	0.750	0.781	0.824	0.000	-	0.809	0.914
Lights	44	89	36	0	-	169	19	95	24	0	-	138	49	63	30	0	-	142	20	66	54	0	-	140	589
% Lights	100.0	96.7	94.7	-	-	97.1	100.0	94.1	85.7	-	-	93.2	94.2	87.5	96.8	-	-	91.6	95.2	88.0	96.4	-	-	92.1	93.6
Mediums	0	3	0	0	-	3	0	0	2	0	-	2	1	4	1	0	-	6	0	1	1	0	-	2	13
% Mediums	0.0	3.3	0.0	-	-	1.7	0.0	0.0	7.1	-	-	1.4	1.9	5.6	3.2	-	-	3.9	0.0	1.3	1.8	-	-	1.3	2.1
Articulated Trucks	0	0	2	0	-	2	0	6	2	0	-	8	2	5	0	0	-	7	1	8	1	0	-	10	27
% Articulated Trucks	0.0	0.0	5.3	-	-	1.1	0.0	5.9	7.1	-	-	5.4	3.8	6.9	0.0	-	-	4.5	4.8	10.7	1.8	-	-	6.6	4.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	100.0	-	-



Paradigm Transportation Solutions Limited
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Count Name: Waterloo Street & Nafziger Road
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Turning Movement Peak Hour Data Plot (12:30 PM)

Count Name: Waterloo Street & Nafziger Road
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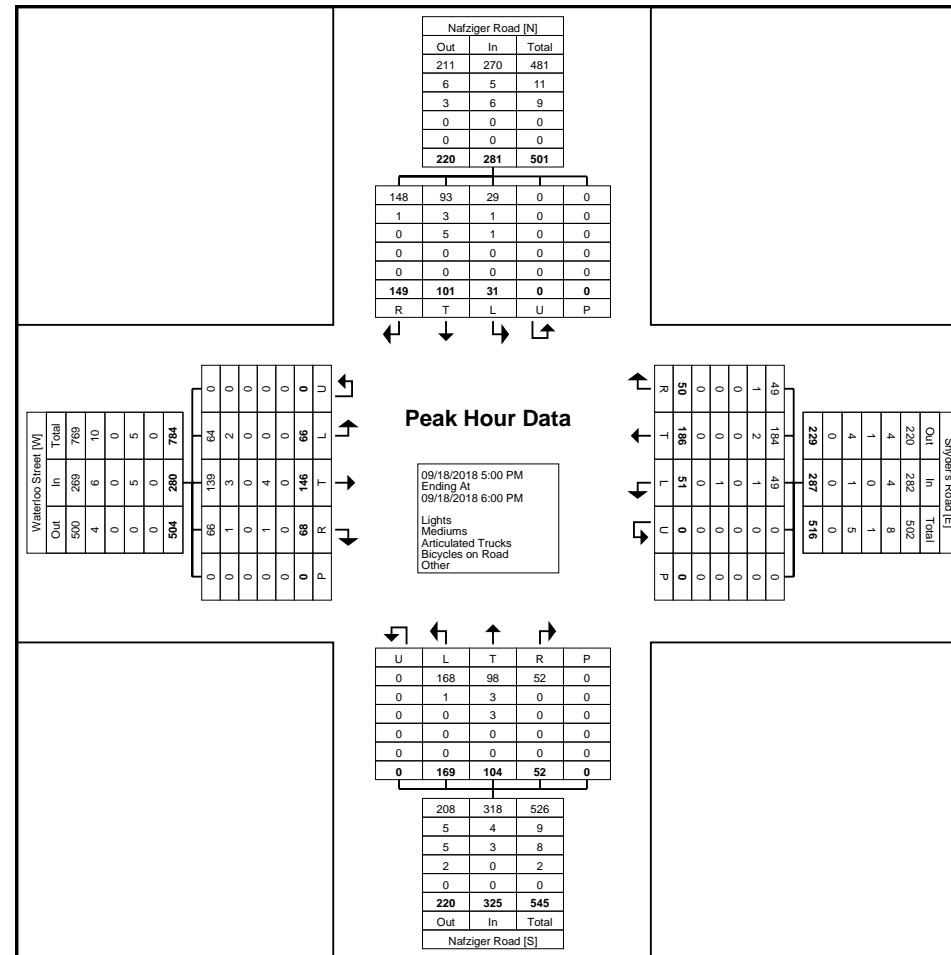
Start Time	Waterloo Street Eastbound						Snyder's Road Westbound						Nafziger Road Northbound						Nafziger Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
5:00 PM	27	41	19	0	0	87	12	51	16	0	0	79	40	33	14	0	0	87	8	20	25	0	0	53	306
5:15 PM	14	30	18	0	0	62	16	47	9	0	0	72	33	20	6	0	0	59	7	29	36	0	0	72	265
5:30 PM	12	40	20	0	0	72	9	45	14	0	0	68	67	24	20	0	0	111	8	32	46	0	0	86	337
5:45 PM	13	35	11	0	0	59	14	43	11	0	0	68	29	27	12	0	0	68	8	20	42	0	0	70	265
Total	66	146	68	0	0	280	51	186	50	0	0	287	169	104	52	0	0	325	31	101	149	0	0	281	1173
Approach %	23.6	52.1	24.3	0.0	-	-	17.8	64.8	17.4	0.0	-	-	52.0	32.0	16.0	0.0	-	-	11.0	35.9	53.0	0.0	-	-	-
Total %	5.6	12.4	5.8	0.0	-	23.9	4.3	15.9	4.3	0.0	-	24.5	14.4	8.9	4.4	0.0	-	27.7	2.6	8.6	12.7	0.0	-	24.0	-
PHF	0.611	0.890	0.850	0.000	-	0.805	0.797	0.912	0.781	0.000	-	0.908	0.631	0.788	0.650	0.000	-	0.732	0.969	0.789	0.810	0.000	-	0.817	0.870
Lights	64	139	66	0	-	269	49	184	49	0	-	282	168	98	52	0	-	318	29	93	148	0	-	270	1139
% Lights	97.0	95.2	97.1	-	-	96.1	96.1	98.9	98.0	-	-	98.3	99.4	94.2	100.0	-	-	97.8	93.5	92.1	99.3	-	-	96.1	97.1
Mediums	2	3	1	0	-	6	1	2	1	0	-	4	1	3	0	0	-	4	1	3	1	0	-	5	19
% Mediums	3.0	2.1	1.5	-	-	2.1	2.0	1.1	2.0	-	-	1.4	0.6	2.9	0.0	-	-	1.2	3.2	3.0	0.7	-	-	1.8	1.6
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	3	0	0	-	3	1	5	0	0	-	6	9
% Articulated Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	2.9	0.0	-	-	0.9	3.2	5.0	0.0	-	-	2.1	0.8
Bicycles on Road	0	4	1	0	-	5	1	0	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	6
% Bicycles on Road	0.0	2.7	1.5	-	-	1.8	2.0	0.0	0.0	-	-	0.3	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.5
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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Turning Movement Peak Hour Data Plot (5:00 PM)



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