

RANGEVIEW ESTATES

Urban Transportation Considerations
City of Mississauga
Official Plan Amendment (OPA)

Prepared For: Rangeview Landowners Group Inc.

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1.0 EXECUTIVE SUMMARY

Introduction & Background

BA Group was retained by the Rangeview Landowners Group to provide transportation consulting services related to a proposed mixed-use development on a site known as Rangeview Estates (herein referred to as “the Site” and “Rangeview”), in the City of Mississauga. The Site is generally bounded by East Avenue to the west, Lakeshore Road East to the north, Hydro Road to the east and the land parcels located beyond the south side of Rangeview Road. Rangeview Landowners Group Incorporated (LOG) currently represents 9 landholders within Rangeview Estates. The LOG currently owns 21/33 (64%) privately held properties within Rangeview.

This Transportation Considerations Report was prepared as part of the **Development Master Plan (DMP)** and the **Official Plan Amendment (OPA)**, application being submitted to the City of Mississauga.

Official Plan Amendment (OPA) 89 to the Mississauga Official Plan was enacted and passed on July 4, 2018. The purpose of OPA 89 was to add a new Major Node Character Area to the OP, the Lakeview Waterfront Major Node, and update land use designations to include residential development. Within OPA 89, the Site is located within the Lakeview Waterfront Major Node with the Rangeview lands being permitted to develop 3,700 residential dwelling units. The Lakeview Waterfront Major Node Character Area will be designed to encourage multi-modal transportation with an emphasis on transit and active transportation. The Lakeview Waterfront Major Node Character Area, the lands adjacent to Lakeshore Road East, including Rangeview, will become part of a higher-order transit corridor and transit-oriented community.

Official Plan Amendment (OPA) 125 to the Mississauga Official Plan was passed on November 10, 2021. The purpose of OPA 125 was to revise policies pertaining to the Lakeview Waterfront Major Node Character Area that reflect planning associated with the lands south and east of the Site. OPA 125 included a revised block structure and a revised planned road network, including a southward extension of Ogden Avenue across Rangeview. With the approval of OPA 125, Rangeview continues to be permitted to develop 3,700 residential dwelling units, while Lakeview Village is permitted to develop 8,050 residential units.

Proposed Development

The Site is currently occupied by a mix of commercial, industrial, retail and services with vehicle access provided through Lakeshore Road East, Rangeview Road, East Avenue, Lakefront Promenade and Hydro Road. The proposed development concept for Rangeview includes consideration for up to 5,300 residential units, as well as a total of 95,000 ft² GFA of retail and office uses. The detailed traffic analysis for this study also considered the travel demands of the adjacent lands to the south and east, inclusive of Lakeview Village (8,050 residential units, along with up to 2.1 million ft² GFA of non-residential uses) and Serson (449,000 ft² GFA of non-residential uses).



Area Street Network

The Site is directly adjacent to Lakeshore Road East (arterial road) with convenient road connections across the City, Peel Region and the Greater Toronto Area (GTA). The public street network surrounding Rangeview includes a hierarchy of road connections that range from arterial roads to local roads and is located just over 2.0 kilometres from the Queen Elizabeth Way (QEW).

The approval of the Lakeview Village development has resulted in planned changes to the local street network that align with the future road network within OPA 125. As part of Rangeview, additional components of the OPA 125 road network are being proposed. The proposed Rangeview road network considers active transportation, ease of access & connectivity for all travel modes, Complete Streets and conformity with the planned Lakeview Village road network. The Rangeview proposal includes functional plans and cross-sections for the planned road network, inclusive of East Avenue, Lakefront Promenade, Street F (extension of Ogden Avenue from Lakeshore Road East to the property line, just south of Rangeview Road), Hydro Road, Street L, Rangeview Road and Street G.

Area Transit Network

The Site's northern boundary is adjacent to the two MiWay surface transit routes, which provide direct connections to area destinations including Dixie Outlet Mall, Port Credit and Long Branch GO stations. With a transfer at the Long Branch GO Station, the Site is connected to GO Transit (Lakeshore West Line) and TTC bus / streetcar service in the east. The plans for a dedicated Bus Rapid Transit (BRT) service along Lakeshore Road East (adjacent to Rangeview), from East Avenue to Etobicoke Creek, are well underway with a current completion date of 2027.

Area Cycling Network

The existing cycling network within 500 metres of the Site area consists of multi-use trails, park trails, and signed bike routes along all sides of the Site perimeter. These cycling connections provide convenient travel opportunities for residents, employees and visitors of the surrounding area, specifically to travel using non-automobile means. The Lakeshore Connecting Communities Transportation Master Plan (TMP), proposes to incorporate uni-directional, off-road cycling facilities in each boulevard along the Lakeshore Road East corridor. Within OPA 125, as part of the planned street network, a series of "Primary Off-Road Routes" and "Primary On-Road / Boulevard Routes" are included primarily within Lakeview Village. The proposed Rangeview street network includes cycling facilities that provide connectivity to the Lakeview Village cycling facilities, as well as to Lakeshore Road East, for travel beyond the Site.

Area Pedestrian Network

The Site is within 500 metres of numerous parks, various restaurants and services, along the Lakeshore Road corridor that can be reached by walking as Lakeshore Road East includes sidewalks on both sides of the road. The Rangeview proposal includes a planned street network with a high quality urban pedestrian environment with wide sidewalks on most of the proposed streets and pedestrian mews areas to generate pedestrian activity. The proposal for a new traffic signal on Lakeshore Road East at Hydro Road, will provide additional protected crossing opportunities for pedestrians. The pedestrian network proposed for Rangeview will connect to the Lakeview Village pedestrian network, with connectivity to Lake Ontario and beyond.



Transportation Demand Management (TDM)

The TDM strategies incorporated into the development proposal will encourage people to take fewer and shorter vehicle trips in order to support transit and active transportation, as well as enhance public health and reduce harmful environmental impacts. TDM measures have been incorporated into the design and future operations of the proposed Site to include strategies such as the development of a community with a range of land uses with connectivity provided for active modes of travel, convenient connections to transit, cycling facilities & bike repair stations, on-site car/ bike/ scooter sharing facilities and a reduced parking supply for residents and visitors

Potential for a New GO Station

As a result of the advancement of GO Transit in the Greater Toronto & Hamilton Area, there is potential to improve GO Transit in the vicinity of the Site with the addition of a new GO Station. Based on the proximity to local multi-modal connections and distance to nearby existing GO Stations on the Lakeshore West Line (approximately 2.5 km from Port Credit GO Station and approximately 2.5 km from Long Branch GO Station), a potential location for a new station would be east of Cawthra Road and north of Lakeshore Road East.

The relevance of a potential Cawthra GO Station for this study is that it would greatly enhance the multi-modal transportation options available to future residents and visitors to both Rangeview and Lakeview Village. It is important to note however that the traffic analysis undertaken for this report confirms that the future transportation network, even **without** a new GO Station in the area, can acceptably accommodate the expected travel demands of the Rangeview Site with 5,300 residential units, along with the travel demand generated by Lakeview Village and Serson.

Travel Demand & Traffic Analysis

To develop the traffic analysis scenarios for this study, a number of development thresholds were tested for Rangeview to better understand the traffic-related impacts on the overall area road network. As summarized in Table 1, each scenario considered the total number of residential units for both Rangeview and Lakeview Village, the total non-residential GFA for Rangeview and Lakeview Village, and the road network and intersection improvements that would be in place at the time of development.



TABLE 1 TRAFFIC ANALYSIS SCENARIOS

Development	Scenario 1 (2031): No Ogden No Haig (with road improvements) ¹	Scenario 2 (2041): Phase 1 + Ogden connected to Lakeshore Road	Scenario 3A (2041): Phase 2 + Haig connected to Lakeshore Road	Scenario 3B (2041): Phase 2 + Dual NBL turns at Lakefront Promenade / Lakeshore Road (Haig not connected)
Rangeview	2,500 units + 0% non-residential	3,700 units + 100% non-residential	5,300 units + 100% non-residential	5,300 units + 100% non- residential
Lakeview Village	7,500 units + 1.0M ft ² non-residential	8,050 units + 1.5M ft ² non- residential	8,050 units + 1.5M ft ² non- residential	8,050 units + 1.5M ft ² non- residential
Serson	0%	0%	100%	0%
Total	10,000 units	11,750 units	13,350 units	13,350 units

The traffic analysis for this study considered two long-term horizons (2031 and 2041) and generally aligns with the methodology of The Municipal Infrastructure Group’s (TMIG) April 2021 Traffic Considerations Report Addendum (“the 2021 April TMIG report”) completed for Lakeview Village. As part of the travel demand assessment for the BA Group report, the future travel mode share applied to Rangeview considered that with the implementation of BRT along Lakeshore Road East, the auto driver mode share is expected to decrease from the existing 60% (AM peak)/ 61% (PM peak) to a future 50%, during both peak periods of the day. BA Group adjusted the travel mode shares used in the April 2021 TMIG report to include a future 2% cyclist travel mode share.

To determine the background traffic volumes for this study, traffic volume layers, inclusive of site traffic volumes and background traffic volumes, were taken from the April 2021 TMIG Report. Traffic volume layers were then created for both the Rangeview and Lakeview Village sites that could be added to the future background layers. A key component of the background travel demand assessment included a corridor reduction exercise that estimated how the planned BRT along Lakeshore Road could be expected to reduce traffic volumes.

Scenario 1: Rangeview with 2,500 units

In consideration of Rangeview with 2,500 residential units and Lakeview Village with 7,500 residential units + 67% development of the non-residential, the combined sites are expected to generate a total of 2,890 and 3,054 two-way vehicle trips, during the morning and afternoon peak period, respectively. The Scenario 1 road network includes only the list of minor road improvements to be undertaken along Lakeshore Road.

All signalized intersection movements within the study area are expected to operate at v/c equal to, or less than 1.0. All unsignalized intersection movements within the study area are expected to operate at v/c equal to, or less than 1.0, with the exception of the southbound left/through/right movement at Lakefront Promenade & Rangeview Road and the southbound through/right movement, during the afternoon peak hour. As the concerns noted at the unsignalized intersections occur as part of the interim road network condition, it is



expected that when Ogden Avenue is connected, and the road network is built-out as development progresses, operations at the unsignalized intersections noted above would improve.

Based on the foregoing, the traffic related to the Scenario 1 development proposal can be acceptably accommodated on the future transportation network.

Scenario 2: Rangeview with 3,700 units + Ogden connected

In consideration of Rangeview with 3,700 residential units + 100% development of the non-residential and Lakeview Village with 8,050 residential units + 100% development of the non-residential, the combined sites are expected to generate a total of 3,841 and 4,229 two-way vehicle trips during the morning and afternoon peak period, respectively. The Scenario 2 road network includes the improvements along Lakeshore Road related to Scenario 1, in addition to the connection of Ogden Avenue to Lakeshore Road.

All signalized intersection movements within the study area are expected to operate at v/c equal to or less than 1.0. All unsignalized intersection movements within the study area are expected to operate at v/c equal, to or less than 1.0, with the exception of the northbound left/through/right movement operates at Ogden Avenue & Street L and the northbound left/through/right movement, during the morning and afternoon peak hour. It is recommended that these unsignalized intersections be assessed in the future when updated traffic volume data is available, in order to determine if traffic signals are warranted or if two-way stop control could be implemented, in combination with a controlled pedestrian crossing (i.e. intersection pedestrian signal or pedestrian crossover) on the major street.

Based on the foregoing, the traffic related to the Scenario 2 development proposal can be acceptably accommodated on the future transportation network.

Scenario 3A: Rangeview with 5,300 units + Ogden + Haig

In consideration of Rangeview with 5,300 residential units + 100% development of the non-residential and Lakeview Village with 8,050 residential units + 100% development of the non-residential and 100% of the Serson lands developed, the combined sites are expected to generate a total of 4,337 and 4,739 two-way vehicle trips, during the morning and afternoon peak period, respectively. The Scenario 3A road network includes the improvements along Lakeshore Road related to Scenario 1, in addition to the connection of Ogden Avenue to Lakeshore Road and the connection of Haig Boulevard to Lakeshore Road.

All signalized intersection movements within the study area are expected to operate at v/c equal to, or less than 1.0, with the exception of the southbound right-turn movement at Dixie Road & Lakeshore Road and the northbound through/left movement at Lakeshore Road & Haig Boulevard, during the afternoon peak hour. In a busy urban environment, it is typical that particular movements will operate at, or slightly over capacity, during the peak periods of the day. It is also likely that traffic will divert and rebalance in the future as traffic patterns evolve. Minor improvements on the north leg of Haig Boulevard at Lakeshore Road could also improve traffic operations, hence this location should be monitored in the future as development progresses. It is however important to note that as no Rangeview-related volumes have been assigned to the intersection of Lakeshore Road & Haig Boulevard, the traffic concerns at this intersection are related only to the traffic generated by



Lakeview Village and Serson. All unsignalized intersection movements within the study area are expected to operate at v/c equal to, or less than 1.0.

Based on the foregoing, the traffic related to the Scenario 3A development proposal can be acceptably accommodated on the future transportation network.

Scenario 3B: Rangeview with 5,300 units + Ogden + Northbound Dual Left-Turn (no Haig)

In consideration of Rangeview with 5,300 residential units + 100% development of the non-residential and Lakeview Village with 8,050 residential units + 100% development of the non-residential, the combined sites are expected to generate a total of 4,138 and 4,517 two-way vehicle trips, during the morning and afternoon peak period, respectively. The Scenario 3B road network includes the improvements along Lakeshore Road related to Scenario 1, in addition to the connection of Ogden Avenue to Lakeshore Road, and the northbound dual left-turn implemented on Lakeshore Road at Lakefront Promenade. The connection of Haig Boulevard to Lakeshore Road is not included as part of Scenario 3B.

All signalized intersection movements within the study area are expected to operate at v/c equal to or less than 1.0, with the exception of the southbound right-turn movement at Dixie Road and Lakeshore Road, during the afternoon peak hour. In a busy urban environment, it is typical that particular movements will operate at, or slightly over capacity, during the peak periods of the day. It is also likely that traffic will divert and rebalance in the future as traffic patterns evolve. All unsignalized intersection movements within the study area are expected to operate at v/c equal to or less than 1.0, with the exception of a number of intersections along Street L, as well as at Ogden Avenue & Rangeview Road and at Hydro Road & Rangeview Road. It is recommended that these intersections be assessed in the future when updated traffic volume data is available, in order to determine if traffic signals are warranted or if two-way stop control could be implemented with a controlled pedestrian crossing on the major street.

Based on the foregoing, the traffic related to the Scenario 3B development proposal can be acceptably accommodated on the future transportation network.

Conclusions

The traffic analysis indicated that the future transportation network, with BRT along Lakeshore Road East, can acceptably accommodate the travel demands of the Rangeview Site with 5,300 residential units and 95,000 ft² GFA of non-residential uses, if the road network includes the planned upgrades along Lakeshore Road, in addition to the extension of Ogden Road from Lakeshore Road East to Rangeview Road, and **either** the connection of Haig Boulevard to Lakeshore Road East **or** a dual northbound left-turn on Lakefront Promenade at Lakeshore Road East.



2.0 INTRODUCTION

BA Group has been retained by the Rangeview Landowners Group to provide transportation consulting services related to a proposed mixed-use development on a site known as Rangeview Estates (herein referred to as “the Site” and “Rangeview”), in the City of Mississauga. The Site is generally bounded by East Avenue to the west, Lakeshore Road East to the north, Hydro Road to the east and the land parcels located beyond the south side of Rangeview Road. All land parcels on the south side of Rangeview Road that have frontage on Rangeview Road are included as part of the Site.

Rangeview Landowners Group Incorporated (LOG) currently represents 9 landholders within Rangeview Estates. The LOG currently owns 21/33 (64%) privately held properties within Rangeview. The LOG ownership map is provided in **Appendix A**.

This Transportation Considerations Report has been prepared as part of the **Development Master Plan (DMP)** and the **Official Plan Amendment (OPA)**, application being submitted to the City of Mississauga.

The location of the Site is illustrated in **Figure 1**.

2.1 EXISTING SITE CONTEXT

The Site is currently occupied by a mix of commercial, industrial, retail and services with vehicle access provided through Lakeshore Road East, Rangeview Road, East Avenue, Lakefront Promenade and Hydro Road.

The existing context of the Site is illustrated in **Figure 2**.





FIGURE 1 SITE LOCATION



LEGEND

- - - Site Boundary
- Retail
- Library
- School/College/University
- Park
- Gas Station
- Bank/ATM
- Grocery Store
- Place of Worship

Aerial maps provided courtesy of Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, the GIS User Community and/or Google Earth/Maps.

FIGURE 2 SITE CONTEXT

2.2 PROPOSED DEVELOPMENT CONCEPT

The proposed development concept includes the following key elements:

- Redevelopment of the Site as a mixed-use area that includes residential and commercial uses.
- The implementation of a road network that facilitates multi-modal connectivity and advances place-making initiatives.
- Redevelopment that is consistent, congruent and supportive of the ongoing Lakeview Village development that is to occur directly south of the Site, given that many of the proposed road network connections are mutually beneficial to both redevelopment proposals.
- As per Official Plan Amendment 89 (OPA 89) to the City of Mississauga Official Plan, the Site is permitted to develop 3,700 residential dwelling units. As part of this application, it is proposed to increase the development allowance on the Site to 5,300 residential dwelling units.
- Consideration for a recommendation that Metrolinx evaluate the potential to introduce a Cawthra Road GO Station along the Lakeshore West GO Train Line, to further facilitate higher order transit access for the Site, as well as the Lakeview Village development.

The Master Plan development concept proposed for Rangeview is illustrated in **Figure 3**. Since the development proposals for the combined lands south of Lakeshore Road, inclusive of Rangeview, Lakeview Village and Serson, were considered as part of the detailed traffic analysis for this study, **Table 2** includes a development summary for the combined lands. It is important to note however that this application only relates to the approvals related to Rangeview at this time. Reduced scale architectural plans of the Rangeview development proposal are included in **Appendix B**.

TABLE 2 PROPOSED DEVELOPMENT CONCEPT (COMBINED LANDS)

Land Use	Proposed Statistics
Rangeview	
Residential	3,700 to 5,300 units
Retail & Office	95,000 ft ²
Adjacent Lands	
Lakeview Village	
Residential	8,050 units
Retail, Office, Research & Development, School & Daycare, Hotel, Community Centre (GFA)	2.1 million ft ²
Serson	
General Office/ Research & Development Centre (GFA)	449,000 ft ²





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Aerial maps provided courtesy of Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, the GIS User Community and/or Google Earth/Maps.

FIGURE 3 RANGEVIEW MASTER PLAN DEVELOPMENT CONCEPT

2.3 STUDY SCOPE

The study will be completed in accordance with the City of Mississauga's Traffic Impact Study Guidelines.

A summary of BA Group's review of the urban transportation elements of the development proposal includes the following:

- Review of the relevant transportation planning and policy context;
- Review of the area transportation context;
- Transportation Demand Management (TDM) strategy, inclusive of a vehicle parking strategy;
- Preliminary assessment of the viability of a Cawthra Road GO Station;
- Proposed road network & right-of-ways (ROW);
- Confirmation of the multi-modal travel demand expected to be generated by the combined site; and
- Comprehensive traffic analysis of four different development scenarios.



3.0 TRANSPORTATION PLANNING & POLICY CONTEXT

Public policy with respect to mobility and development planning has changed over recent years with sustainable growth at the forefront of many policy initiatives. Provincial and municipal-wide directives set a planning framework that increasingly aims to mitigate and reduce vehicle traffic through the promotion and facilitation of non-auto trips and the improvement of public transit access and active modes of travel. Greater priority is now being placed on the movement and experience of people, as opposed to vehicle traffic and auto use.

Common themes across provincial and municipal policies and guidelines include:

Planning transit from a network perspective

Public transit is being transformed to achieve an interconnected network of high-order public transit service. Planning and funding efforts are being undertaken by all levels of government to achieve this vision.

Designing streets and public realm for people

While the efficient movement of automobiles has previously been the focus in transportation planning, this is no longer a primary focus. The enjoyment, safety and efficiency of pedestrians has become the primary focus of mobility planning at the regional and municipal levels.

Connecting and expanding cycling infrastructure

The City of Mississauga (and Peel Region) is focusing efforts on expanding their active transportation network. Plans are comprised of a primary network of multi-use trails and a secondary network of shorter local neighbourhood connections that create a continuous network of recreational facilities throughout the City.

Increasing multi-modal mobility options

In addition to public transit and active transportation, shared mobility options such as car-sharing, bike-sharing and ride-sharing, are becoming increasingly common in other parts of the GTA and help reduce the need for individuals to own a private vehicle. These services allow individuals to conveniently and affordably have access to a private vehicle when needed.

Reducing automobile reliance

Regional and municipal policies (Official Plans, Transportation Master Plans, etc.) are placing emphasis on mixed-use developments centered around transit in order to promote non-auto based travel. Transportation Demand Management strategies within new developments also facilitate the efficiency of existing and planned transportation infrastructure.



3.1 PROVINCIAL PLANNING

The **Growth Plan for the Greater Golden Horseshoe (2020)** outlines the importance of supporting the achievement of complete communities through a more compact built form, designed to provide a mix of uses to meet people's daily needs, facilitating aging in place, reducing automobile reliance and promoting non-auto modes. Planning for growth and optimizing infrastructure along transit and transportation corridors, adopting minimum density targets and reduced parking standards in major station areas, and integrating active transportation within the existing and planned street network are priorities.

The **2020 Provincial Policy Statement** encourages the provision of Transportation Demand Management strategies within new developments to increase the efficiency of existing and planned transportation infrastructure. It also encourages transit-oriented development and higher density that adopts a mix of uses to promote non-auto based travel.

The **Metrolinx 2041 Regional Transportation Master Plan** supports intensification in accordance with sustainable transportation objectives. Additional rapid transit options, greater pedestrian connections, and mixed-use density should be considered for the City of Toronto and the surrounding region, including the City of Mississauga.

The **Connecting the GGH: A Transportation Plan for the Greater Golden Horseshoe** (February 2022) provides a 30-year vision (i.e. to 2051) to building a more sustainable and resilient transportation system in the Greater Golden Horseshoe (GGH) to enable transit-oriented communities. Planned rapid transit infrastructure expansion is included and outlined in greater detail in **Section 4.2.2**.

3.2 REGIONAL PLANNING

The **Region of Peel Official Plan (OP)** promotes sustainable forms of transportation through Regional Intensification Corridors, which in turn support sustainable development through efficient use of land, densities supportive of transit and pedestrian mobility, and complete urban communities containing living, working and recreational opportunities. Regional Intensification Corridors are characterized by Urban Growth Centres linked by public transit, high intensity, compact urban form with an appropriate mix of uses, transit-supportive and pedestrian-oriented urban forms, and opportunities for higher order transit.

The **Peel Region Sustainable Transportation Strategy (STS)**, approved by Peel Region Council in February 2018, is a framework outlining policies, programs and infrastructure in order to enable and grow the sustainable transportation modes in Peel Region. Most notably, the STS sets a goal for 50% of the morning peak period trips in the Region to be made by sustainable transportation modes by 2041, up from the current 37% sustainable mode share. The STS identifies sustainable transportation modes as trips made by walking, cycling, transit, and carpool as well as trips avoided through teleworking.

Over fifty actions items are identified in the STS, consisting of both short-term and long-term recommendations. The short-term priorities of the STS are supported by two accompanying five-year implementation plans, the 2018-2022 Active Transportation Implementation Plan (ATIP) and the 2018-2022 Transportation Demand Management Implementation Plans (TDMIP). Examples of short-term priorities include encouraging and supporting cycling and walking from transit hub and other community destinations as well as identifying the locations of new and upgraded walking and cycling infrastructure.



3.3 CITY OF MISSISSAUGA & LOCAL PLANNING

3.3.1.1 City of Mississauga Official Plan (OP) (Consolidated October 21, 2021):

The City of Mississauga Official Plan (OP) sets the planning policy framework to guide the future growth and development of the City. It recognizes that new growth will take place primarily through infilling and redevelopment of appropriate areas that can benefit from growth and change. A key priority identified within the OP is to support a strong public transportation system in the City and address the City's long-term sustainability. General support is also indicated for providing more opportunity for transit and active transportation choices to create a more sustainable, multi-modal city.

Major Nodes are intended to be prominent centres of mixed-use activity with a variety of employment opportunities, higher-density housing, and active transportation choices that achieve a high-quality urban environment. The Site is located within the Rangeview Estates precinct of the Lakeview Waterfront Major Node Character Area identified in the City of Mississauga OP. This designation came about through Official Plan Amendment (OPA) 89 and 125 which are discussed in further detail below.

3.3.1.2 City of Mississauga Official Plan: Official Plan Amendment (OPA) 89

Official Plan Amendment (OPA) 89 to the Mississauga Official Plan was enacted and passed on July 4, 2018 through By-law 0169-2018. The purpose of OPA 89 was to add a new Major Node Character Area to the OP, the Lakeview Waterfront Major Node, and update land use designations to include residential development. As a result of OPA 89, the Site is located within the Lakeview Waterfront Major Node and further, the Rangeview lands were permitted to include 3,700 residential dwelling units.

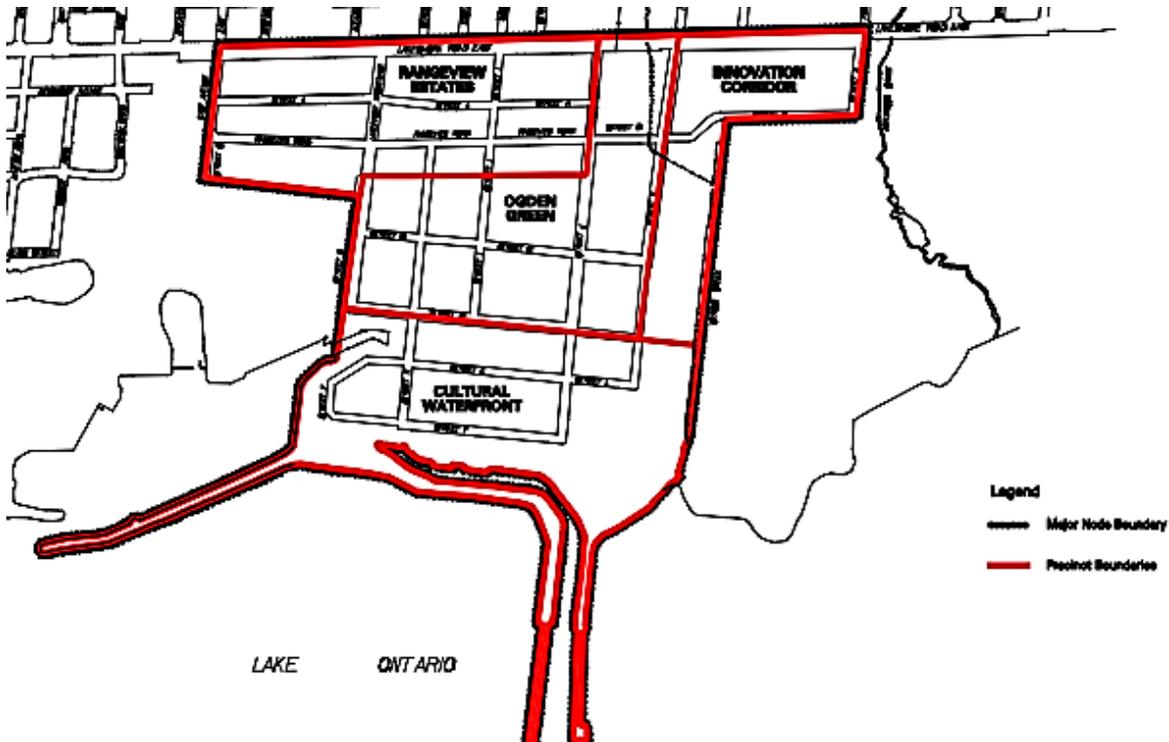
The Lakeview Waterfront Major Node Character Area, specifically, will be designed to encourage multi-modal transportation with an emphasis on transit and active transportation to reduce traffic delays, congestion, energy consumption, and pollution. The community will have a highly-connected network of streets and routes for active transportation to support walking and cycling. Overall, the community will design a mobility system that encourages all transportation modes and innovative parking solutions.

Furthermore, within the Lakeview Waterfront Major Node Character Area, the lands adjacent to Lakeshore Road East, including the Site, will become part of a higher-order transit corridor and transit-oriented community once the enhanced transit route planned along the Lakeshore Road East is complete.

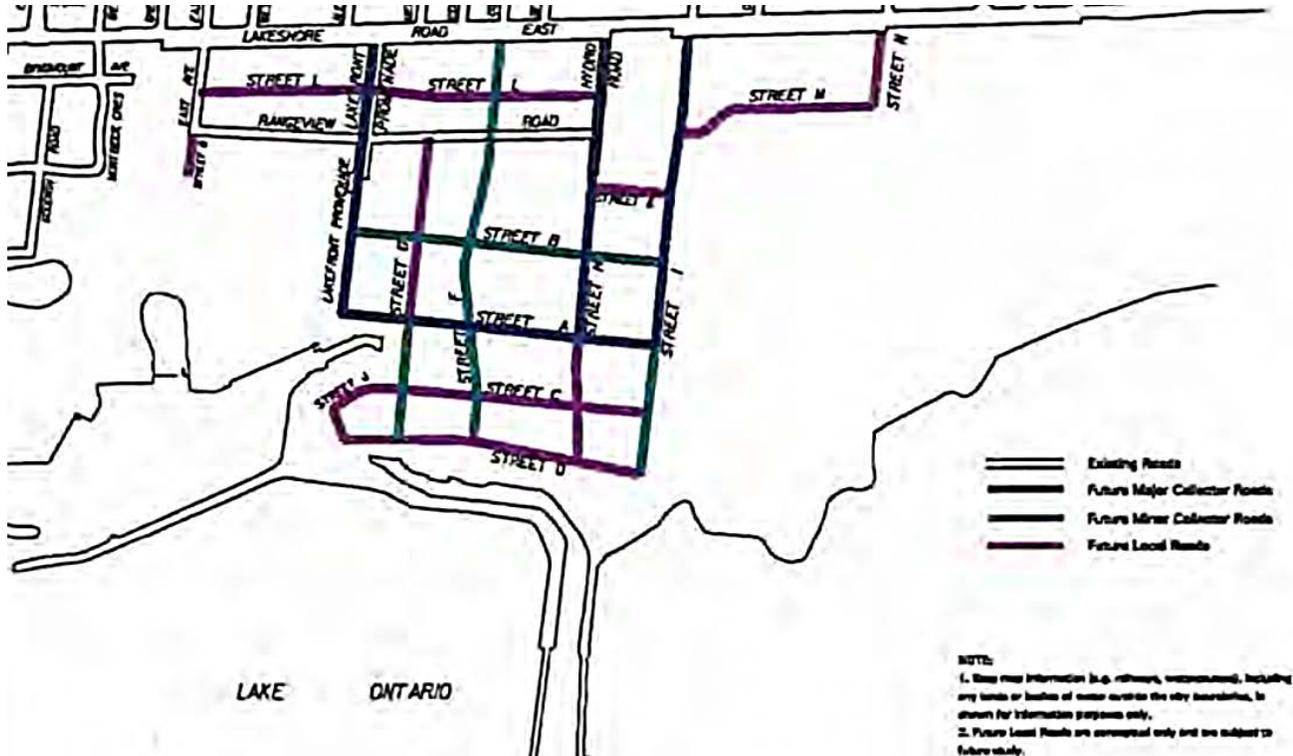
3.3.1.3 City of Mississauga Official Plan: Official Plan Amendment (OPA) 125

Official Plan Amendment (OPA) 125 to the Mississauga Official Plan was enacted and passed on November 10, 2021 through By-law 0231-2021. The purpose of OPA 125 was to revise policies pertaining to the Lakeview Waterfront Major Node Character Area reflecting planning associated with the lands to the south and east of the Site, as outlined in **Section 3.3.2**. Key within OPA 125 was a revised block structure (see **Exhibit 1** below) and a revised planned road network (see **Exhibit 2** below), notably including a southward extension of Ogden Avenue (Street F) into the Rangeview Lands and further south).





**EXHIBIT 1: LAKEVIEW WATERFRONT MAJOR NODE CHARACTER AREA PRECINCTS
(CITY OF MISSISSAUGA OFFICIAL PLAN: MAP 13-3-2)**



**EXHIBIT 2: LAKEVIEW WATERFRONT MAJOR NODE CHARACTER AREA FUTURE ROADS
(CITY OF MISSISSAUGA OFFICIAL PLAN: SECTION 13.3, FIGURE 4)**

Conditions of Approval were provided within OPA 125, that pertain to the area street network and other improvements, that will be necessary to accommodate the planned development of both Lakeview Village and Rangeview, and are listed as follows:

42.0 The applicant/owner shall make satisfactory arrangements with the Region of Peel and City of Mississauga for mitigation measures and external road improvements as described in the Transportation Considerations Report, including all addendums as prepared by The Municipal Infrastructure Group Ltd. to support full build-out of the proposed development. The mitigation measures prior to full build-out are as follows:

- a. Construction of westbound right-turn lane at Cawthra Road and Lakeshore Road East;*
- b. Construction of westbound right-turn lane at Dixie Road and Lakeshore Road East;*
- c. Construction of eastbound right-turn lane at Lakefront Promenade and Lakeshore Road East;*
- d. Northbound lanes reconfigured at Lakefront Promenade and Lakeshore Road East to include a dedicated left-turn lane and share through/right lane;*
- e. Construction of eastbound right-turn lane at Hydro Road and Lakeshore Road East;*
- f. Northbound lanes reconfigured at Hydro Road and Lakeshore Road East to include a dedicated left-turn lane and a shared left/through/right lane;*
- g. Signalization of Hydro Road and Lakeshore Road East intersection, as per Lakeshore Connecting Communities BRT roll plan drawings.*

Further considerations may include:

- h. Ogden Avenue and Haig Boulevard road extensions, and the implementation of the Lakeshore Connecting Communities Bus Rapid Transit (BRT) being completed;*
- i. Construction of eastbound right-turn lane at Haig Boulevard and Lakeshore Road East;*
- j. Northbound lanes at Ogden Avenue and Lakeshore Road East configured to include a dedicated left-turn lane and a shared through/right lane;*
- k. Northbound lanes at Haig Boulevard and Lakeshore Road East configured to include a dedicated left-turn lane and a shared through/right lane; and,*
- l. Southbound lanes reconfigured at Dixie Road and Lakeshore Road East to include a dedicated right-turn lane and a shared left/through lane.*

The comprehensive traffic analysis for the proposed development (**Section 8**) of the Rangeview Lands have assumed the mitigation measures assumed within Conditions of Approval as part of future scenarios.

3.3.1.4 Lakeshore Connecting Communities Transportation Master Plan (TMP)

The Lakeshore Connecting Communities Transportation Master Plan (TMP), endorsed by City Council in June 2019, sets out a long-term vision for transit and corridor improvements along Lakeshore Road from 2020 to 2041 that will support waterfront development. The TMP envisions the Lakeshore Road corridor as an area that supports all modes of transportation, connects people to places, and moves goods to market.

Of the transit network alternatives considered in the TMP, the preferred transit solution for the 2041 horizon year is express bus / bus rapid transit (BRT) along the extent of Lakeshore Road in Mississauga; more detail is provided within **Section 4.2.2**. In addition to provisions for rapid transit, continuous separated/protected



bike lanes and sidewalks on both sides of the street are planned through the extent of the route. In January 2021, it was announced that the City of Mississauga would receive federal and provincial funding for transit infrastructure through the Investing in Canada Infrastructure Program (ICIP) to fund projects including the Lakeshore BRT. At this time, completion of the Lakeshore BRT is targeted for 2027.

3.3.2 Lakeview Village

Lakeview Community Partners Limited together with the City, the Region, relevant external agencies, and the community undertook a multi-year process of creating the Lakeview Waterfront Development Master Plan, applicable to the lands (Lakeview Village) immediately south and east of Rangeview, which culminated with Council's endorsement of the Plan on November 6, 2019. Plan of subdivision (illustrated in **Exhibit 3**), rezoning and Official Plan Amendment (OPA) applications were all submitted and have since been approved; By-law 0119-2022 was passed, amending City of Mississauga Zoning By-law 0225-2007, but remains under appeal at the time of writing of this report. As described above, OPA 89 and OPA 125 include Lakeview Village.

Lakeview Village is being planned as a mixed-use development. The following development statistics have been approved to date:

- 8,050 dwelling units (inclusive of low-rise, mid-rise, and high-rise multifamily housing)
- 191 hotel rooms
- 435,856 ft² recreational community centre GFA
- 745,316 ft² office GFA
- 745,316 ft² research & development centre GFA
- 202,718 ft² retail GFA (38,793 ft² retail GFA is considered to be ancillary)
- 850 student capacity elementary school
- 39 child capacity day care centre

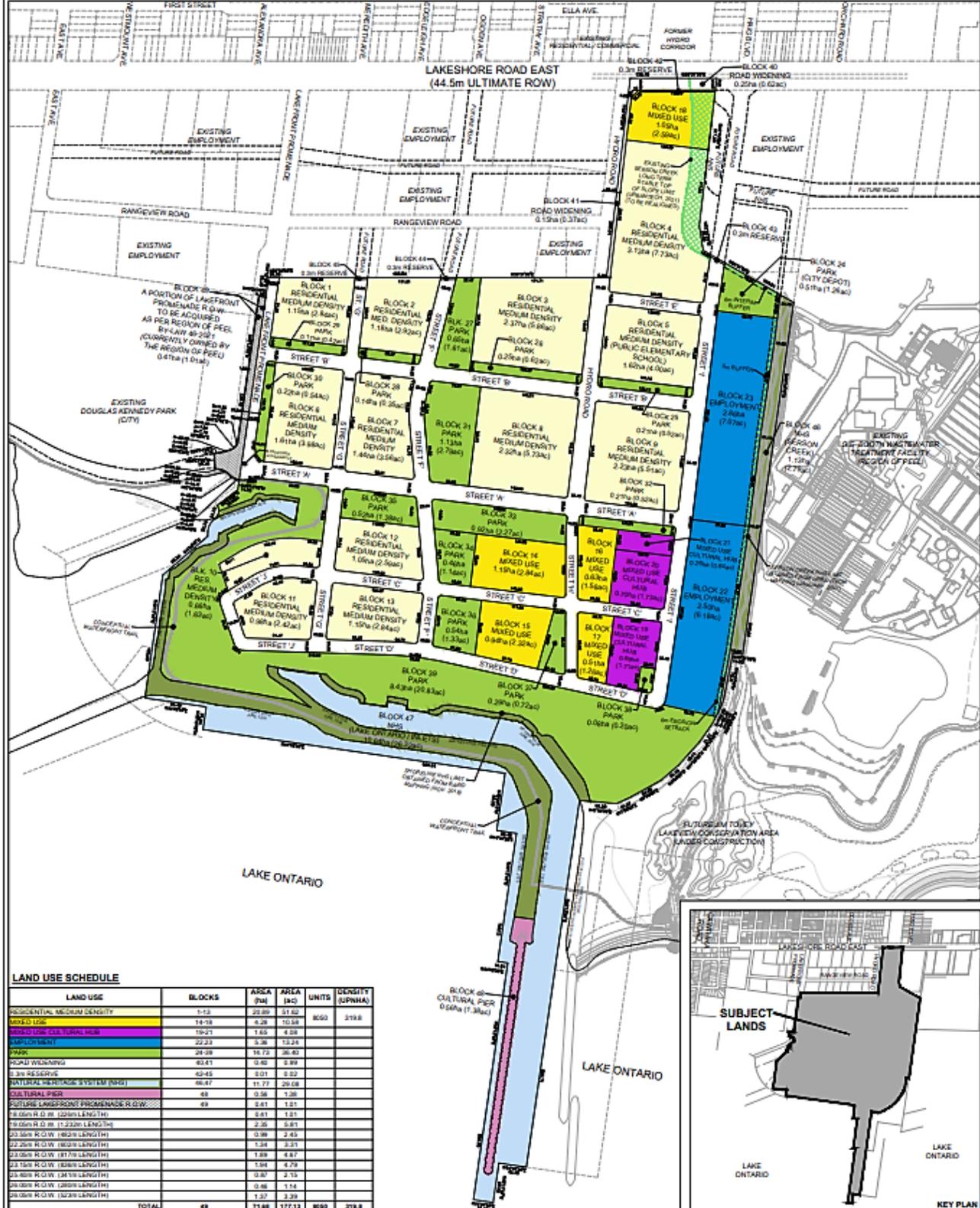
From a transportation perspective, the development of Lakeview Village is inter-related with the proposed redevelopment of the Rangeview Site. As illustrated in the Plan of Subdivision (**Exhibit 3**), much of the street network is shared between the two sites, notably including existing and planned Major and Minor Collector Roads (i.e. Lakefront Promenade, the planned Ogden Avenue extension and Hydro Road).

The planned street network for both Rangeview and Lakeview Village, will provide north-south connections to Lakeshore Road East, as well as key east-west connections across both sites. In addition to the shared road network, the existing residential development unit count permissions for Rangeview and Lakeview Village were jointly outlined in OPA 89 and updated in OPA 125, as follows:

- Rangeview (referred to as Rangeview Estates): 3,700 units
- Lakeview Village (referred to as Ogden Green, Cultural Waterfront): 8,050 units

The Lakeview Waterfront Major Node Character Area, inclusive of Rangeview and Lakeview Village, is currently permitted to include a total of 11,750 residential units.





LAND USE	BLOCKS	AREA (sq)	AREA (ac)	UNITS	DENSITY (UP/HA)
RESIDENTIAL MEDIUM DENSITY	1-13	22.80	51.62	850	219.8
ROAD USE	14-18	4.28	10.08		
OPEN SPACE (CITY OFFICE)	19-21	1.62	3.68		
RECREATION	22-23	5.38	12.24		
PARK	24-29	14.72	33.40		
ROAD WIDENING	30-31	0.40	0.91		
0.3m RESERVE	32-35	0.01	0.02		
NATURAL HERITAGE SYSTEM (NHS)	36-37	11.77	26.68		
CULTURAL PIER	38	0.26	0.59		
CULTURE LANDFRONT PROMENADE R.O.W.	39	0.41	0.93		
18.00m R.O.W. (1200m LENGTH)		0.41	0.93		
19.00m R.O.W. (1200m LENGTH)		2.35	5.31		
20.00m R.O.W. (1800m LENGTH)		0.99	2.25		
22.00m R.O.W. (1800m LENGTH)		1.24	2.81		
23.00m R.O.W. (1800m LENGTH)		1.89	4.27		
23.100m R.O.W. (1800m LENGTH)		1.54	3.49		
23.800m R.O.W. (1800m LENGTH)		0.87	1.95		
24.000m R.O.W. (1800m LENGTH)		0.48	1.14		
24.000m R.O.W. (1800m LENGTH)		1.37	3.09		
TOTAL	49	71.88	177.12	850	219.8

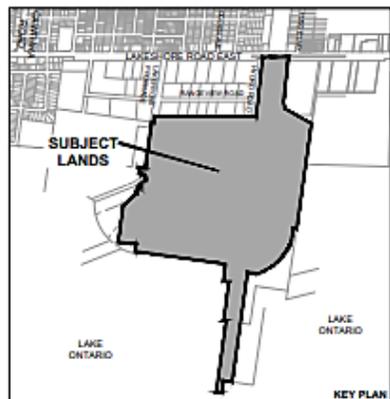


EXHIBIT 3: LAKESHORE LANDS DRAFT PLAN OF SUBDIVISION (LAKEVIEW COMMUNITY PARTNERS LIMITED / GLEN SCHNARR & ASSOCIATES INC. – SEPTEMBER 27, 2021)

By-law 0119-2022

Within Site-specific By-law 0119-2022 (*under appeal at the time of writing this report*), a number of Holding provisions were imposed on Lakeview Village as part of the rezoning approval which restrict the use of the lands (i.e. maximum residential development of 8,050 dwelling units) until relevant conditions are satisfied. Relevant to transportation conditions, the following are including:

- H2: maximum of 6,800 dwelling units are permitted until such time as “*submission of a transportation study and confirmation that the necessary traffic infrastructure improvements have been secured to adequately accommodate increased traffic volumes to the satisfaction of the Region of Peel ("Region") and the City.*”
- H3: maximum of 7,500 dwelling units are permitted until such time as “*submission of a transportation study and confirmation that the necessary traffic infrastructure improvements have been constructed to adequately accommodate increased traffic volumes to the satisfaction of the Region and the City.*”
- H6: maximum of 92,900 m² non-residential GFA are permitted until such time as “*submission of a satisfactory transportation study and confirmation that the necessary traffic infrastructure improvements have been constructed to adequately accommodate increased traffic volumes all to the satisfaction of the Region and the City.*”

It is noted that 92,900 m² non-residential GFA is nearly equivalent to 1,000,000 ft² non-residential GFA.



4.0 TRANSPORTATION CONTEXT

4.1 AREA STREET NETWORK

4.1.1 Existing Area Street Network

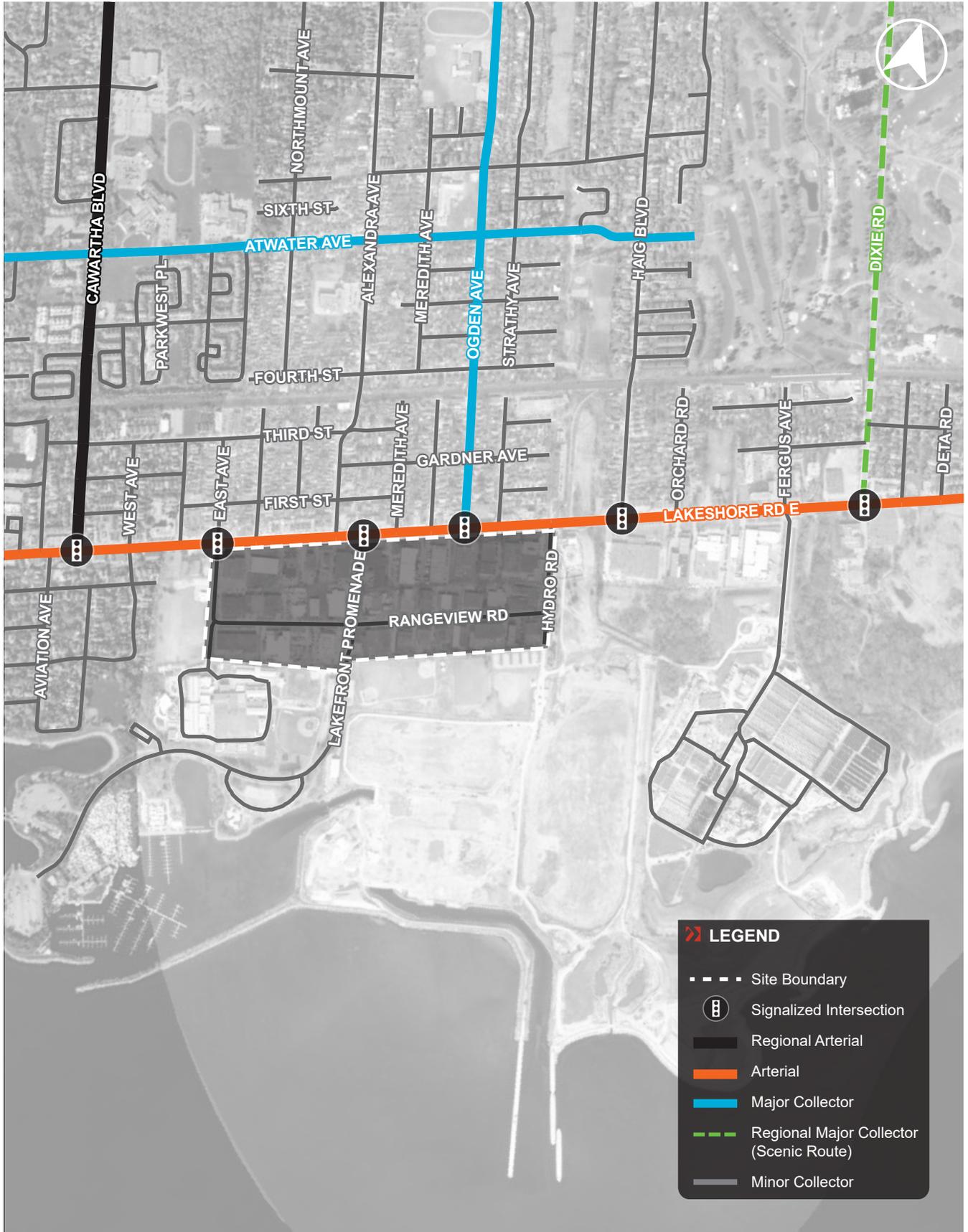
The Site is well-located relative to roadway connections provided across the City, Peel Region, and the Greater Toronto Area (GTA). The public street network surrounding the Site includes a hierarchy of road connections ranging from arterial roads to local roads. The Site is also located just over 2.0 kilometres from the Queen Elizabeth Way (QEW).

The existing area road network is illustrated in **Figure 4** and a detailed description of the area road network is provided in **Table 3**. Additionally, various local roads north of Lakeshore Road East, provide connections adjacent to the Site (i.e. to Lakeshore Road East). These local roads include the north-south roads, Westmount Avenue, Alexandra Avenue, Meredith Avenue, Edgeleigh Avenue and Strathy Avenue.

TABLE 3 EXISTING AREA STREET NETWORK

Type	Street Name	Description	
Regional Arterial	N-S	Cawthra Road	A regional arterial road, generally running in a north-south direction from Lakeshore Road East in the south to the Queen Elizabeth Way (QEW) / Highway 403 interchange in the north. Near the Site area, the roadway has a four-lane cross section, two lanes in each direction, and left turn lanes at major intersections. The posted speed limit is 50 km/h.
		Dixie Road	A regional arterial road, generally running in a north-south direction from Lakeshore Road East in the south, providing a connection to the Queen Elizabeth Way (QEW), after which it continues north beyond the City limits. Near the Site area, the roadway has a three-lane cross section, one lane in each direction, including a centre two-way left turn lane. The posted speed limit is 50 km/h.
Major Arterial	E-W	Lakeshore Road East	A major arterial road, generally running in an east-west direction from Front Street in the west (where it continues west as Lakeshore Road West) to the City limits in the east (where it continues as Lake Shore Boulevard through the City of Toronto). Near the Site area, the roadway has a five-lane cross section, two lanes in each direction, including a centre two-way left turn lane. There are left turn lanes at major intersection and the posted speed limit is 50 km/h.
Major Collector	N-S	Ogden Avenue	A major collector road, generally running in a north-south direction from Lakeshore Road East in the south to South Service Road in the north. Near the Site area, the roadway has a two-lane cross section, one lane in each direction. The assumed speed limit is 50 km/h.
Minor Collector	N-S	Haig Boulevard	A minor collector road, generally running in a north-south direction from Lakeshore Road East in the south to South Service Road in the north. Near the Site area, the roadway has a two-lane cross section with one lane in each direction. The assumed speed limit is 50 km/h.
Local Road	N-S	Hydro Road	A local road, generally running in a north-south direction from Lakeshore Road East in the north to Lakeview Promenade (i.e. Lake Ontario) in the south. The roadway has a two-lane cross section with one lane in each direction. The assumed speed limit is 50 km/h.
		East Avenue	A local road, generally running in a north-south direction from Third Street in the north to the Lakeview Water Treatment Plant in the south. The roadway has a two-lane cross section with one lane in each direction. The assumed speed limit is 50 km/h.
		Lakefront Promenade	A local road, generally running in a north-south direction from Lakeshore Road East in the north to the Lakefront Promenade Marina in the south. The roadway has a two-lane cross section with one lane in each direction. The assumed speed limit is 50 km/h, however, south of Rangeview Road, the speed limit reduces to 25 km/h.
	E-W	Rangeview Road	A local road, generally running in an east-west direction from East Avenue in the west to Hydro Road in the east. The roadway has as two-lane cross section with one lane in each direction. The assumed speed limit is 50 km/h.





Aerial maps provided courtesy of Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, the GIS User Community and/or Google Earth/Maps.

FIGURE 4 EXISTING AREA ROAD NETWORK

4.1.2 Planned Area Street Network

As outlined in **Section 3.3**, the advancement of the Lakeview Village development has resulted in planned changes to the local street network, including within the Rangeview Site, that are reflected in OPA 125. As part of the proposed OPA, details pertaining to the street network within the Rangeview Site are being advanced. Further, the approved Lakeshore Connecting Communities TMP includes planned changes to Lakeshore Road, including within the vicinity of the Site, which have been considered as part of the comprehensive traffic analysis for this report. **Figure 5** illustrates the planned street network, including planned and proposed changes derived from each of the three above-noted processes.

4.1.2.1 Lakeshore Connecting Communities Transportation Master Plan

As outlined in **Section 3.3**, the Lakeshore Connecting Communities TMP, a Bus Rapid Transit (BRT) facility with a dedicated right-of-way, is planned with a completion date of 2027 on Lakeshore Road East, in the vicinity of the Site. Exhibit 5 includes a roll plan excerpt for the right-of-way adjacent to the Site.

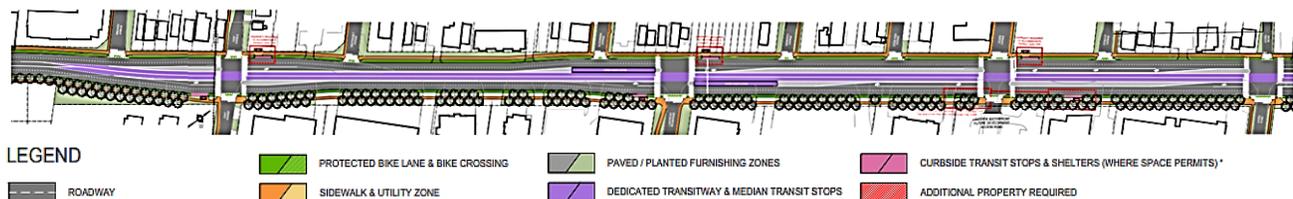


EXHIBIT 4: LAKESHORE ROAD EAST – ROLL PLAN EXCERPT (LAKESHORE CONNECTING COMMUNITIES TRANSPORTATION MASTER PLAN: CITY OF MISSISSAUGA / HDR)

Key elements of the planned changes to the Lakeshore Road East right-of-way include:

- Two vehicle travel lanes in each direction, including left-turn lanes at signalized intersections (East Avenue, Lakefront Promenade, Ogden Avenue and Hydro Road);
- Minor side streets to have right-in/ right-out access;
- Dedicated bus-only lanes in the centre of the right-of-way;
- Express bus stop located at Lakefront Promenade;
- Protected cycling lanes (both sides) & pedestrian crossings; and
- Sidewalks & paved/planted furnishing zones.

4.1.2.2 Planned Area Street Network: OPA 125 & Inspiration Lakeview

As outlined in **Section 3.3**, a new street network is planned for the entirety of the OPA 125 lands, which includes Rangeview and Lakeview Village. Within **Table 4**, details pertaining to the proposed new streets (within Lakeview Village) and adjustments to existing streets are outlined. The names of the proposed streets are listed in **Table 4** as referred to by the Inspiration Lakeview project materials.

Notably, some existing streets are planned to have modified classification. Lakefront Promenade, north of the planned Street L, is to be converted from a local road to a Major Collector Road. Hydro Road, north of the planned Street L, is to be converted from a local road to a Major Collector Road.

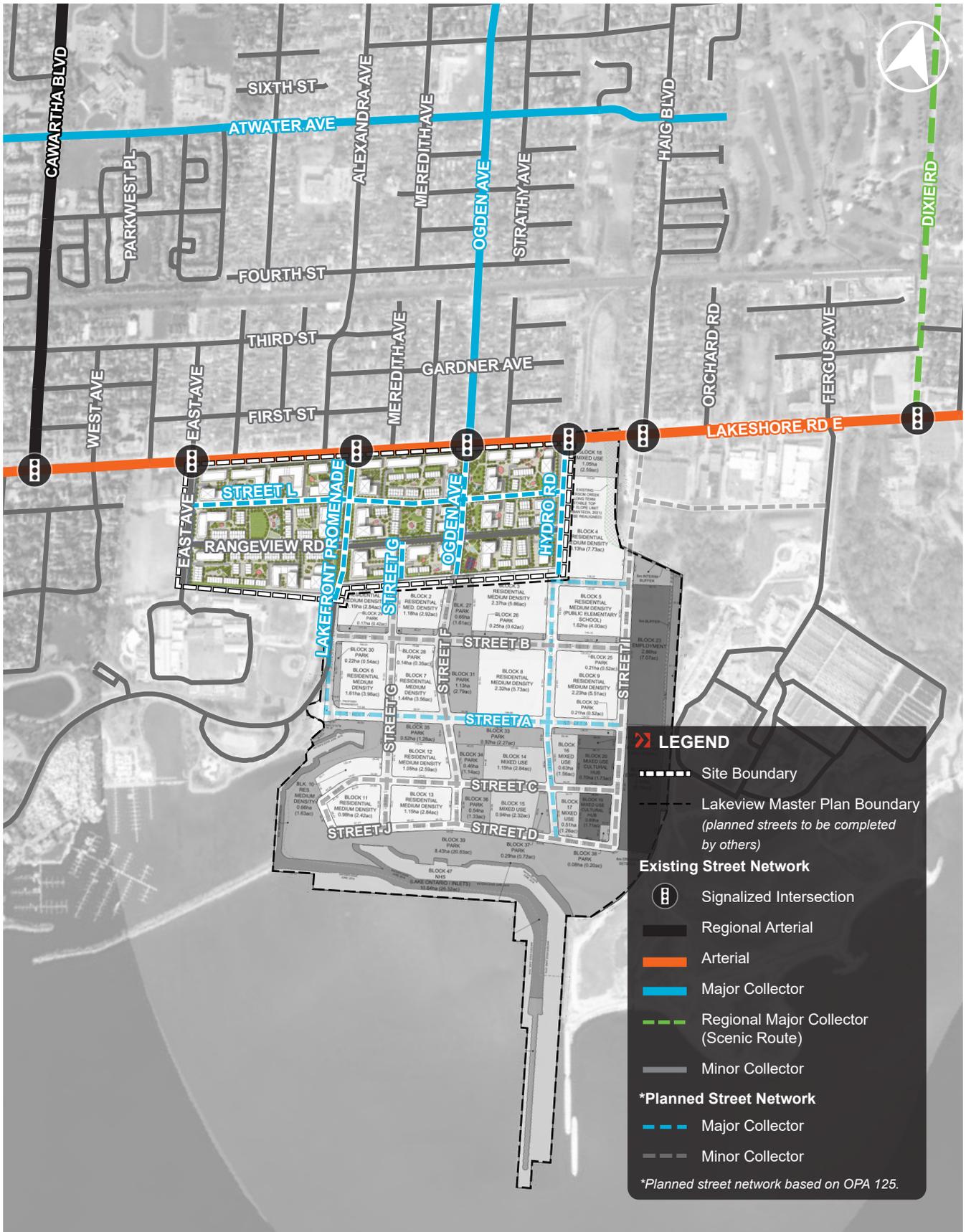


FIGURE 5 FUTURE AREA ROAD NETWORK

TABLE 4 OPA 125 / LAKEVIEW VILLAGE STREET NETWORK DETAILS

Street ¹	Right-of-Way Width (m) ²	Road Classification	Pavement Width (m)	Dual Cycle Tracks	Sidewalks (2.0m)	Layby Parking
Lakefront Promenade	26.0	Major Collector	6.7	West boulevard	Both sides	--
Street A	26.05	Major Collector (Street H to Street K)	6.7	South boulevard	Both sides	North side
	23.15	Minor Collector (Street I to Street H)	6.7	South boulevard	Both sides	North side
Street B	22.25	Minor Collector	6.6	North boulevard	South side	Both sides
Street C	19.05	Local Road	6.6	--	Both sides	South side
Street D	20.55	Local Road	6.6	South boulevard	North side	North side
Street E	19.05	Local Road	6.6	--	Both sides	South side
Street F	23.05	Minor Collector	6.6	East boulevard	Both sides	East side
Street G	23.05	Minor Collector (Street L to Street D)	6.6	West boulevard	Both sides	East side
	19.05	Local Road (north of Street L)	6.6	--	Both sides	West side
Hydro Road (Street H)	25.4	Major Collector (Lakeshore Road to Street L)	6.6	East boulevard	Both sides	East side
	18.05	Local Road (south of Street L)	6.6	--	Both sides	East side
Street I	23.15	Minor Collector (north of Street L)	6.7	East boulevard	Both sides	West side
	23.15	Local Road (south of Street L)	6.6	East boulevard	Both sides	West side
Street J	19.05	Local Road (west of Street G)	6.6	--	Both sides	Inside curve

Notes:

1. Refer to **Figure 5** for location of streets.
2. Source: Inspiration Lakeview Village draft plan of subdivision materials (The Municipal Infrastructure Group Ltd.)

4.1.2.3 Proposed New Street Network (Rangeview Lands)

Within Rangeview, it is proposed to advance upgrades to the local street network that reflect the planned road network contained within OPA 125. Within this section, greater detail is provided pertaining to proposed changes to the local street network within Rangeview. The names of the proposed streets are as identified in OPA 125. **Exhibit 6** illustrates how the planned Rangeview road network will connect to the planned Lakeview Village road network. The functional road plan is also provided in **Appendix C**.

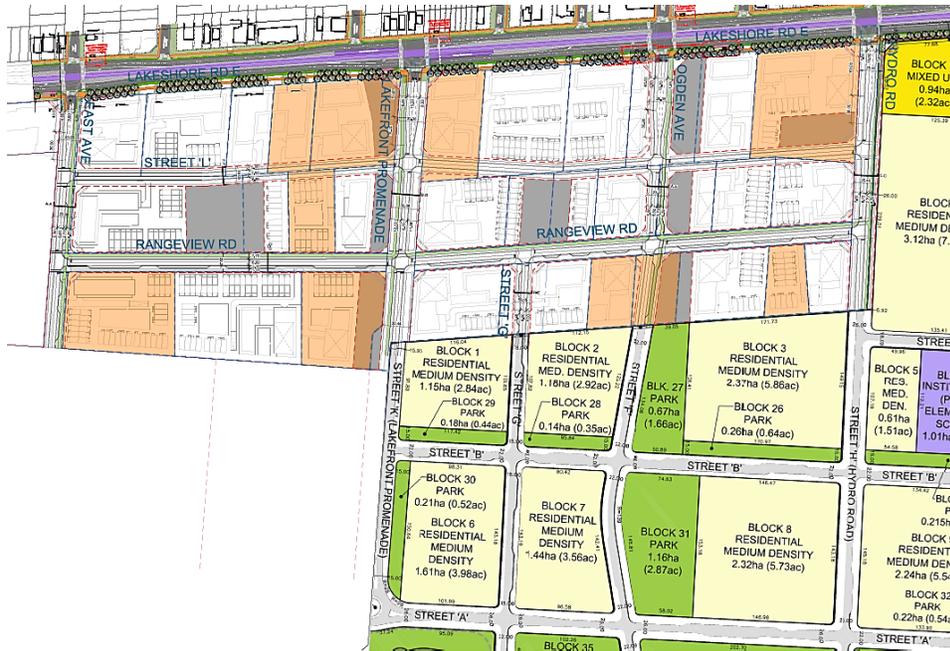


EXHIBIT 5: PLANNED RANGEVIEW ROAD NETWORK CONNECTING TO LAKEVIEW VILLAGE ROAD NETWORK

Key Street Design Objectives

Consideration for all road users:

Enhancements to the existing street network elements, will support the movement for all users (vehicles, pedestrians, cyclists) and be designed in a way to minimize road conflicts and encourage alternative modes of travel and active transportation.

Ease of access:

The new street network will facilitate convenient connections from the proposed development to / from the broader area network. The proposed street design is intended to service and support pedestrian and cycling permeability and maintain vehicle capacity at all times of the day.

Complete Streets:

The improved and proposed roads within the site have been designed with the policies of Complete Streets at the forefront. The City of Mississauga is undertaking the “Changing Lanes” project (scheduled to be complete in 2023) which will update, develop, and implement new tools to ensure that streets are safe and convenient for all users. It will deliver a Complete Streets Guide for streets in Mississauga and representing an updated approach to street planning and design for the City.

Conformity with Lakeview Village street design:

Given that many of the streets in the local area located south of Lakeshore Road East are shared between Lakeview Village and the Rangeview, and that the approvals process is substantially advanced for the former,

the proposed street network for the latter is proposed to reflect many of the design conditions (e.g. rights-of-way, etc.) planned for Lakeview Village. The objective is for the streets to have a consistent design both in terms of transportation elements and ultimately, urban design.

Intersections south of Lakeshore Road East:

All intersections south of Lakeshore Road East (excluding driveways) are proposed to be unsignalized with all-way stop-control, with all vehicle movements permitted. All street descriptions below and the traffic analysis reflect this condition. As development progresses and updated traffic counts become available, the all-way stop control could be reviewed to determine if any intersection warrants traffic signals or two-way stop control with a controlled pedestrian crossing on the major street. All intersections between north-south streets and Rangeview Road could be converted to signalized intersections and conversely, all intersections between north-south streets and Street L could be converted to side street stop control with east-west controlled pedestrian crossings.

East Avenue

East Avenue is an existing north-south public street running from Lakeshore Road East in the north to Lakeview Water Treatment Plant in the south. It is the western boundary of Rangeview. The functional plan and proposed cross-section for East Avenue are provided in **Figure 6**.

Cross Section:

East Avenue will have a 23.05m right-of-way (ROW) consisting of the following:

- One 3.3m travel lane in each direction (6.6m roadway) and 2.2m lay-by on the east side.
- On the east side of the roadway, a 3.0m two-way, protected cycle track is provided.
- The boulevard on each side of the roadway will contain 2.0m sidewalks and 2.5m planting zones.
- Appropriate buffers are provided between ROW elements.

Intersections:

East Avenue will have intersections with Lakeshore Road East, the proposed Street L, and Rangeview Road.

- The intersection with Lakeshore Road East retains the existing traffic signal location and will continue to be a signalized intersection with all vehicle movements permitted. The proposed configuration of East Avenue at this intersection will remain similar (i.e. no turning lanes). All pedestrian movements will be facilitated with crosswalks and appropriate connection will be provided between the East Avenue & Lakeshore Road East cycling facilities, to be confirmed as part of the Lakeshore Connecting Communities TMP.
- The intersection with Street L will be unsignalized and all-way stop-controlled, with all vehicle movements permitted. All pedestrian movements will be facilitated with crosswalks.
- The intersection with Rangeview Road will be unsignalized and all-way stop-controlled, with all vehicle movements permitted. All pedestrian movements will be facilitated with crosswalks and appropriate connections will be provided between the East Avenue & Rangeview Road cycling facilities.



Lakefront Promenade

Lakefront Promenade is an existing north-south public street running from Lakeshore Road East in the north to the Lakefront Promenade Marina in the south. The functional plan and proposed cross-section for Lakefront Promenade are provided in **Figure 7**.

Cross-Section:

Lakefront Promenade will have a 30.38m right-of-way (ROW) south of Lakefront Promenade consisting of the following:

- One 3.35m travel lane (6.7m roadway) in each direction.
- On the west side of the roadway, a 3.0m two-way, protected cycle track is provided.
- The boulevard on each side of the roadway will contain 2.0m sidewalks, planting zones ranging from 3.7-6.18m, and 2.9m bioswale plant zones.
- Appropriate buffers are provided between ROW elements.

Intersections:

Lakefront Promenade will have intersections with Lakeshore Road East, the proposed Street L, and Rangeview Road.

- The intersection with Lakeshore Road East retains the existing traffic signal location and will continue to be a signalized intersection with all vehicle movements permitted. The roadway will be expanded at this intersection with dedicated left- and right-turn lanes. All pedestrian movements will be facilitated with crosswalks and appropriate connection will be provided between the Lakefront Promenade & Lakeshore Road East cycling facilities, to be confirmed as part of the Lakeshore Connecting Communities TMP.
- The intersection with Street L will be unsignalized and all-way stop-controlled, with all vehicle movements permitted. All pedestrian movements will be facilitated with crosswalks.
- The intersection with Rangeview Road will be unsignalized and all-way stop-controlled, with all vehicle movements permitted. All pedestrian movements will be facilitated with crosswalks and appropriate connection will be provided between the Lakefront Promenade & Rangeview Road cycling facilities.

Street F (Ogden Avenue Extension from Lakeshore Road East to Rangeview Road)

Street F is the proposed southerly extension of Ogden Avenue, from north of Lakeshore Road East, which will eventually connect to the property line, just south of Rangeview Road. The functional plan and proposed cross-section for Street F (Ogden Avenue) are provided in **Figure 8**.

Cross Section:

Ogden Avenue will have a 23.05m right-of-way (ROW) south of Lakeshore Road East consisting of the following:

- One 3.3m travel lane in each direction and 2.2m layby on the east side. In total, where layby is provided, a 8.8m roadway will be provided.
- On the east side of the roadway, a 3.0m two-way, protected cycle track is provided.
- The boulevard on each side of the roadway will contain 2.0m sidewalks and 2.5m planting zones.



- Appropriate buffers are provided between ROW elements.

Intersections:

Ogden Avenue will have intersections with Lakeshore Road East, the proposed Street L, and Rangeview Road.

- The intersection with Lakeshore Road East retains the existing traffic signal location (currently a driveway for 1036 Lakeshore Road East on the south side) and will continue to be a signalized intersection with all vehicle movements permitted. The roadway will be expanded at this intersection with dedicated left-turn, through, and right-turn lanes. All pedestrian movements will be facilitated with crosswalks and appropriate connection will be provided between Ogden Avenue & Lakeshore Road East cycling facilities, to be confirmed as part of the Lakeshore Connecting Communities TMP.
- The intersection with Street L will be unsignalized and all-way stop-controlled, with all vehicle movements permitted. All pedestrian movements will be facilitated with crosswalks.
- The intersection with Rangeview Road will be unsignalized and all-way stop-controlled, with all vehicle movements permitted. All pedestrian movements will be facilitated with crosswalks and appropriate connection will be provided between the Ogden Avenue & Rangeview Road cycling facilities.

Hydro Road

Hydro Road is an existing north-south public street running from Lakeshore Road East in the north to the Waterfront Trail in the south. The functional plan and proposed cross-section for Hydro Road are provided in **Figure 9**.

Cross Section:

Hydro Road will have a 25.4m right-of-way (ROW) consisting of the following:

- One 3.35m travel lane in each direction (6.7m roadway) and 2.2m layby (which will serve as a bio-retention area) on the east side.
- On the east side of the roadway, a 3.0m two-way, protected cycle track is provided.
- The boulevard on each side of the roadway will contain 2.0m sidewalks. On the west side, there will be a 5.0m bioswale planting zone and on the east side, there will be 2.5m planting zone.
- Appropriate buffers are provided between ROW elements.

Intersections:

Hydro Road will have intersections with Lakeshore Road East, the proposed Street L, and Rangeview Road.

- The intersection with Lakeshore Road East is unsignalized but is proposed to be a signalized intersection with all vehicle movements permitted. The proposed configuration of Hydro Road at this intersection will remain similar (i.e. no turning lanes). All pedestrian movements will be facilitated with crosswalks and appropriate connection will be provided between the Hydro Road & Lakeshore Road East cycling facilities, to be confirmed as part of the Lakeshore Connecting Communities TMP.
- The intersection with Street L will be unsignalized and all-way stop-controlled, with all vehicle movements permitted. All pedestrian movements will be facilitated with crosswalks.
- The intersection with Rangeview Road will be unsignalized and all-way stop-controlled, with all vehicle movements permitted. All pedestrian movements will be facilitated with crosswalks and appropriate connection will be provided between the Hydro Road & Rangeview Road cycling facilities.



Street L

Street L is not an existing street. It is proposed to operate in an east-west direction from East Avenue in the west to Hydro Road to the east, to the north of, and parallel to Rangeview Road. The functional plan and proposed cross-section for Street L are provided in **Figure 10**.

Cross Section:

Street L will have a 19.05m right-of-way (ROW) consisting of the following:

- One 3.75m travel lane in each direction. In total, a 7.5m roadway will be provided.
- The boulevard on each side of the roadway will contain 2.0m sidewalks and tree planting zones ranging from 2.5-4.05m.
- Appropriate buffers are provided between ROW elements.

Intersections:

Street L will have intersections with East Avenue, Lakefront Promenade, Ogden Avenue and Hydro Road. All intersections with Street L will be unsignalized and all-way stop-controlled, with all vehicle movements permitted. All pedestrian movements will be facilitated with crosswalks.

Rangeview Road

Rangeview Road is an existing east-west public street running from East Avenue in the west to Hydro Road to the east. The functional plan and proposed cross-section for Rangeview Road are provided in **Figure 11**.

Cross Section:

Rangeview Road will have a 22.25m right-of-way (ROW) consisting of the following:

- One 3.30m travel lane in each direction (6.6m roadway) and 2.2m layby on the south side (which will serve as a bio-retention area).
- On the north side of the roadway, a 3.0m two-way, protected cycle track is provided.
- The boulevard on each side of the roadway will contain 2.0m sidewalks and 2.5m planting zones.
- Appropriate buffers are provided between ROW elements.

Intersections:

Rangeview Road will have intersections with East Avenue, Lakefront Promenade, Ogden Avenue and Hydro Road. All intersections with Rangeview Road will be unsignalized and all-way stop-controlled, with all vehicle movements permitted. All pedestrian movements will be facilitated with crosswalks and appropriate connection will be provided between the Rangeview Road & north-south street cycling facilities.

Street G

Street G is not an existing street. It is proposed to operate in a north-south direction from Rangeview Road in the north the south (within Lakeview Village) near Lake Ontario. Notably, Street G is named Street H within OPA 125. The functional plan and proposed cross-section for Street G are provided in **Figure 12**.



Cross Section:

Street G will have a 19.05m right-of-way (ROW) consisting of the following:

- One 3.3m travel lane in each direction (6.6m roadway) and 2.2m layby on the west side.
- The boulevard on each side of the roadway will contain 2.0m sidewalks and 2.5m planting zones.
- Appropriate buffers are provided between ROW elements.

Intersection:

Street G will have an intersection within Rangeview at Rangeview Road (it has other intersections within Lakeview Village). The intersection with Rangeview Road will be unsignalized and all-way stop-controlled, with all vehicle movements permitted. All pedestrian movements will be facilitated with crosswalks.

4.1.2.4 Summary of Rangeview Proposed Street Network

A summary of the proposed street network for Rangeview is provided in **Table 5**.

TABLE 5 PROPOSED RANGEVIEW STREET NETWORK – DESIGN SUMMARY

Street ¹	Right-of-Way Width (m)	Road Classification	Pavement Width (m)	Dual Cycle Tracks	Sidewalks (2.0m)	Layby Parking
East Avenue	23.05	Minor Collector	6.6	East boulevard	Both sides	East side
Lakefront Promenade	30.38	Major Collector	6.7	West boulevard	Both sides	--
Street F (Ogden Avenue Extension from Lakeshore Road East to property line, just south of Rangeview Road)	23.05	Minor Collector	6.6	East boulevard	Both sides	East side
Hydro Road	25.40	Major Collector	6.7	East boulevard	Both sides	East side
Street L	19.05	Local	7.5	--	Both sides	--
Rangeview Road	22.25	Minor Collector	6.6	North boulevard	Both sides	South side
Street G	19.05	Local	6.6	--	Both sides	West side

Notes:

1. Refer to **Figure 5** and **Appendix C** for location of streets.



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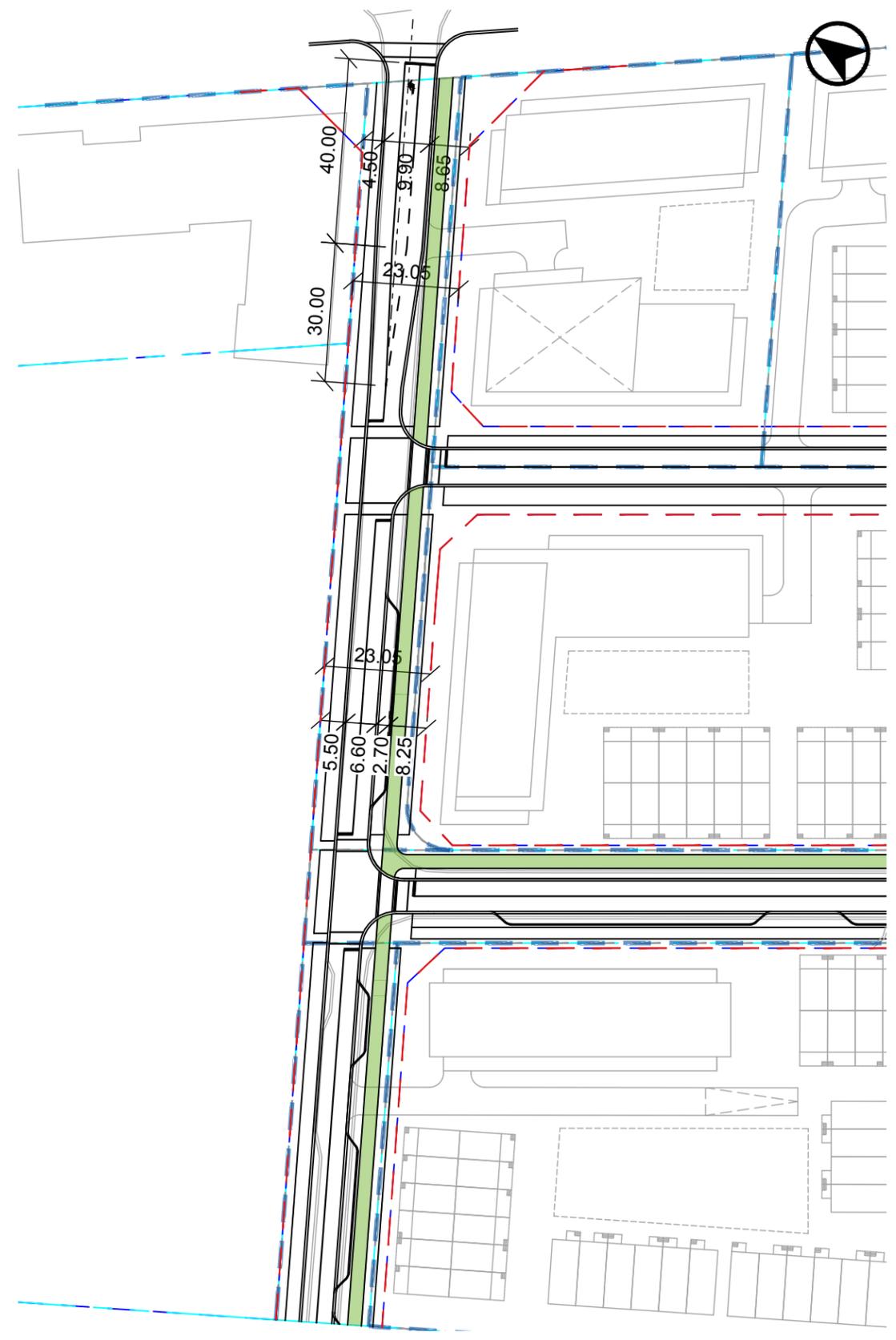
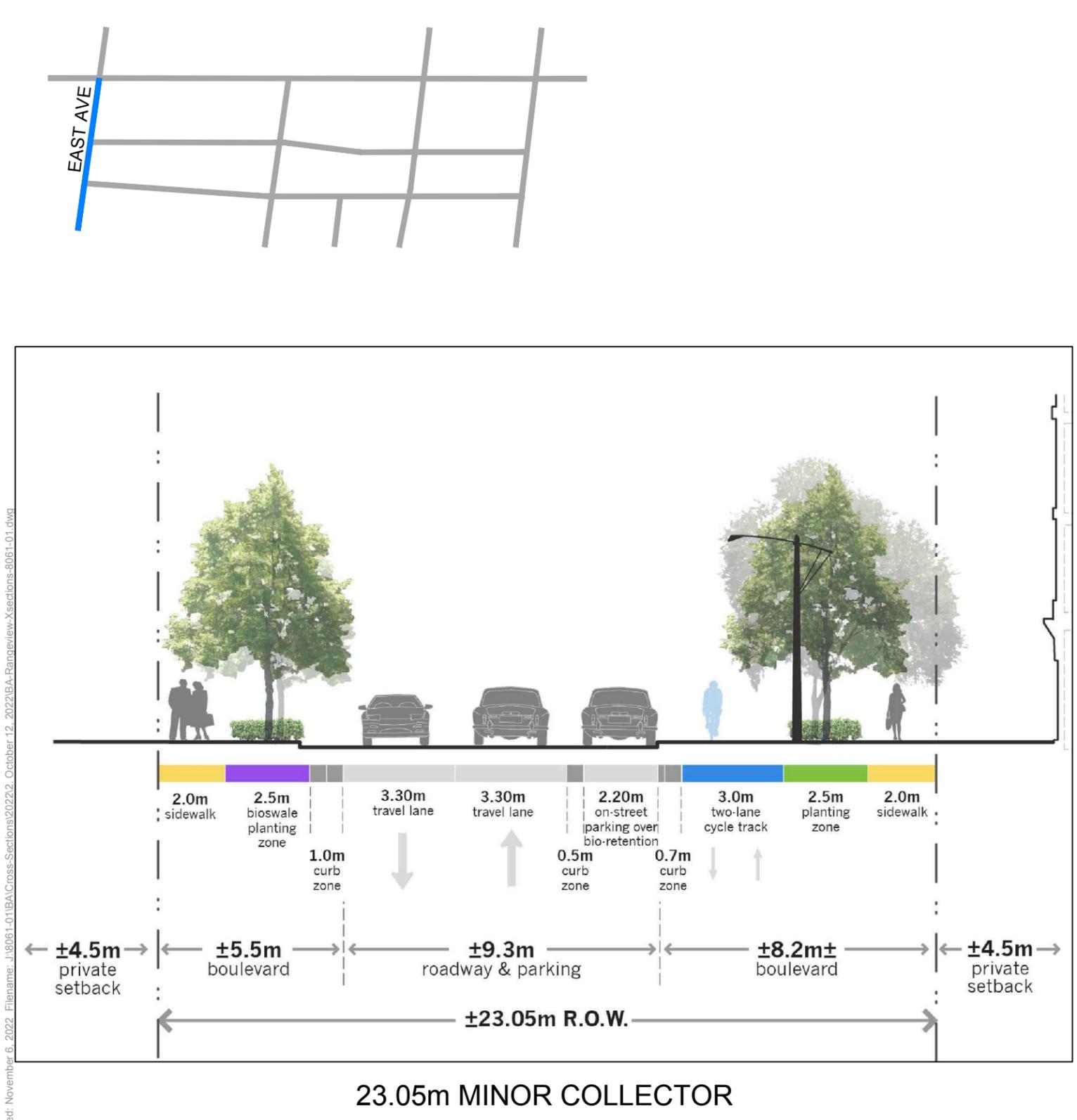


FIGURE 6 EAST AVENUE - FUNCTIONAL PLAN & CROSS-SECTIONS

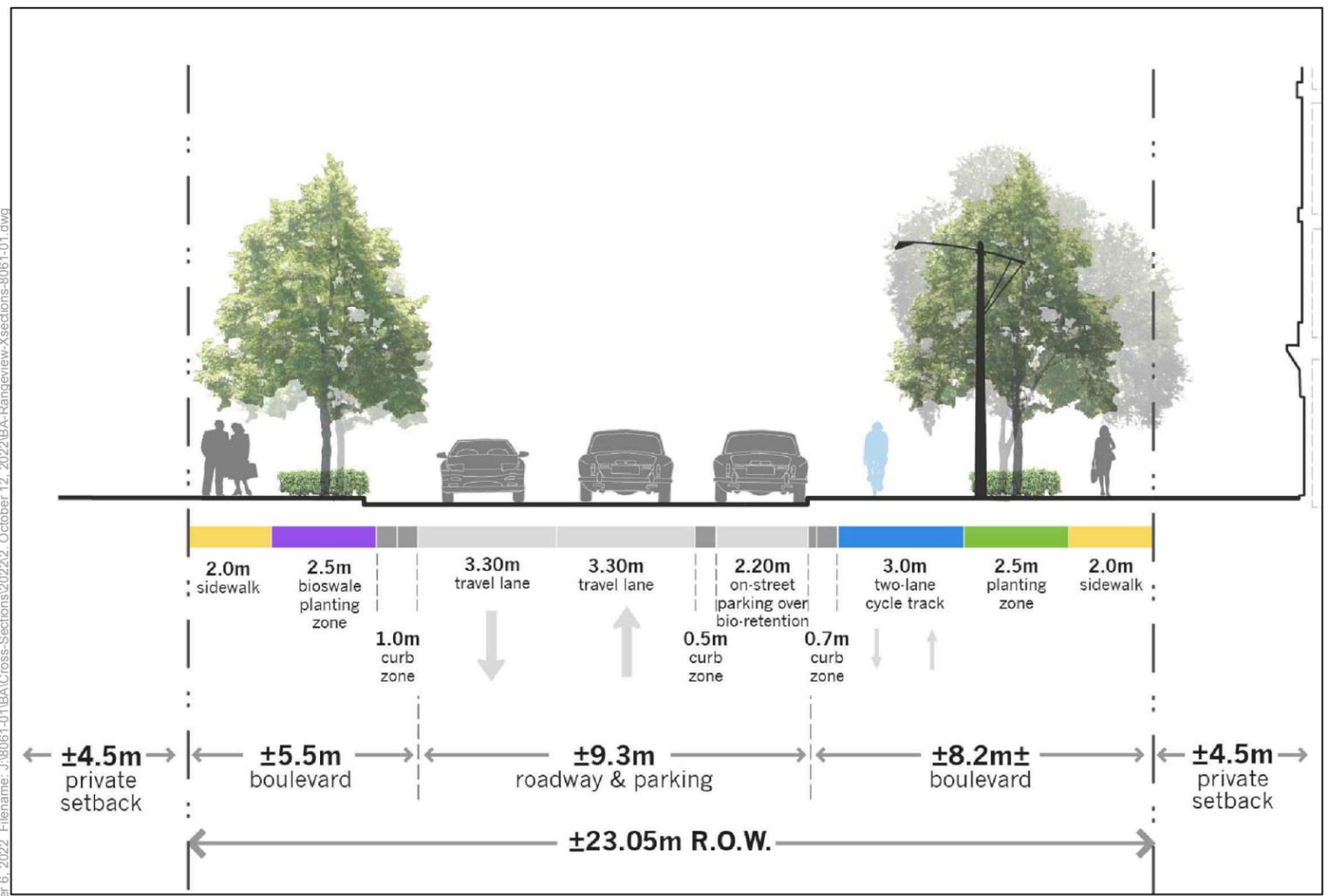
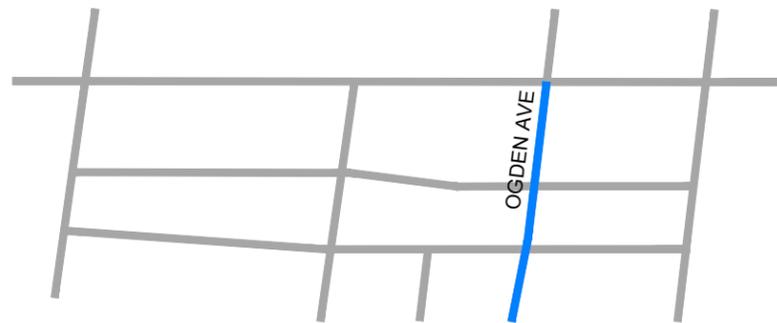


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30.38m MAJOR COLLECTOR

FIGURE 7 LAKEFRONT PROMENADE - FUNCTIONAL PLAN & CROSS-SECTIONS

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23.05m MINOR COLLECTOR

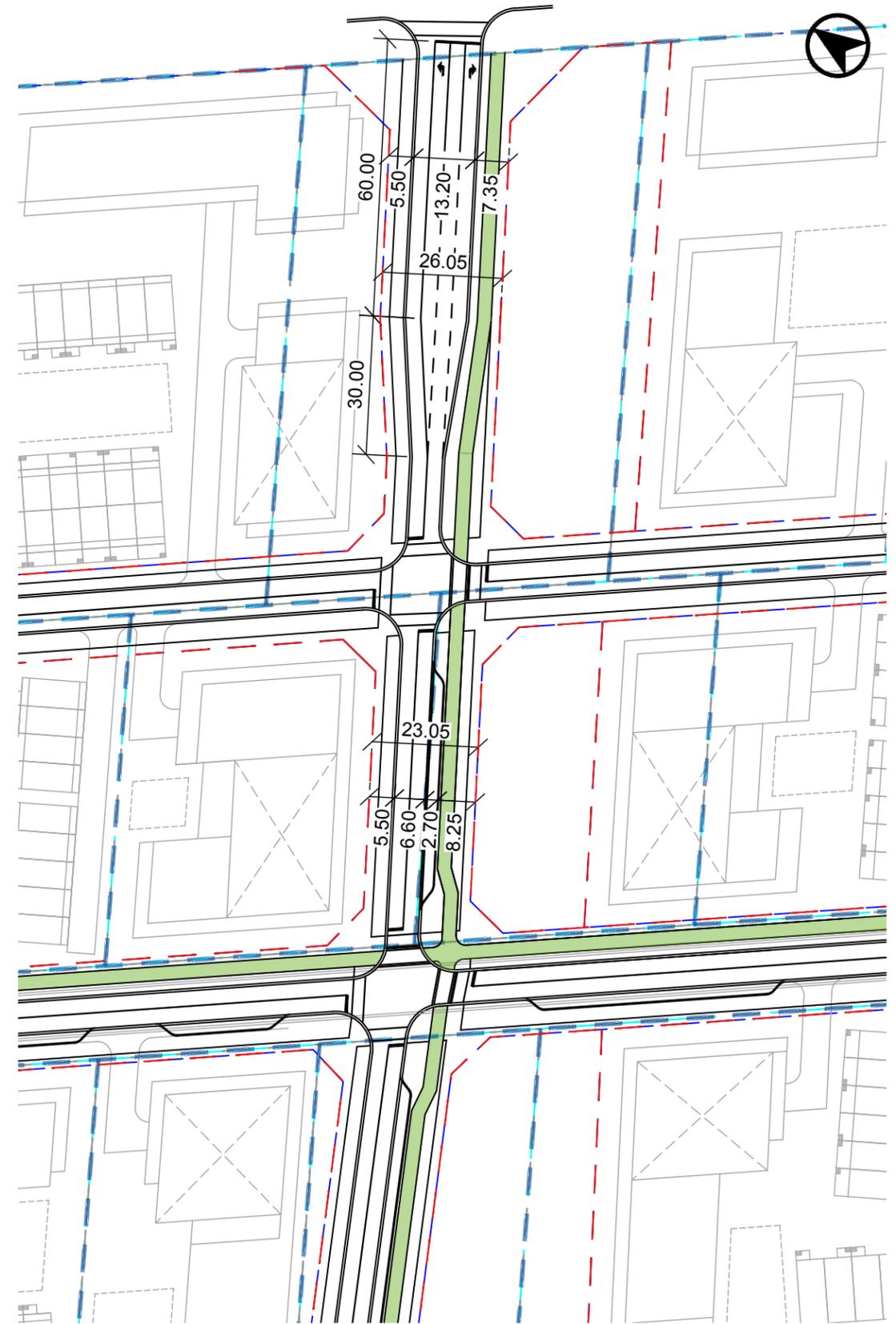


FIGURE 8 PROPOSED OGDEN AVENUE EXTENSION - FUNCTIONAL PLAN & CROSS-SECTIONS

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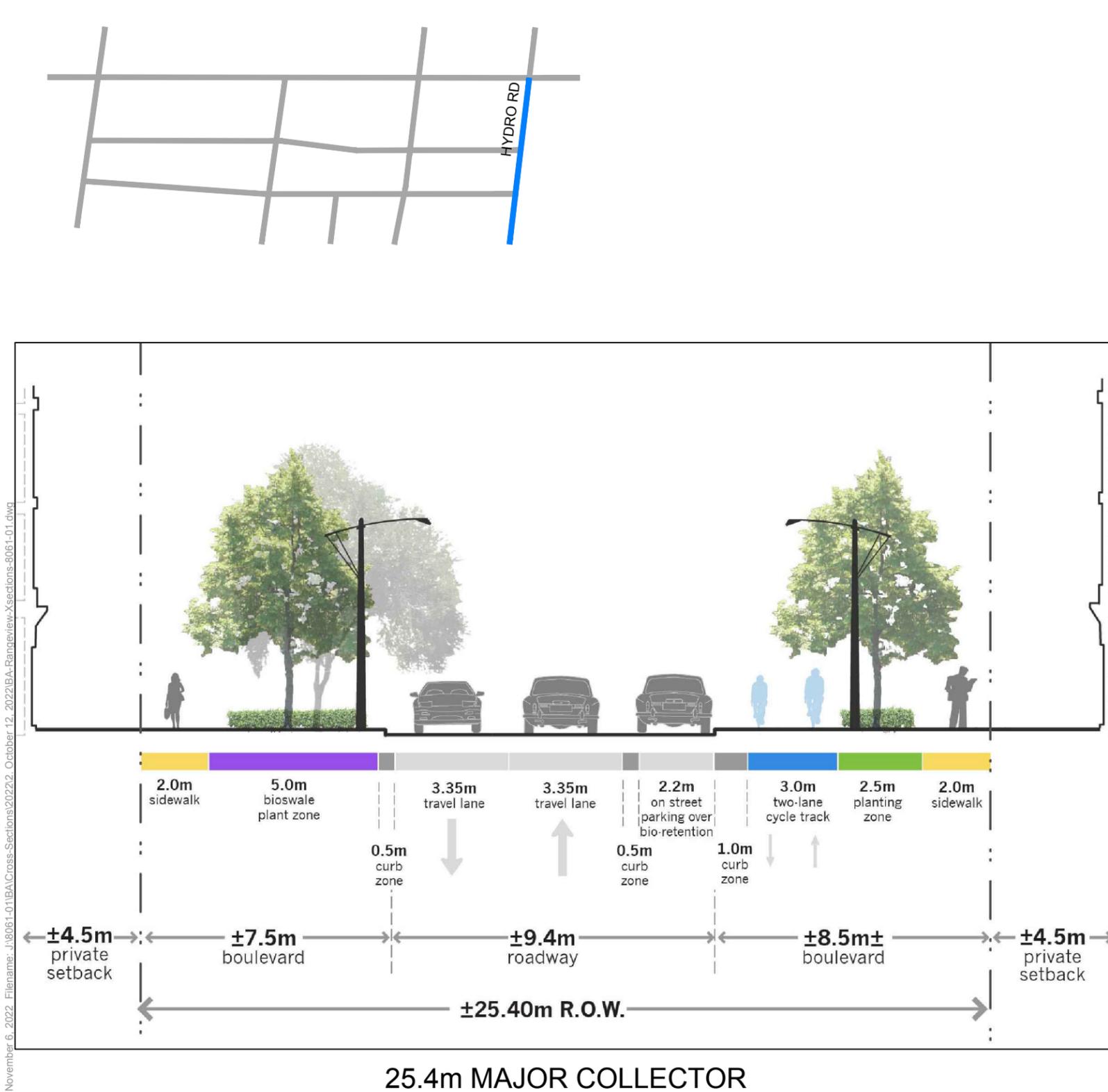
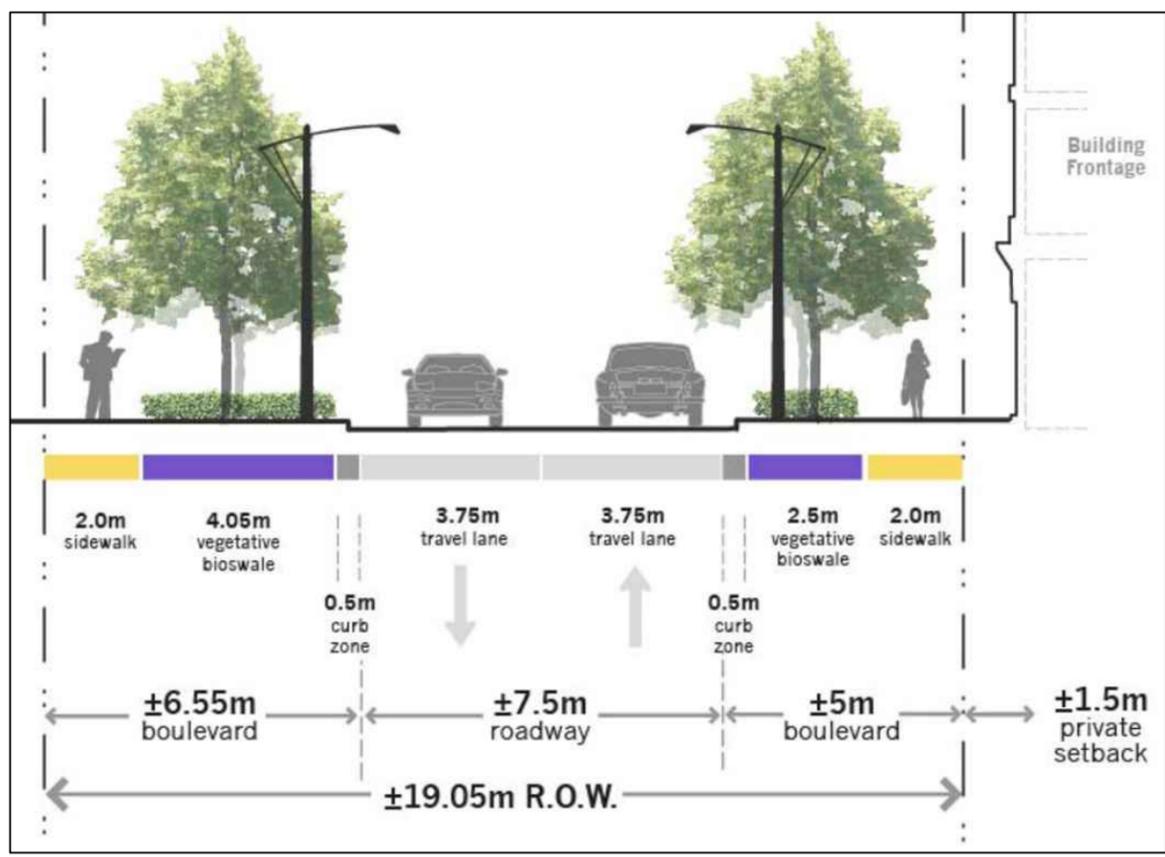


FIGURE 9 HYDRO ROAD - FUNCTIONAL PLAN & CROSS-SECTIONS

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19.05m LOCAL ROAD

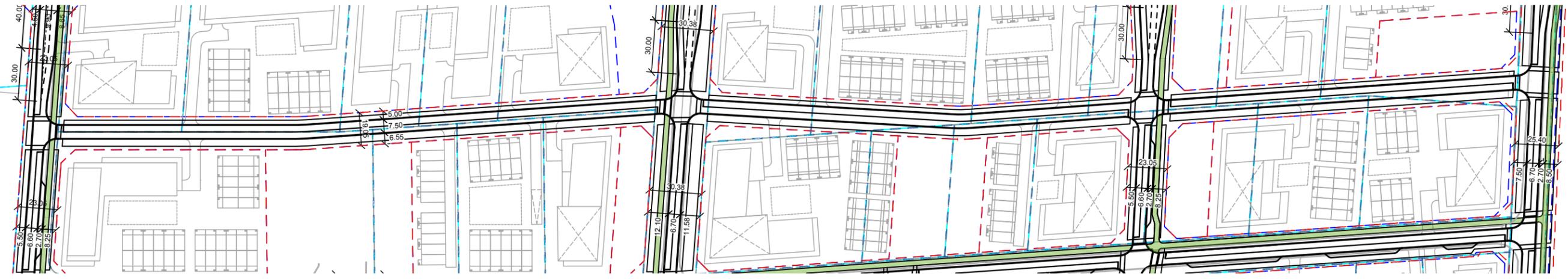
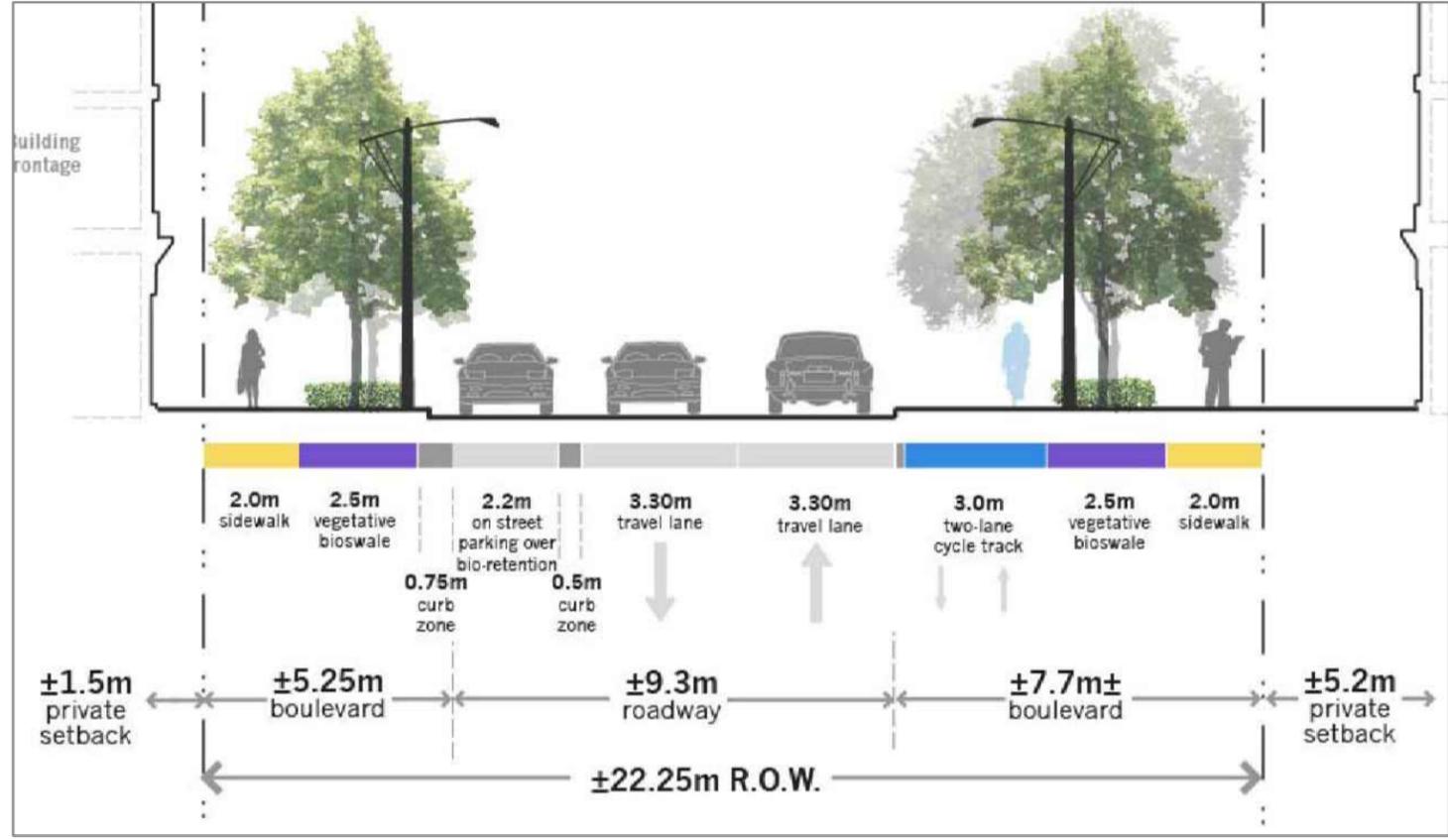
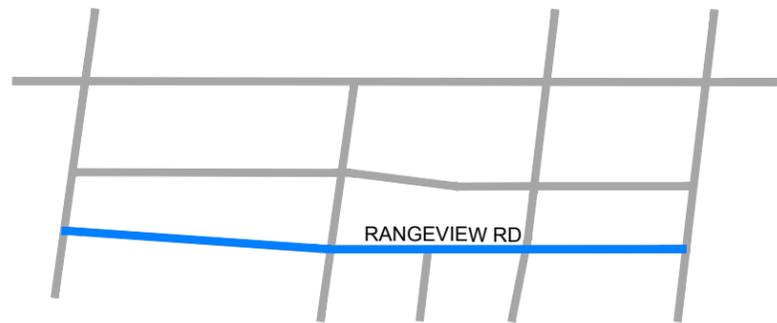


FIGURE 10 PROPOSED STREET 'L' - FUNCTIONAL PLAN & CROSS-SECTIONS

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22.25m MINOR COLLECTOR



FIGURE 11 RANGEVIEW ROAD - FUNCTIONAL PLAN & CROSS-SECTIONS

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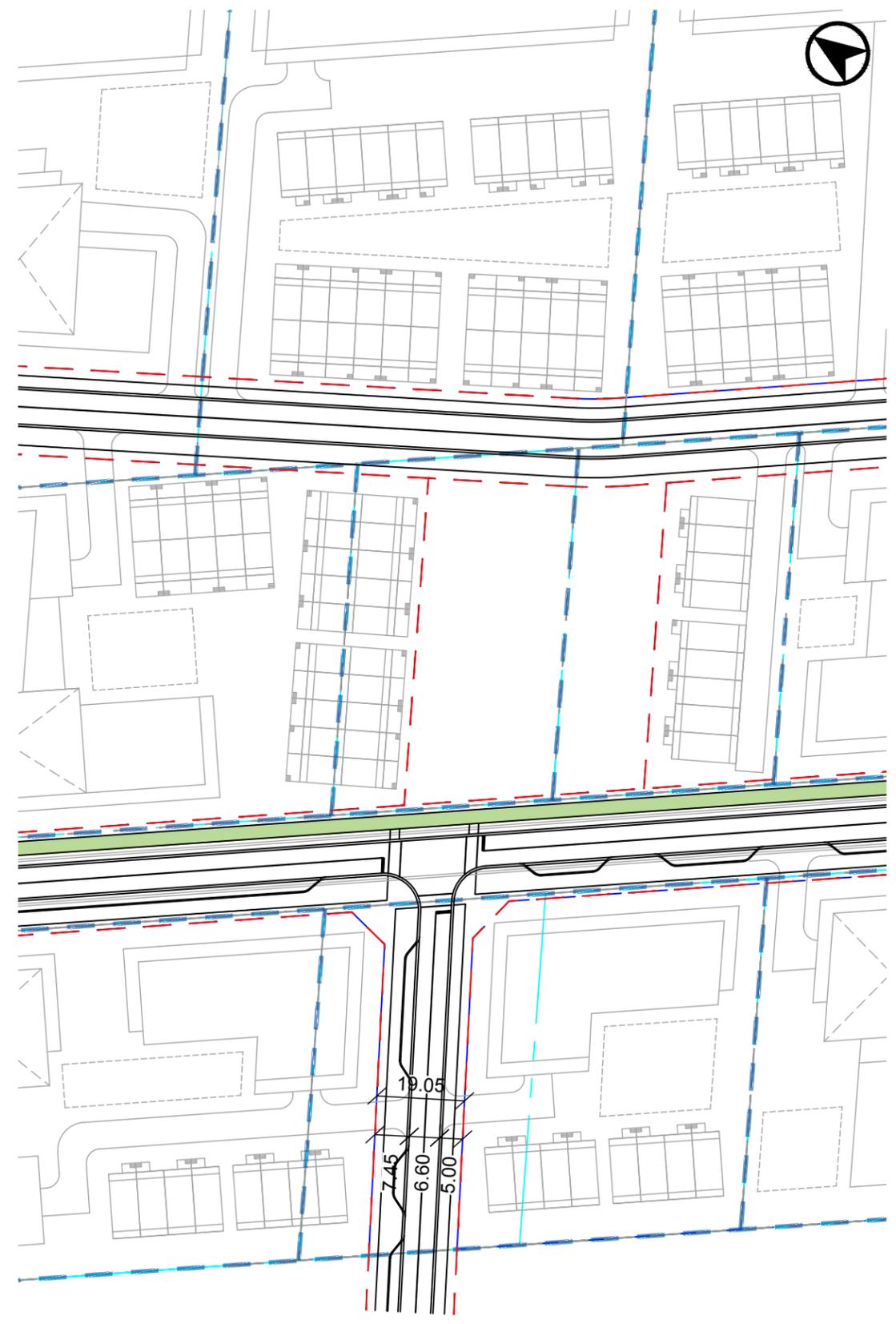
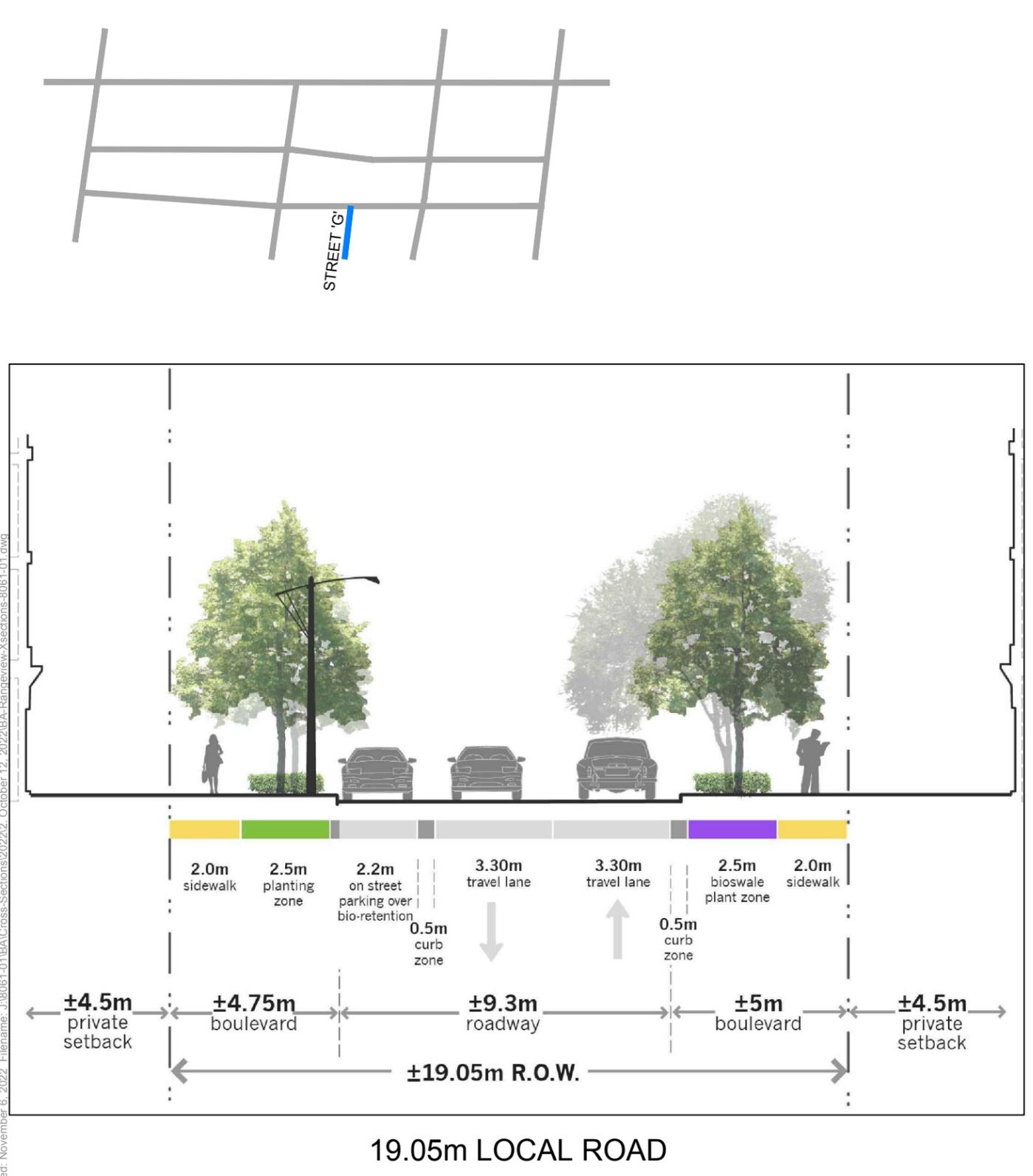


FIGURE 12 PROPOSED STREET 'G' EXTENSION - FUNCTIONAL PLAN & CROSS-SECTIONS

4.2 AREA PUBLIC TRANSIT NETWORK

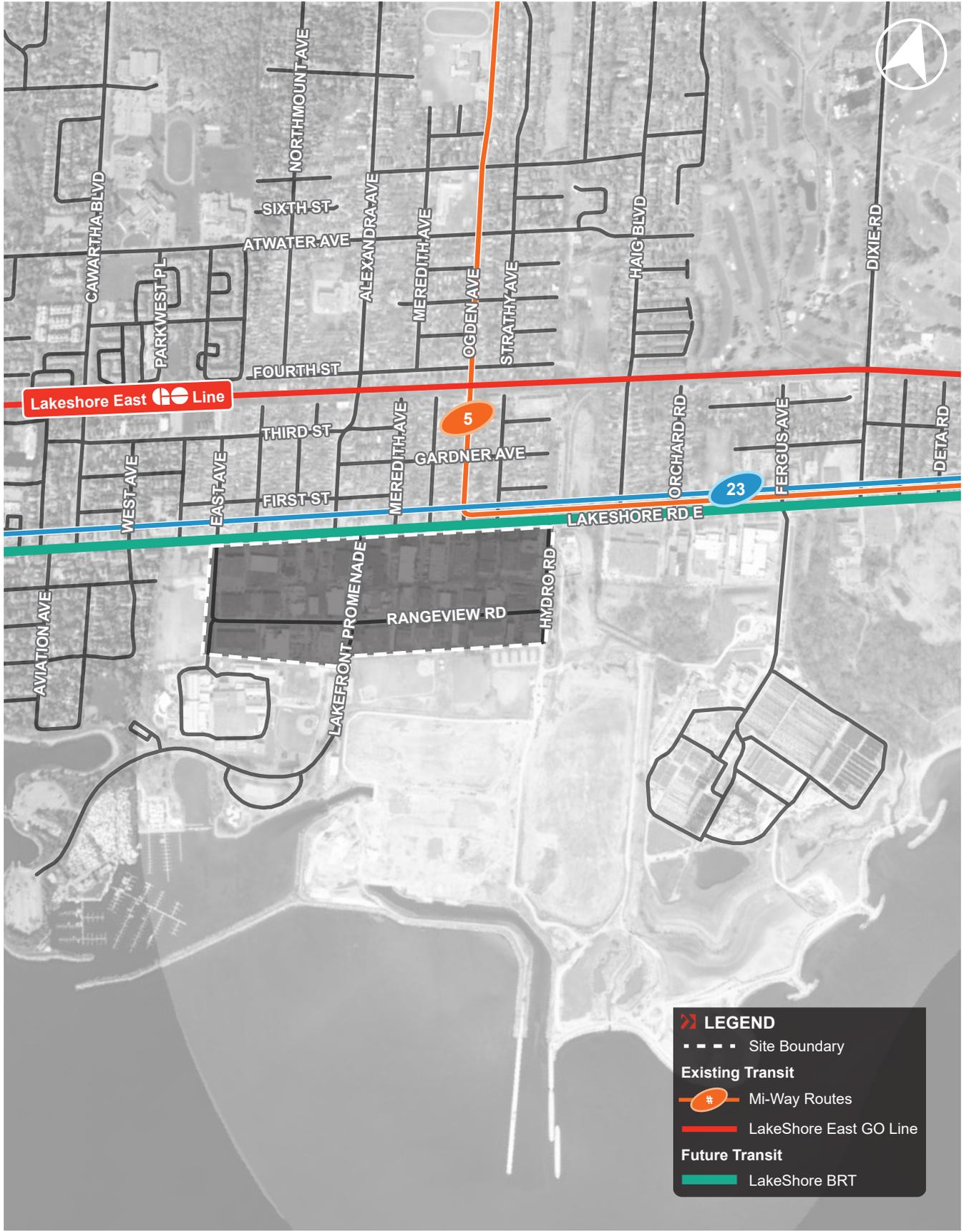
4.2.1 Existing Public Transit Network

The Site’s northern boundary is located immediately adjacent to the two MiWay surface transit routes which provide direct connections to area destinations including Dixie Outlet Mall, Port Credit, and Long Branch GO station. With a transfer at the Long Branch GO Station, the Site is connected to GO Transit (Lakeshore West Line) and TTC bus / streetcar service in the east.

Details regarding the area’s existing transit options are provided in **Table 6** and illustrated in **Figure 13**.

TABLE 6 AREA TRANSIT NETWORK

Number / Name of Service Line		Closest Stop Location	Description
Bus	23 Lakeshore (MiWay)	Several stops along Lakeshore Road East	Route 23 Lakeshore is a local bus route operating primarily along Lakeshore Road East / West, on all days, between the Clarkson GO Station and Long Branch GO Station. Route 23 runs every 17-21 minutes during weekday peak periods. This route connects with numerous other GO Transit, MiWay, and TTC routes.
	5 Dixie (MiWay)		Route 5 Dixie is a local bus route operating primarily along Dixie Road, on all days, between Cardiff Boulevard / Khalsa Drive and the Long Branch GO Station. Route 5 runs every 7-12 minutes during weekday peak periods. This route connects with numerous other GO Transit, MiWay, and TTC routes.



Aerial maps provided courtesy of Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, the GIS User Community and/or Google Earth/Maps.

FIGURE 13 EXISTING AND FUTURE AREA TRANSIT NETWORK

4.2.2 Planned Public Transit Network

4.2.2.1 Lakeshore Connecting Communities Bus Rapid Transit (BRT)

As described in **Section 3.3**, The Lakeshore Connecting Communities TMP sets out a long-term vision for transit and corridor improvements along Lakeshore Road from 2020 to 2041 that will support waterfront development.

Of the transit network alternatives considered in the TMP, the preferred transit solution for the 2041 horizon year is express bus / bus rapid transit (BRT) along the extent of Lakeshore Road in Mississauga (illustrated in **Exhibit 5**). Between East Avenue and Etobicoke Creek (and thus adjacent to the Rangeview Lands), a dedicated right-of-way BRT service is planned within the centre of the Lakeshore Road East ROW. The Lakeshore BRT is planned to be completed in 2027.

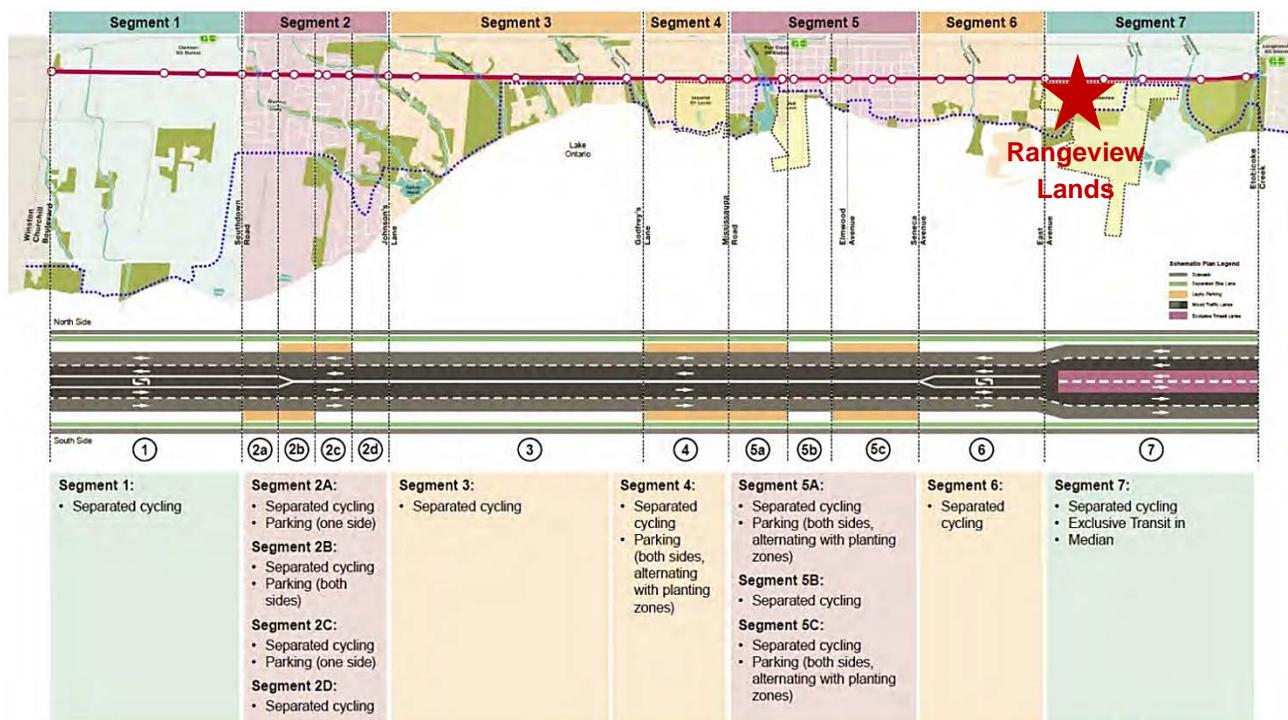


EXHIBIT 5: LAKESHORE BRT PREFERRED RIGHT-OF-WAY (LAKESHORE CONNECTING COMMUNITIES TRANSPORTATION MASTER PLAN: CITY OF MISSISSAUGA / HDR)

The preferred transit solution beyond the 2041 horizon year is an extension of the Toronto Transit Commission (TTC) Waterfront West LRT (or “streetcar”) this is the recommended “ultimate solution.” The streetcar would be extended from Long Branch GO Station to Mississauga Road following a similar alignment (i.e. dedicated ROW to East Avenue; operating in mixed traffic west of East Avenue).



4.2.2.2 Official Plan Transit Network

As part of OPA 89, transit provisions south of Lakeshore Road East were identified, as illustrated below in Exhibit 6.



EXHIBIT 6: LAKEVIEW CHARACTER NODE LONG-TERM TRANSIT NETWORK (CITY OF MISSISSAUGA OFFICIAL PLAN: PART OF SCHEDULE 6 FROM OPA 89)

A route that passes through Rangeview, including Lakefront Promenade and Hydro Road, is identified as a “Future Enhanced Transit Route.”

4.3 AREA CYCLING NETWORK

4.3.1 Existing Area Cycling Network

The existing cycling network within 500 metres of the Site area consists of multi-use trails, park trails, and signed bike routes along all sides of the Site perimeter. These cycling connections provide convenient travel opportunities for residents, employees and visitors of the surrounding area, specifically to travel using non-automobile means.

The existing and future area cycling network is described in **Table 7** and is illustrated in **Figure 14**.

TABLE 7 AREA CYCLING INFRASTRUCTURE

	Route	Type of Cycling Infrastructure	Description
North-South	Ogden Avenue	Signed Bike Route	Signed bike route, shared between cyclists and motorists, that travels along Ogden Avenue from Lakeshore Road East to near South Service Road. Via the Ogden-Isley Pedestrian Bridge, the route continues north via Stanfield Road, accessing The Queensway, Dundas Street East, Bloor Street, Burnhamthorpe Road East, and Eastgate Parkway.
East-West	Waterfront Trail	Park Trail	Park trail that travels along the waterfront, generally south of Lakeshore Road East, providing an east-west connection from Winston Churchill Boulevard, near the City's west limits, to the City of Toronto, beyond the City's east limits.

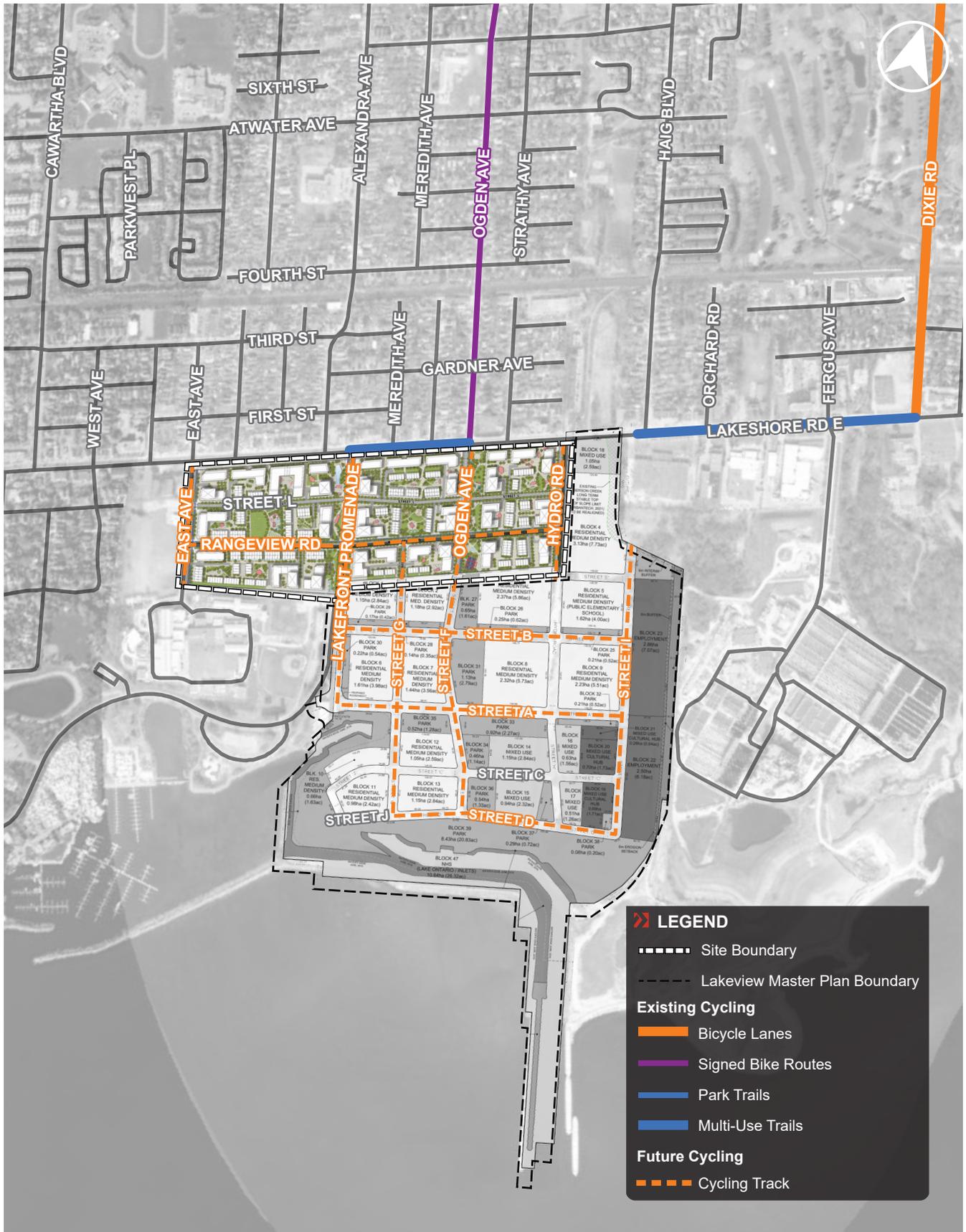
4.3.2 Planned Area Cycling Network

4.3.2.1 Lakeshore Connecting Communities TMP

The Lakeshore Connecting Communities Transportation Master Plan (TMP), introduced in **Section 3.3**, proposes to incorporate uni-directional, off-road cycling facilities in each boulevard along the Lakeshore Road East corridor. The Site area is located in Segment 7 of the study corridor and the preferred ROW alternative is to construct separated 2.0 metre bike lanes along both sides of the Lakeshore corridor with a 0.5 metre buffer from the vehicular travel lane.

It is noted that the City of Mississauga Cycling Master Plan 2018 also includes this route.





LEGEND

- Site Boundary
- Lakeview Master Plan Boundary
- Existing Cycling**
 - Bicycle Lanes
 - Signed Bike Routes
 - Park Trails
 - Multi-Use Trails
- Future Cycling**
 - Cycling Track

Aerial maps provided courtesy of Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, the GIS User Community and/or Google Earth/Maps.

FIGURE 14 EXISTING AND FUTURE AREA CYCLING NETWORK

4.3.2.2 City of Mississauga OPA 125

As part of OPA 125, cycling route provisions south of Lakeshore Road East were identified, as illustrated below in **Exhibit 7**. Within OPA 125, a series of 'Primary Off-Road Routes' and 'Primary On-Road / Boulevard Routes' are illustrated primarily within Lakeview Village as part of the street network planned for the latter.

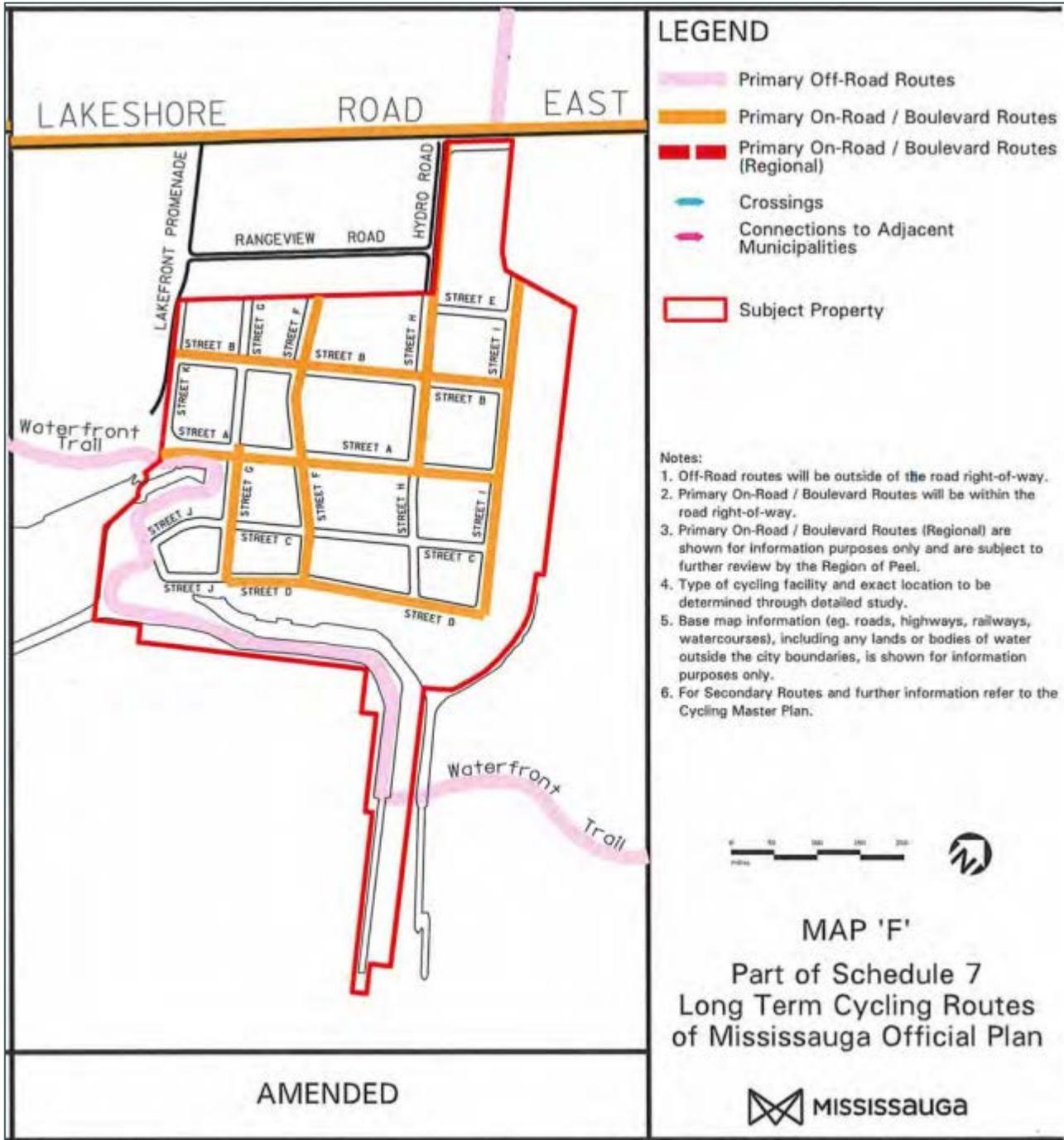


EXHIBIT 7: LAKEVIEW VILLAGE CHARACTER NODE LONG-TERM CYCLING ROUTES (CITY OF MISSISSAUGA OFFICIAL PLAN: PART OF SCHEDULE 7 FROM OPA 125)

4.4 AREA PEDESTRIAN CONTEXT

4.4.1 Existing Pedestrian Context

Within a 500-metre radius of the Site, numerous parks, such as the Douglas Kennedy Park and volleyball courts, can be accessed as well as various amenities along the Lakeshore corridor such as a dentist, pharmacy, convenience store, health centre, fast food outlets and restaurants, among other retail services. The Site is also within walking distance of a plaza which includes a drug store, Canada Post outlet, and multiple eateries, the Lakeside Montessori School, and various places of worship. The remainder of the Site area includes commercial buildings and warehouses oriented towards automobile repair services, industrial manufacturing and self-storage.

In the vicinity of the Site, the existing pedestrian environment facilitates pedestrian movements with efficient connections. Lakeshore Road East has sidewalks on both sides of the roadway, although the sidewalks along the south side are directly adjacent to vehicle travel lanes. There is opportunity to improve the pedestrian facilities along the local roads within and bounding the Site, including Rangeview Road, Hydro Road, Lakefront Promenade, and East Avenue, as each of these roads only have sidewalk facilities on one side of the roadway. Moreover, signalized intersections and marked pedestrian crossings are provided along Lakeshore Road East at East Avenue and Lakefront Promenade, but not at Hydro Road. All sidewalks within and bounding the Site have curb cuts at intersections.

4.4.2 Planned Pedestrian Context

The Site includes a proposed street network that will develop an urban pedestrian environment with wider sidewalk widths on most of the proposed streets and pedestrian mews areas to generate pedestrian activity. Further detail pertaining to the planned street network including detailed design and cross-sections is included in **Section 4.1.2.3**.

Moreover, the planned Lakeview Village development, introduced in **Section 3.3**, will also provide a high quality, fine-grain pedestrian environment to the south of the Site.

The proposal for a new traffic signal on Lakeshore Road East at Hydro Road, will provide additional protected crossing opportunities for pedestrians. The pedestrian network proposed for Rangeview will connect to Lakeview Village's pedestrian network, with connectivity to Lake Ontario and beyond.



5.0 OPPORTUNITY: CAWTHRA GO TRANSIT STATION

Given the evolution and advancement of GO Transit in the Greater Toronto & Hamilton Area, there is potential to improve GO Transit in the vicinity of the Site with the addition of a new GO Station. Based on the proximity to local multi-modal connections and equidistance between nearby existing GO Stations on the Lakeshore West Line (approximately 2.5 km from Port Credit GO Station and approximately 2.5 km from Long Branch GO Station), a reasonable location for a new station would be east of Cawthra Road and north of Lakeshore Road East.

Within this section, a summary of ongoing GO Transit network and station planning is provided as context for the concept to introduce a GO Station to the local area which could be named Cawthra GO Station. The relevance of a potential Cawthra GO Station is that it would greatly enhance the multi-modal transportation options available to future residents and visitors to both Rangeview and Lakeview Village.

It is important to note however that as outlined in **Section 8.0**, the traffic analysis undertaken for this report confirms that the future transportation network, even **without** a new GO Station in the area, can acceptably accommodate the expected travel demands of the Rangeview Site with 5,300 residential units, along with the travel demand generated by Lakeview Village and Serson.

5.1 CAWTHRA GO STATION HISTORY

Between 2013 and 2015, Metrolinx undertook a study to identify new stations to add to the regional rail network. At this time, a “Cawthra Road GO Station” was on a list of approximately 120 “possible stations” that were analyzed. Possible Stations were scored based on three criteria: 1) transportation connectivity; 2) plans and land use; and 3) technical (construction & design). By March 2015, the list was reduced to 50 stations and Cawthra Road GO Station was no longer in consideration.

5.2 GO TRANSIT EXPANSION / ELECTRIFICATION UPDATE

Metrolinx is undertaking a “GO Expansion” project (formerly “Regional Express Rail”) to convert most existing rail lines (including Lakeshore West) to electric trains. The project will enable all-day, two-way service with 15-minute headways or better. A key benefit of electrification is quicker acceleration/deceleration which unlocks the potential to add more stations to electrified lines. In February 2022, Metrolinx and Infrastructure Ontario announced “Onxpress Transportation Partners” (consortium including Aecon, FCC Construcción S.A., (FCC), Deutsche Bahn, and Alstom) as the winning proponent of the program. Onxpress won the bid due to a proposal with service levels exceeding the 2018 Metrolinx Business Case Analysis, including:

- During weekday daytime periods, between 8-18 trains per hour (or 3-8 minute headways) on the busiest routes, like Lakeshore West; and
- During evenings and weekends, most stations will have 6-15 minute headways.

Construction is expected to begin in 2023, with incremental improvements to service beginning in 2025-2026.



5.3 EXISTING DEMAND FOR A CAWTHRA GO STATION

Of the three criteria utilized by Metrolinx to assess new stations from 2013-2015, a potential Cawthra GO Station merits new assessment based on two: “Transportation Connectivity” and “Plans and Land Use”.

5.3.1.1 Transportation Connectivity

As is outlined in this report in **Section 3.3** and Section **4.2.2**, a BRT in a dedicated right-of-way within Lakeshore Road East adjacent to the Site is expected to be substantially completed by 2027. There is potential for the BRT and the parallel GO Transit line to be complimentary and together, to influence travel behaviour and reduce vehicle trips.

5.3.1.2 Plans and Land Use

As is outlined in **Section 3.3**, the Lakeview Waterfront Major Node Character Area in the City of Mississauga Official Plan was recently amended in November 2021 (OPA 125). Current development provisions include 11,750 residential units, 750,000 SF office GFA, 750,000 SF research & development GFA, 165,000 SF retail GFA, 850 student elementary school, 39 student daycare, approved “as-of-right.” There is substantial ridership potential if a GO Station was located in close proximity to this area.



6.0 TRANSPORTATION DEMAND MANAGEMENT PLAN

The 2020 Ontario Provincial Policy Statement (PPS) and the City of Mississauga Official Plan encourage Transportation Demand Management (TDM) as a strategy and embrace a range of TDM measures. TDM strategies will be incorporated into the Site to align with operational and functional needs including consideration for broader area infrastructure requirements.

As per the Region of Peel Sustainable Transportation Strategy, 2018-2022, TDM is: “Transportation demand management (TDM) measures encourage people to take fewer and shorter vehicle trips to support transit and active transportation choices, enhance public health and reduce harmful environmental impacts.”

The City of Mississauga Official Plan includes the following policies regarding TDM:

- 8.1.8: “To better utilize existing infrastructure, Mississauga will encourage the application of transportation demand management (TDM) techniques, such as car-pooling, alternative work arrangements and shared parking.”
- 8.4.7(f): “coordinating parking initiatives with transportation demand management (TDM) programs in order to effectively link transit planning, parking and other related issues in a comprehensive manner”
- 8.5.2: “Mississauga will work with other levels of government, agencies and the private sector to encourage TDM measures.”
- 8.5.7: “Prior to approval of development applications, particularly those that will generate significant employment opportunities, a TDM plan may be required ...”

6.1 OBJECTIVE & GOALS

Transportation Demand Management (TDM) strategies have been developed for the proposed development to guide the provision of viable alternative personal transportation options beyond the single occupant, private automobile. The overarching goals of the TDM strategy are to:

- Significantly reduce the number of private automobile-based trips made to/from the site;
- Promote the use of more active and sustainable modes of transportation;
- Increase travel efficiency and transit linkages;
- Emphasize internal trips by non-auto modes of travel; and
- Reduce climate change emissions, air quality and overall health.

To achieve the objective and goals, a series of mobility strategies and corresponding TDM measures are outlined and have been incorporated into the design and future operations of the proposed Site.



6.2 STRATEGIES

TDM strategies include the application of various site design elements and operational policies that have the goal of redistributing and reducing the travel demand of a project, specifically that of single occupancy private vehicles. The proposed TDM objectives can be achieved by influencing mobility choice and patterns through the following site plan strategies:

- Create a Complete Connected Community
- Enhance the Public Realm and Pedestrian Mobility
- Facilitate and Increase Transit Use
- Encourage Cycling Use
- Provide Last-Mile solutions (micro-mobility)
- Low Minimum Parking Requirements
- Encourage Reduced Auto Ownership and Use

Several of TDM strategies identified above (i.e. public transit fare integration and the implementation of a bike share and/or scooter share network) require additional support at the Municipal, Regional, and / or Provincial levels to truly enable a shift in travel behaviour for residents, visitors and employees of the site.

This comprehensive framework has been developed to serve as a guideline for the implementation of effective TDM strategies at the master plan level and will continue to be refined through the site design stage and in its operations following the full redevelopment of the property.

6.3 PROPOSED TDM MEASURES

6.3.1 Create a Complete Connected Community

The proposed development incorporates a mix of mutually-supportive land uses, inclusive of residential and retail, located adjacent to significant employment land uses within Lakeview Village, that are integrated by a new street network that has been designed to facilitate and encourage transit and active modes of travel throughout the Site.

The provision of mutually-supportive land uses fosters a relationship across the Site that allows each use to serve and support one another. This represents a substantial shift from the existing building form to a more walkable, urban, mixed-use neighbourhood. This dynamic combination of uses encourages the “internalization” of site trips, both within the site and within the neighbourhood; there will be many trips that could be made within walking / cycling distance. The need for residents, employees, and visitors to make trips outside of the site and surrounding area to address daily needs will be reduced, thereby, reducing the need for trips to be made utilizing automobiles.

Furthermore, the design of the street network takes into account the needs of all modes of travel and ensures the development of a complete network. The proposed street network creates fine-grain street and block connections, creating a level of porosity across the site that will enable efficient pedestrian and active travel.

Numerous park / open spaces are also proposed throughout the site which will improve the at-grade permeability of the area and integrate the site with the local pedestrian system.

Finally, the proposed density, mix of uses, and enhanced street network provides opportunities to support micro mobility options that provide strong non-auto connections to the surrounding area.



TDM Considerations

- Complimentary mix of land uses will result in the internalization of daily trips within the site and neighbourhood that can be made by foot / bike, reducing the need for a personal automobile;
- Design of a fine-grained, permeable street network that supports all modes of travel; and
- Proposed density and mix of land uses provide greater opportunities to support local area transit services and other micro-mobility options that encourage non-auto modes of travel to the surrounding area.

6.3.2 Enhance Public Realm and Pedestrian Mobility

The Site, in its current orientation, was designed to prioritize the movement of vehicles with an emphasis on large surface parking lots serving automobile-oriented retail and automotive uses. For the most part, the surrounding streets are less desirable places to walk with limited pedestrian crossing opportunities and sidewalks generally only on one side of the road.

The proposed plan contains elements that aim to emphasize the pedestrian realm. Enhanced pedestrian facilities (wide sidewalks, attractive boulevards) and off-street connections through the Site will make walking a more attractive option.

Streetscape improvements will improve pedestrian comfort; these could include (but are not limited to) expanding sidewalk widths, increasing crossing opportunities, and providing street furniture and landscaping.



Convenient and direct pedestrian connections to area transit stops will be prioritized in the development of the Master Plan to ensure that public transit remains the preferable mode for trips that are to be made outside the local neighbourhood.

As much as possible, access to loading and parking facilities will be strategically located and consolidated in the site plan to minimize interference with the vibrant pedestrian realm.

Ultimately, each of these measures that will be integrated into Site plan designs will increase and facilitate pedestrian activity emanating from the site.

TDM Considerations

- Streetscape improvements will improve pedestrian comfort.
- The proposed street network and development blocks have been designed keeping in mind the need for direct and convenient pedestrian connections throughout the site.
- Access to loading and parking facilities will be minimized and strategically located in the Site Plan to minimize interference with the vibrant pedestrian realm.

6.3.3 Facilitate and Increase Transit Use

The northern boundary of the Site is adjacent to the planned Lakeshore BRT which will facilitate access across the extent of Mississauga’s waterfront and several GO Stations. Given the size of the Site, providing strong active linkages and other last-mile solutions are essential to connect residents and visitors across the site to the area transit network. The proposed street and active network for the Site was designed to facilitate transit access for all users by emphasizing the public realm and creating direct pedestrian connections.



The integration of local transit from the onset of development is a high priority for the Site in order to encourage residents and visitors to utilize transit as a primary mode of travel and build travel behaviours that are supportive of the TDM Plan.

To this end, transit incentives (i.e. pre-loaded PRESTO cards) will be offered to first-time occupants of residential units to persuade them to use public transit for a period of time and establish this modal choice as a habit.

Notwithstanding that the Site is located along the Lakeshore Road corridor and therefore in proximity to the TTC at Long Branch Station, there is currently no fare integration between these transit agencies (i.e. MiWay and TTC). In order to encourage transit as a viable (and affordable) mode choice, Peel Region, the City of Mississauga and the City of Toronto should consider possible fare integration to promote transit use.

Lastly, as outline in **Section 5.0**, the opportunity to locate a new GO Station east of Cawthra Road along the Lakeshore West GO Transit rail line should be considered.

TDM Considerations

- Facilitate connections to and from public transit (along the Lakeshore Road East corridor) from the on-set of development to achieve desired modal shift.
- Provide a well-connected pedestrian network facilitating transit access for all users.
- Provide pre-loaded PRESTO cards to all first-time occupants of residential units.
- Encourage Peel Region, the City of Mississauga, and City of Toronto to consider possible fare integration opportunities to promote regional transit use.

6.3.4 Encourage Cycling Usage

To encourage cycling as a viable mode of travel for residents and visitors of the proposed development, significant infrastructure investments have been considered (cycling lanes, bicycle parking, bicycle repair facilities).

Most of the proposed street network will include two-way, in-boulevard cycle tracks (see **Section 4.1.2.3**) and connect to an external street (Lakeshore Road East) that is planned to be a cycling corridor as part of the Lakeshore Connecting Communities BRT (see **Section 4.3.2**).

Each development block is intended to include secure bicycle parking for residents and employees and at-grade or below grade bicycle parking for visitors. Bicycle parking provisions will be consistent with the minimum bicycle parking requirements of Zoning By-law 0225-2007 which were recently updated in 2022 as a result of the *Parking Regulations Study*.

Bicycle repair facilities may be provided within each development's bicycle parking facility. With cycling uptake expected to be high, providing infrastructure to assist with quick and easy bicycle repairs would add convenience for prospective cyclists.



TDM Considerations

- Two-way, in-boulevard cycle tracks are provided along internal streets that will connect to the planned regional cycling network.
- Secure bicycle parking will be provided for residents and at-grade bicycle parking for visitors throughout the site.
- Bicycle repair facilities will also be integrated into each development block in order to facilitate quick and easy bicycle repairs.

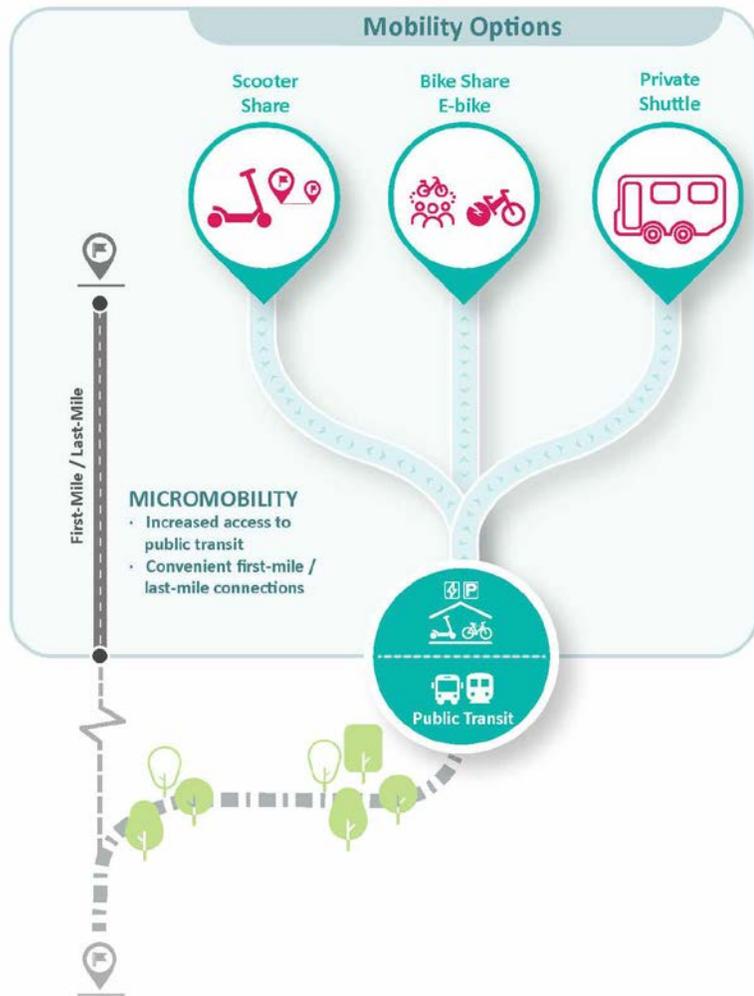
6.3.5 Micro-Mobility

In order to shift travel behaviour towards more sustainable modes of travel, the provision of convenient first-mile / last-mile trip connections to public transit or local amenities are required. These solutions help fill gaps in the area transportation network that otherwise would result in people opting for a private vehicle (i.e. needing to walk over a kilometre to a transit stop).

Bicycle and scooter sharing form part of the overall Mobility Strategy to maximize connections to transit and encourage sustainable local travel. This type of shared system, if deployed, would provide excellent opportunities to connect area residents to future rapid transit along Lakeshore Road East (and a potential Cawthra GO Station). Longer distance cycling trips to destinations like Long Branch GO station would be achievable with the planned implementation of a continuous cycling corridor on Lakeshore Road East connecting the site with the train station.

The City of Mississauga is currently undertaking an “E-Scooter Pilot” including “studying how a shared program of publically available bicycles, pedal-assist bicycles (e-bikes) or electric scooters (e-scooters) could be used for travel in Mississauga.” In December 2020, City Council approved the implementation of an interim e-scooter strategy intended to operate within the five-year e-scooter pilot program launched by the Province of Ontario. In Mississauga, e-scooters are permitted to operate on public roadways with a posted speed limit of 50km/h or less and on cycling infrastructure, but not within parks or off-road trails.

The provision of micro mobility solutions (including bike share, scooter share, bicycle parking) should be strategically located throughout the site within smaller hub areas to ensure proximate access for residents and visitors.



TDM Considerations

- Reduced resident parking ratios that are reflective of contemporary parking policy in Canada, good transportation planning, and the good transit afforded to the site (planned Lakeshore BRT).
- Provision of a shared pool of visitor parking will help maximize efficiency of parking across the site.

6.3.6 Reduced Parking Provisions

An effective TDM measure that can be applied to the proposed development is the constraint of on-site vehicular parking supply. Appropriate vehicle parking management and the provision of an extensive suite of TDM measures are mutually supportive. If vehicle parking is oversupplied across the Site, residents and visitors would have less incentive to utilize the alternative, non-auto options that are available to them due to the site's favourable location and that are enhanced as part of this project. Likewise, a modest parking supply without appropriate TDM measures would negatively affect local traffic and place undue parking demand on the surrounding area.

Culminating in 2022, the City of Mississauga reviewed and updated the off-street parking regulations of Zoning By-law 0225-2007. Notably, precinct areas were introduced to stipulate different minimum parking requirements based on location within the City, influenced by proximity to higher order transit service and other factors.

The Site was identified as Precinct Area 3 and therefore, some of the following minimum parking requirements are relevant:

- Condominium Apartment, residents: 1.0 parking space per unit
- Rental Apartment, residents: 0.90 parking spaces per unit
- Apartments, visitors: 0.2 parking spaces per unit

Notably, other cities in Canada have updated minimum parking requirements in their Zoning By-laws resulting in the following:

- London (2008): Zero parking minimum downtown
- Ottawa (2016 & 2018): Zero parking minimum downtown & at LRT Stations; minimum 0.5 spaces per unit in "urban" & "inner suburban" areas
- Edmonton (2020): Zero parking minimum city-wide
- Brampton (2021): Zero parking minimum downtown and rapid transit corridors
- Vaughan (2021): minimum 0.4 spaces per unit in Vaughan Metropolitan Centre area
- Toronto (2021): Zero parking minimum city-wide

A reduced parking supply compared to the new requirements of Zoning By-law 0225-2007 will be pursued as part of future applications reflecting contemporary advancements in parking policy across Canada and reflecting good transportation planning as part of this TDM Plan.

The adoption of shared parking spaces between non-residential uses (residential visitors, commercial, retail, etc.) to maximize efficiency based on typical parking utilization patterns will also be advanced.

TDM Consideration

- Support the provision of bicycle and/or scooter sharing on-site to connect residents / visitors to local transit or area amenities.

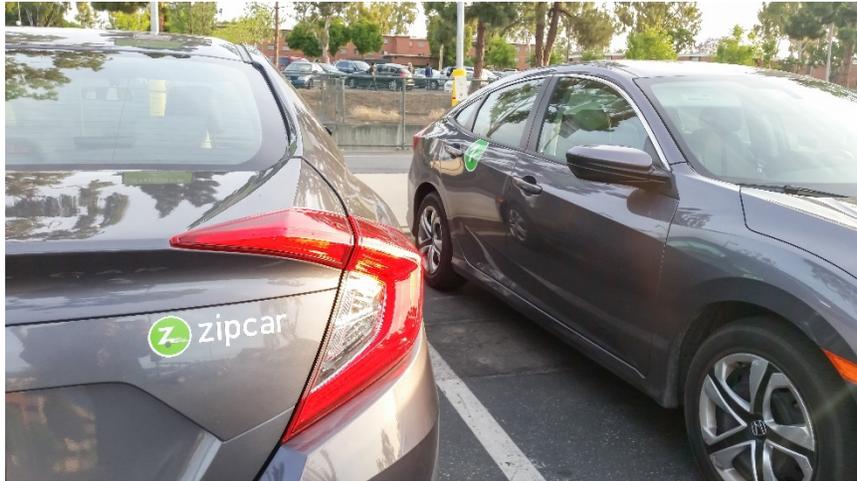


6.3.7 Encourage Reduced Auto Ownership & Use

The provision of car-sharing programs is an important TDM measure because it allows residents to use automobiles as needed without requiring them to own a vehicle. By nature, this means that they make less vehicular trips, directly reducing the amount of vehicular travel emanating from the site.

While there are currently minimal car-sharing services provided in Mississauga, should these services become available, the Site would be an excellent candidate for these services.

Car-share vehicles on-site will be supported, affording an attractive alternative to vehicle ownership for future residents.



TDM Considerations

- Supporting the provision of car-share vehicles on-site to facilitate vehicle trips, as needed, as an alternative to car ownership.

7.0 MULTI-MODAL TRAVEL DEMAND FORECASTING

7.1 TRAFFIC ANALYSIS SCENARIOS

7.1.1 Summary of Traffic Analysis Scenarios

To develop the traffic analysis scenarios for this study, a number of development thresholds were tested for Rangeview to better understand the traffic-related impacts on the overall area road network. Each scenario tested was based on BA Group’s understanding of the approvals for the Lakeview Village site and reflected the timing of the construction of key north-south roadway links (i.e. the extension of Ogden Avenue from Lakeshore Road East to the property line, just south of Rangeview Road and the connection of Haig Boulevard to Lakeshore Road East), along with new internal roads.

As summarized in **Table 8**, each scenario considered the total number of residential units for both Rangeview and Lakeview Village, the total non-residential GFA for Rangeview and Lakeview Village, and the road network and intersection improvements that would be in place at the time of development. The development of the Serson lands was only considered as part of Scenario 3A, with the connection of Haig Boulevard. The details of the multi-modal travel demand assessment for each scenario are provided in the following sections. The details of the traffic capacity analysis are provided in **Section 8.0**.

TABLE 8 TRAFFIC ANALYSIS SCENARIOS

Development	Scenario 1 (2031): No Ogden No Haig (with road improvements) ¹	Scenario 2 (2041): Phase 1 + Ogden connected to Lakeshore Road	Scenario 3A (2041): Phase 2 + Haig connected to Lakeshore Road	Scenario 3B (2041): Phase 2 + Dual NBL turns at Lakefront Promenade / Lakeshore Road (Haig not connected)
Rangeview	2,500 units + 0% non-residential	3,700 units + 100% non-residential	5,300 units + 100% non-residential	5,300 units + 100% non- residential
Lakeview Village	7,500 units + 1.0M ft ² non-residential	8,050 units + 1.5M ft ² non- residential	8,050 units + 1.5M ft ² non- residential	8,050 units + 1.5M ft ² non- residential
Serson	0%	0%	100%	0%
Total	10,000 units	11,750 units	13,350 units	13,350 units

7.1.2 Proposed Road Improvements

A summary of the road improvements considered for each scenario is outlined below. It is important to note that in consideration of the traffic capacity analysis, in addition to the road improvements planned for Phase 1 and 2 (extension of Ogden Avenue from Lakeshore Road East to Rangeview Road), **either** the connection of Haig Boulevard (Scenario 3a) **or** the dual northbound left-turn phase at Lakeshore Road East at Lakefront Promenade (Scenario 3b), would be required to accommodate 13,350 residential units.



Scenario 1

The road improvements considered to be complete as part of Scenario 1 are as follows:

- BRT on Lakeshore Road East;
- Construction of westbound right-turn lane at Cawthra Road and Lakeshore Road East;
- Construction of westbound right-turn lane at Dixie Road and Lakeshore Road East;
- Construction of eastbound right-turn lane at Lakefront Promenade and Lakeshore Road East;
- Northbound lanes reconfigured at Lakefront Promenade and Lakeshore Road East to include a dedicated left-turn lane and share through/right lane;
- Construction of eastbound right-turn lane at Hydro Road and Lakeshore Road East;
- Northbound lanes reconfigured at Hydro Road and Lakeshore Road East to include a dedicated left-turn lane and a shared left/through/right lane;
- Signalization of Hydro Road and Lakeshore Road East intersection, as per Lakeshore Connecting Communities BRT roll plan drawings.

Scenario 2

The road improvements considered to be complete as part of Scenario 2 include the road improvements proposed as part of Scenario 1, in addition to the completion of the extension of Ogden Avenue from Lakeshore Road East to Rangeview Road.

Scenario 3A

The road improvements considered to be complete as part of Scenario 3A include the road improvements proposed as part of Scenario 1 & 2, in addition to the completion of the connection of Haig Boulevard to Lakeshore Road East.

Scenario 3B

The road improvements considered to be complete as part of Scenario 3A include the road improvements proposed as part of Scenario 1 & 2, in addition to the implementation of a dual northbound left-turn phase on Lakeshore Road East at Lakefront Promenade.



7.2 APPROACH & METHODOLOGY

7.2.1 Study Horizons

The traffic analysis methodology for this study generally aligns with the methodology within The Municipal Infrastructure Group's (TMIG) April 2021 Traffic Considerations Report Addendum ("the 2021 April TMIG report"). The 2031 and 2041 horizons were used for the traffic analysis in order to be consistent with the 2021 April TMIG report. As the actual timing of the developments is expected to vary, the roadway improvements, along with the overall number of residential units to be developed, are the key components of the analysis.

7.2.2 Area Travel Mode Share

The existing area travel mode share does not consider the implementation of the BRT along Lakeshore Road while the future area travel mode share includes the implementation of the BRT as summarized in **Table 9** and **Table 10**, respectively. It is noted that with the implementation of the BRT, the auto driver mode share is expected to decrease from 60% (AM peak)/ 61% (PM peak) to 50% during both peak periods of the day.

Although the future travel mode share for cycling is stated as 0% in **Table 10**, for the purpose of this travel demand assessment, the future cycling travel mode share has been adjusted to 2% to account for cycling trips that would likely be generated by the sites being considered. As part of this adjustment, the auto passenger travel mode share has been reduced by 2% for each time period. The cycling travel mode share can be updated in the future when more accurate travel mode information is available. The updated future area travel mode share that includes the BA Group adjustments is provided in **Table 11**.

TABLE 9 AREA TRAVEL MODE SHARE (BEFORE BRT)

Mode of Travel	Lakeview		Port Credit		Average	
	AM	PM	AM	PM	AM	PM
Transit	11%	21%	28%	33%	20%	27%
Auto Driver	59%	61%	61%	61%	60%	61%
Auto Passenger	27%	14%	6%	4%	16%	9%
Walk	3%	4%	5%	2%	4%	3%
Cycle	0%	0%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%	100%

Note:

1. Source:TMIG April 2021 report, Table 3.1, Page 17.

TABLE 10 AREA TRAVEL MODE SHARE (WITH BRT)

Mode of Travel	2016 TTS Average		50% Auto Driver		Difference	
	AM	PM	AM	PM	AM	PM
Transit	20%	27%	25%	35%	5%	8%
Auto Driver	60%	61%	50%	50%	-10%	-11%
Auto Passenger	16%	9%	20%	11%	4%	2%
Walk	4%	3%	5%	4%	1%	1%
Cycle	0%	0%	0%	0%	0%	0%
Total	100%	100%	100%	100%	0%	0%



Note:

1. Source: TMIG April 2021 report, Table 2.3, Page 87.

TABLE 11 ADJUSTED AREA TRAVEL MODE SHARE¹ (WITH BRT)

Mode of Travel	2016 TTS Average		50% Auto Driver		Difference	
	AM	PM	AM	PM	AM	PM
Transit	20%	27%	25%	35%	5%	8%
Auto Driver	60%	61%	50%	50%	-10%	-11%
Auto Passenger	14%	7%	18%	9%	4%	2%
Walk	4%	3%	5%	4%	1%	1%
Cycle	2%	2%	2%	2%	2%	2%
Total	100%	100%	100%	100%	0%	0%

Note:

1. BA Group adjusted Table 2.3 in the TMIG April 2021 report and increased the cycling mode share to 2% for all time periods and decreased the auto passenger share by 2% for all time periods.

7.2.3 Existing Traffic Volumes

The traffic analysis for the purpose of this study did not include an assessment of existing conditions.

7.2.4 Background Traffic Volumes

To determine the background traffic volumes for this study, traffic volume layers, inclusive of site traffic volumes and background traffic volumes, were taken from the April 2021 TMIG Report. These traffic volume layers were then adjusted based upon the following:

- Development statistics considered by scenario;
- Driveway removals; and
- Proposed road network/ access points.

Traffic volume layers were then created for both the Rangeview and Lakeview Village sites that could be added to the future background layers.

A key component of the background travel demand assessment included a corridor reduction exercise that estimated how the planned BRT along Lakeshore Road could be expected to reduce traffic volumes. As part of this exercise, a total of 200 vehicles per hour were removed from through traffic volumes along Lakeshore Road, in the peak direction only, for both the morning and afternoon peak hour. The traffic volumes were then balanced and diverted as appropriate, depending on the road network being included for each scenario, thus the diversion and balancing undertaken differs by scenario.



7.3 MULTI-MODAL TRAVEL DEMAND

In order to determine the travel demand for each scenario, trip rates were established from the April 2021 TMIG report. Relevant excerpts from the April 2021 TMIG report are provided in **Appendix D**. Once the number of vehicle trips was determined, the future travel mode shares (with BRT) from **Table 11**, were applied to each scenario to establish the multi-modal travel demand. It is important to note that the travel demand for the BA Group traffic analysis is conservative as it considers Lakeview Village with a total non-residential GFA of 2.1 million ft², inclusive of the proposed recreational community centre GFA of 436,000 ft², in order to align with the traffic volume layers included with the April 2021 TMIG study. Since completion of the April 2021 TMIG report, as per TMIG's discussions with City Staff, it was agreed that these uses would be off-peak generators and traffic related to the recreational community centre has not been included in TMIG's most analysis update.

7.3.1 Multi-Modal Travel Demand: Scenario 1 – 2,500 Rangeview Residential Units

As summarized in **Table 12**, in consideration of Rangeview with 2,500 residential units and Lakeview Village with 7,500 residential units + 67% development of the non-residential, the combined sites are expected to generate a total of 2,890 and 3,054 two-way vehicle trips during the morning and afternoon peak period, respectively.

TABLE 12 VEHICLE TRIPS: SCENARIO 1 – 2,500 RANGEVIEW UNITS

Land Use	Number of Units / % Non-residential	AM Peak Hour			PM Peak Hour		
		In	Out	2-Way	In	Out	2-Way
Rangeview							
Residential	2,500 units	56	413	469	293	112	405
Office	0%	0	0	0	0	0	0
Retail	0%	0	0	0	0	0	0
Total		56	413	469	293	112	405
Lakeview Village							
Residential	7,500 units	185	1,283	1,468	938	379	1,317
Non-Residential ¹	67% (1.4M ft ²)	669	285	953	496	835	1,331
Total		854	1,568	2,422	1,434	1,215	2,649
Serson							
Office	0%	0	0	0	0	0	0
Research	0%	0	0	0	0	0	0
Total		0	0	0	0	0	0
All Sites Combined							
Total		910	1,980	2,890	1,728	1,326	3,054

Notes:

- 67% of the total Lakeview Village non-residential development of 2.1 million ft² is 1.4 million ft².



Figures that illustrate the Scenario 1 traffic volumes are provided as follows:

- **Figure 15:** Scenario 1: 2031 Rangeview Site Traffic Volumes (2,500 units)
- **Figure 16:** Scenario 1: 2031 Lakeview Village Site Traffic Volumes (7,500 units)
- **Figure 17:** Scenario 1: 2031 Rangeview + Lakeview Village Site Traffic Volumes (10,000 units)
- **Figure 18:** Scenario 1: 2031 Future Total Traffic Volumes (10,000 units)

As summarized in **Table 13**, Scenario 1 (2,500 Rangeview units) is expected to generate 1,445 and 2,138 two-way transit trips, during the morning and afternoon peak period respectively. There are expected to be 1,040 and 550 two-way auto passenger trips, during the morning and afternoon peak period respectively and 289 and 244 two-way walking trips, during the morning and afternoon peak period respectively. With the adjusted travel mode shares for cycling trips, there are expected to be 116 and 122 two-way cycling trips, during the morning and afternoon peak period respectively.

TABLE 13 MULTI-MODAL TRAVEL DEMAND: SCENARIO 1 – 2,500 RANGEVIEW UNITS

Mode of Travel	Morning			Afternoon		
	In	Out	2-Way	In	Out	2-Way
Transit	455	990	1,445	1,209	928	2,138
Auto Driver	910	1,980	2,890	1,728	1,326	3,054
Auto Passenger	328	713	1,040	311	239	550
Walk	91	198	289	138	106	244
Cycle	36	79	116	69	53	122
Total	1,820	3,961	5,781	3,455	2,653	6,108

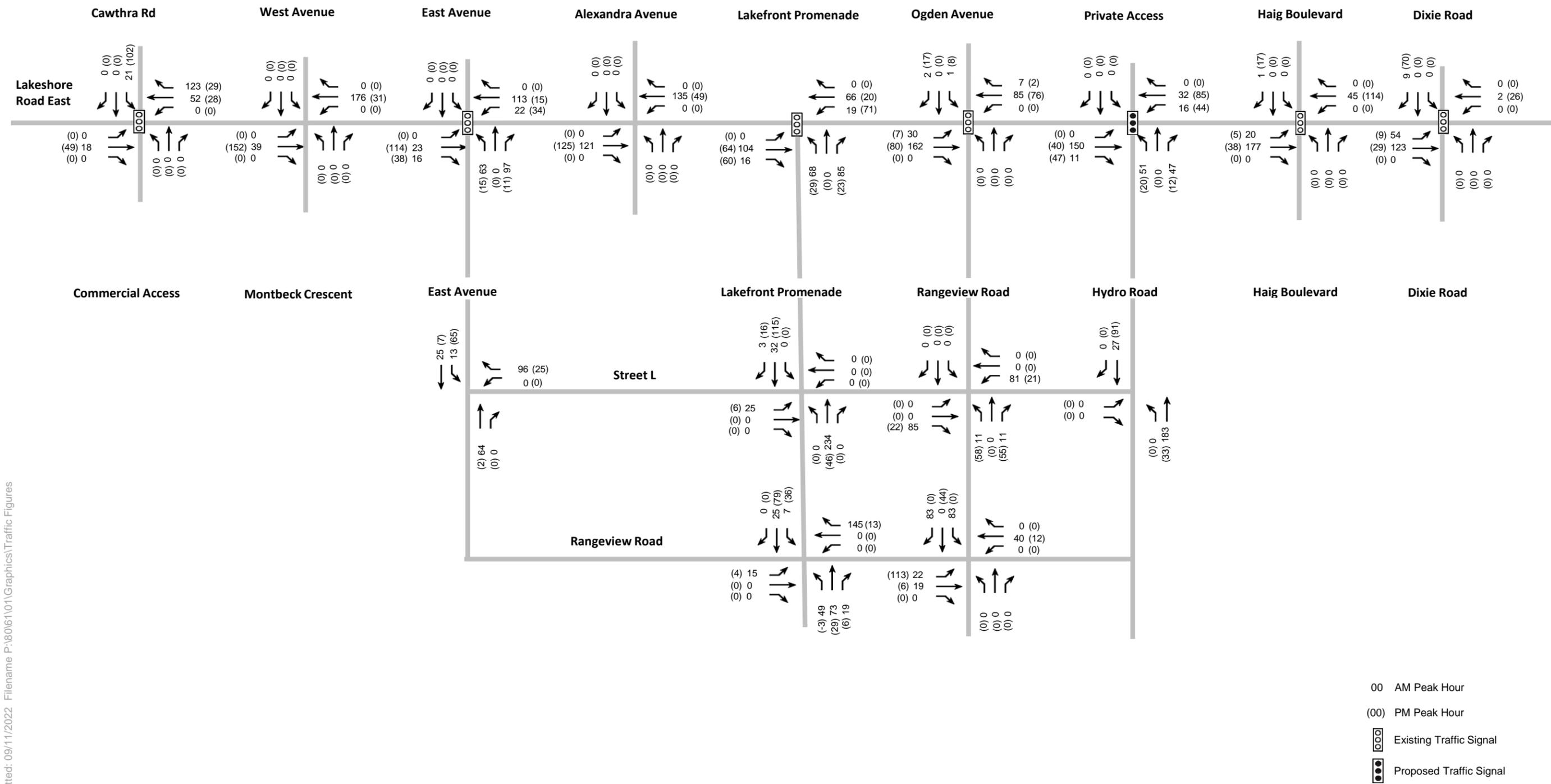
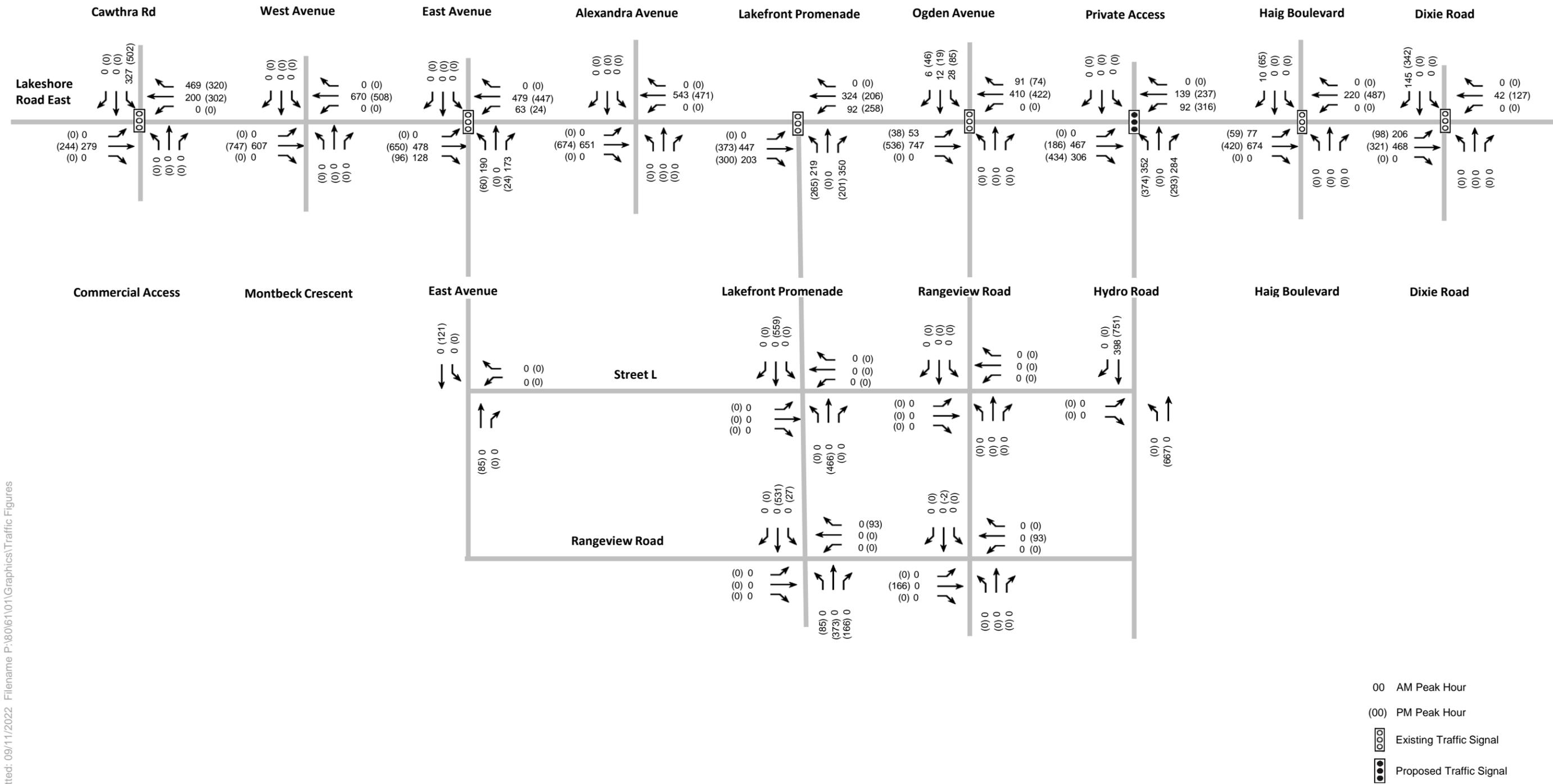


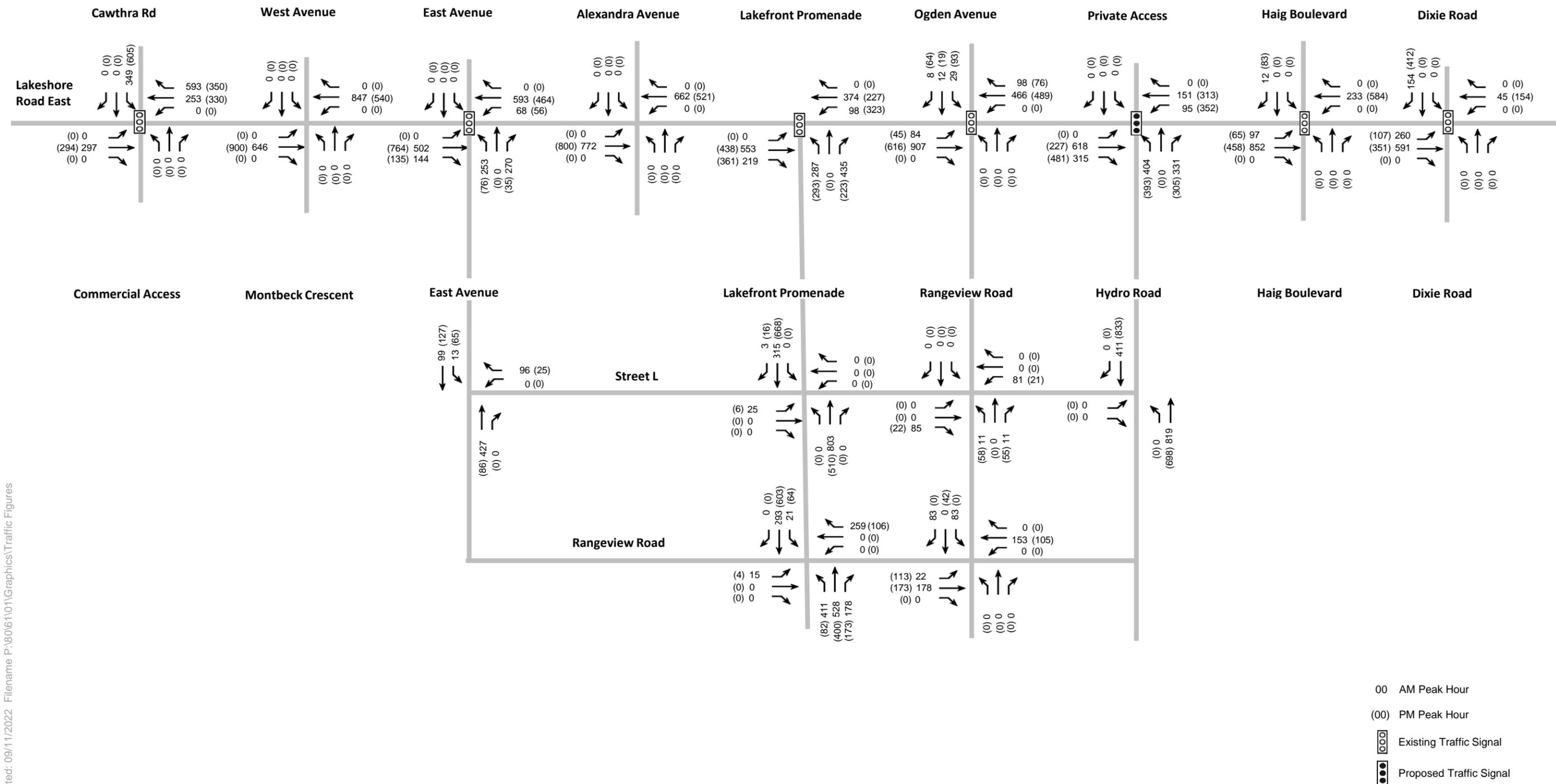
FIGURE 15 - SCENARIO 1 2031 RANGEVIEW SITE TRAFFIC VOLUMES (2,500 UNITS)

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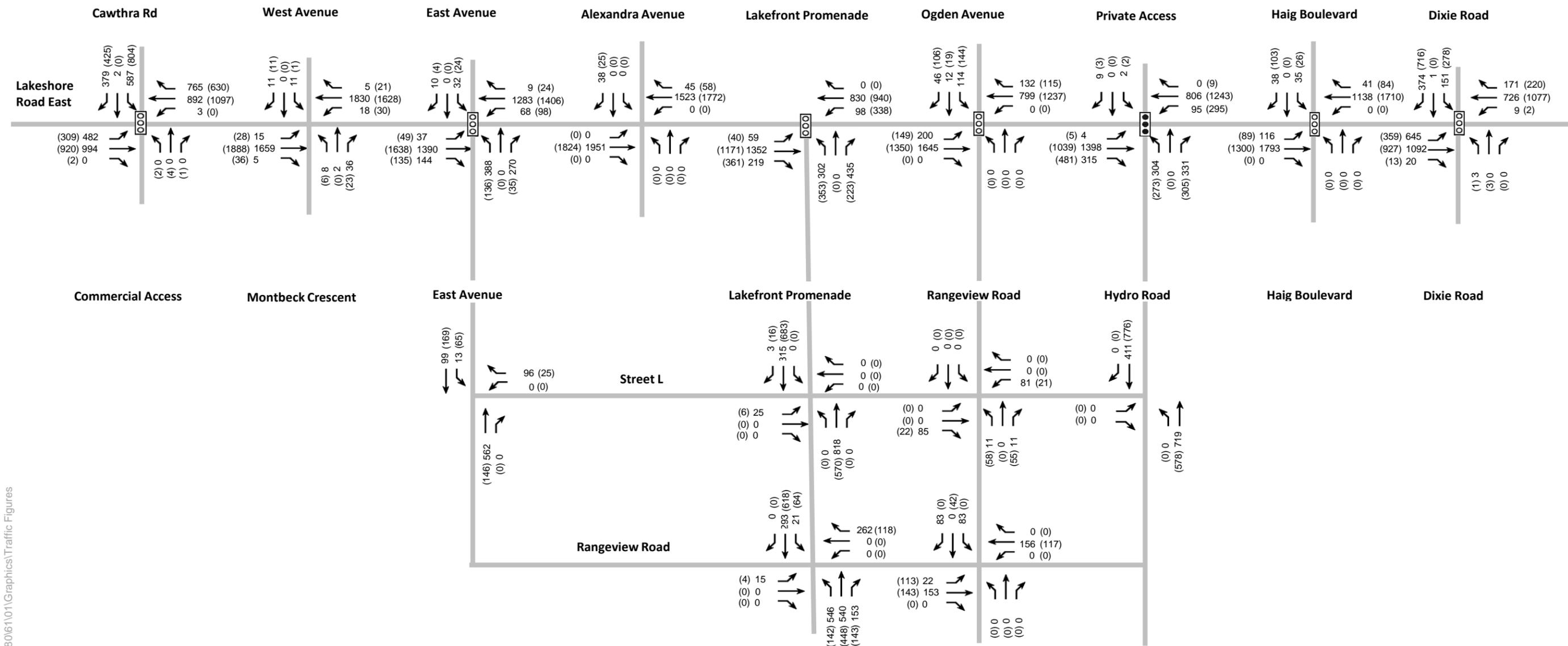
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FIGURE 16 - SCENARIO 1 2031 LAKEVIEW VILLAGE SITE TRAFFIC VOLUMES (7,500 UNITS)



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FIGURE 17 - SCENARIO 1 2031 RANGEVIEW + LAKEVIEW VILLAGE SITE TRAFFIC VOLUMES (10,000 UNITS)



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FIGURE 18 - SCENARIO 1 2031 FUTURE TOTAL TRAFFIC VOLUMES (10,000 UNITS)

7.3.2 Travel Demand: Scenario 2 – 3,700 Rangeview Residential Units (with Ogden)

As summarized in **Table 14**, in consideration of Rangeview with 3,700 residential units + 100% development of the non-residential and Lakeview Village with 8,050 residential units + 100% development of the non-residential, the combined sites are expected to generate a total of 3,841 and 4,229 two-way vehicle trips during the morning and afternoon peak period, respectively.

TABLE 14 VEHICLE TRIPS: SCENARIO 2 – 3,700 RANGEVIEW UNITS (WITH OGDEN)

Land Use	Number of Units / % Non-residential	AM Peak Hour			PM Peak Hour		
		In	Out	2-Way	In	Out	2-Way
Rangeview							
Residential	3,700 units	83	611	694	449	172	621
Office	100% (47,500 ft ²)	33	4	37	1	22	23
Retail	100% (47,500 ft ²)	64	40	104	91	84	174
Total		179	656	835	540	278	818
Lakeview Village							
Residential	8,050 units	199	1,377	1,576	1,007	407	1,414
Non-Residential	100% (2.1M ft ²)	1,003	427	1,430	744	1,253	1,997
Total		1,202	1,804	3,006	1,751	1,660	3,411
Serson							
Office	0%	0	0	0	0	0	0
Research	0%	0	0	0	0	0	0
Total		0	0	0	0	0	0
All Sites Combined							
Total		1,381	2,460	3,841	2,291	1,938	4,229

Figures that illustrate the Scenario 2 traffic volumes are provided as follows:

- **Figure 19:** Scenario 1: 2041 Rangeview Site Traffic Volumes (3,700 units)
- **Figure 20:** Scenario 1: 2041 Lakeview Village Site Traffic Volumes (8,050 units)
- **Figure 21:** Scenario 1: 2041 Rangeview + Lakeview Village Site Traffic Volumes (11,750 units)
- **Figure 22:** Scenario 1: 2041 Future Total Traffic Volumes (11,750 units)

As summarized in **Table 15**, Scenario 2 (3,700 Rangeview units) is expected to generate 1,921 and 2,961 two-way transit trips, during the morning and afternoon peak period respectively. There are expected to be 1,383 and 761 two-way auto passenger trips, during the morning and afternoon peak period respectively and 384 and 338 two-way walking trips, during the morning and afternoon peak period respectively. With the adjusted travel mode shares for cycling trips, there are expected to be 154 and 169 two-way cycling trips, during the morning and afternoon peak period respectively.

TABLE 15 MULTI-MODAL TRAVEL DEMAND: SCENARIO 2 – 3,700 RANGEVIEW UNITS (WITH OGDEN)

Mode of Travel	Morning			Afternoon		
	In	Out	2-Way	In	Out	2-Way
Transit	691	1,230	1,921	1,604	1,357	2,961
Auto Driver	1,381	2,460	3,841	2,291	1,938	4,229
Auto Passenger	497	886	1,383	412	349	761
Walk	138	246	384	183	155	338
Cycle	55	98	154	92	78	169
Total	2,763	4,919	7,682	4,582	3,876	8,459



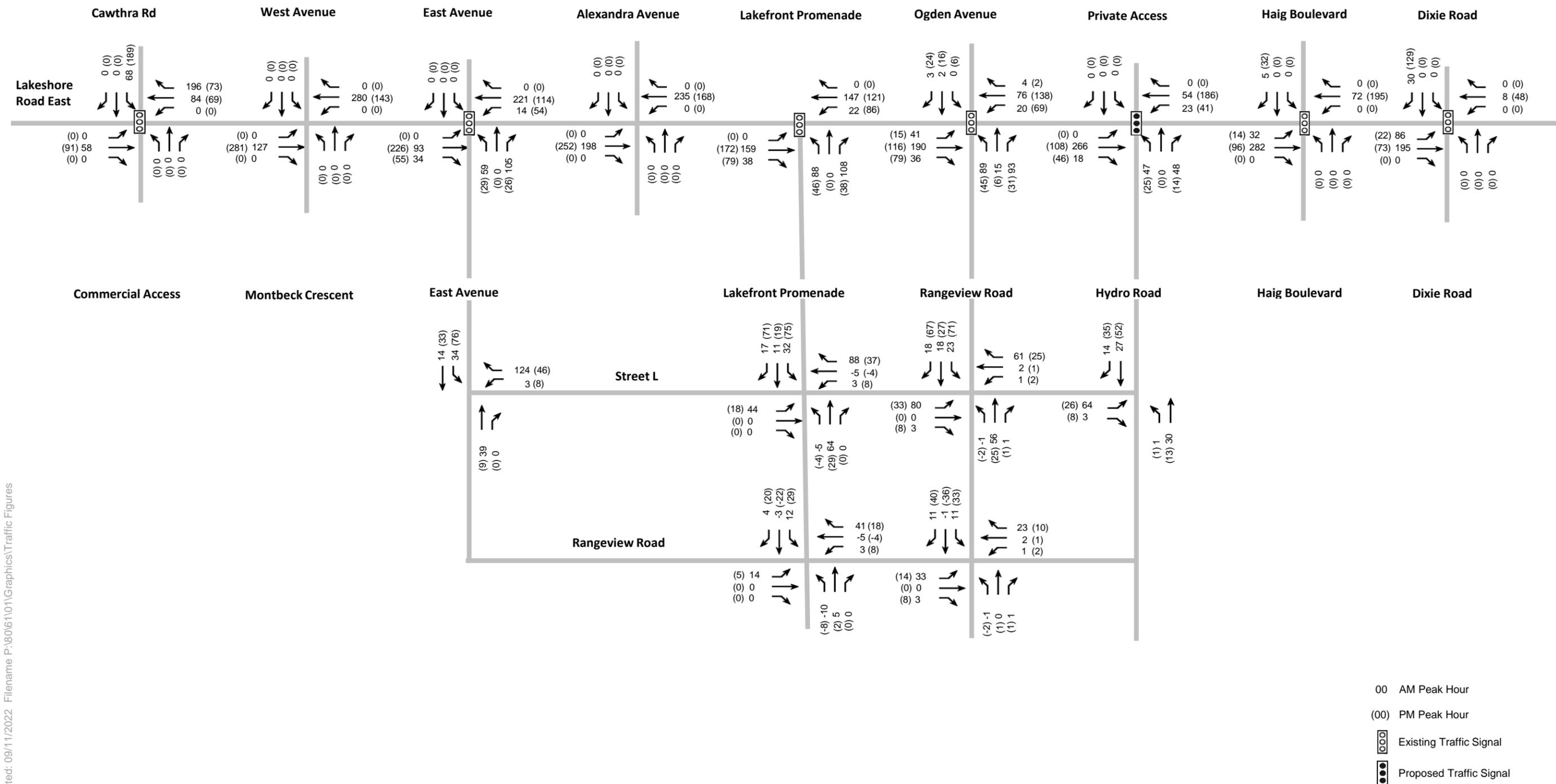
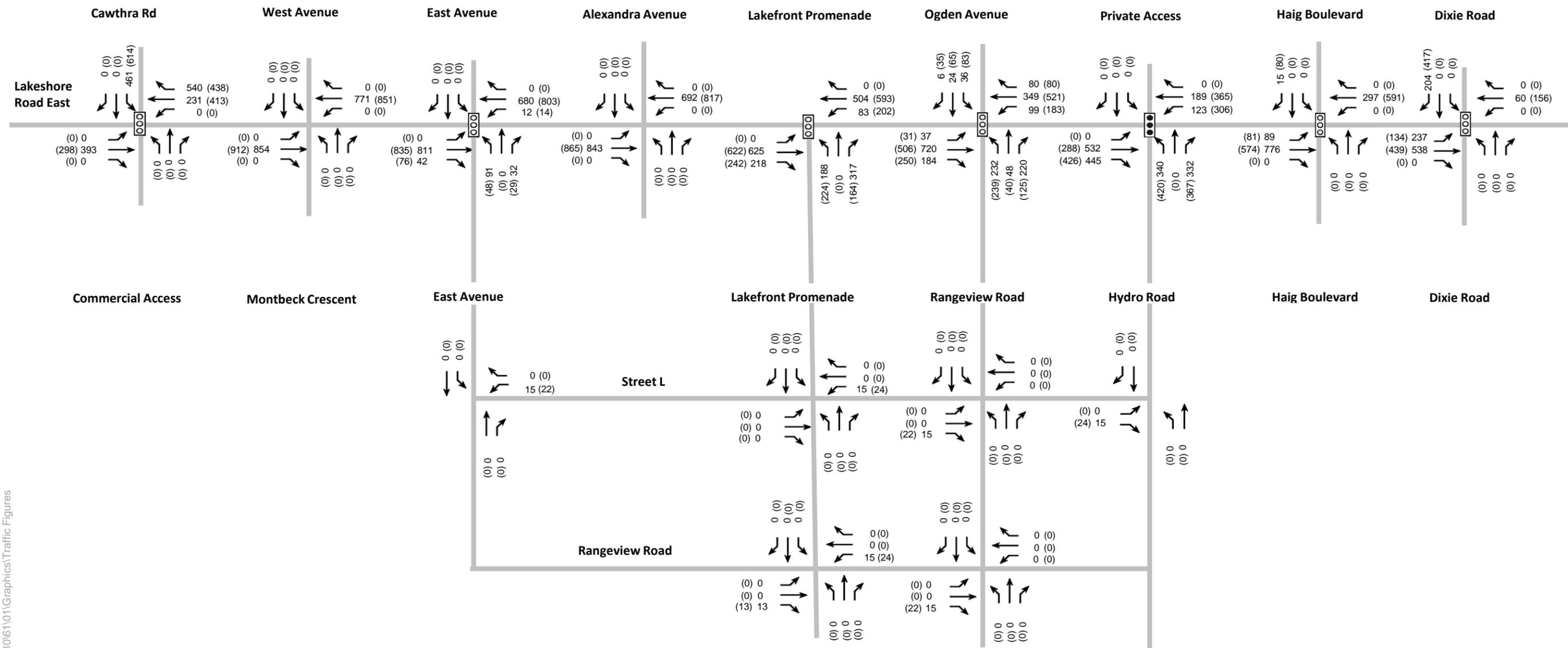


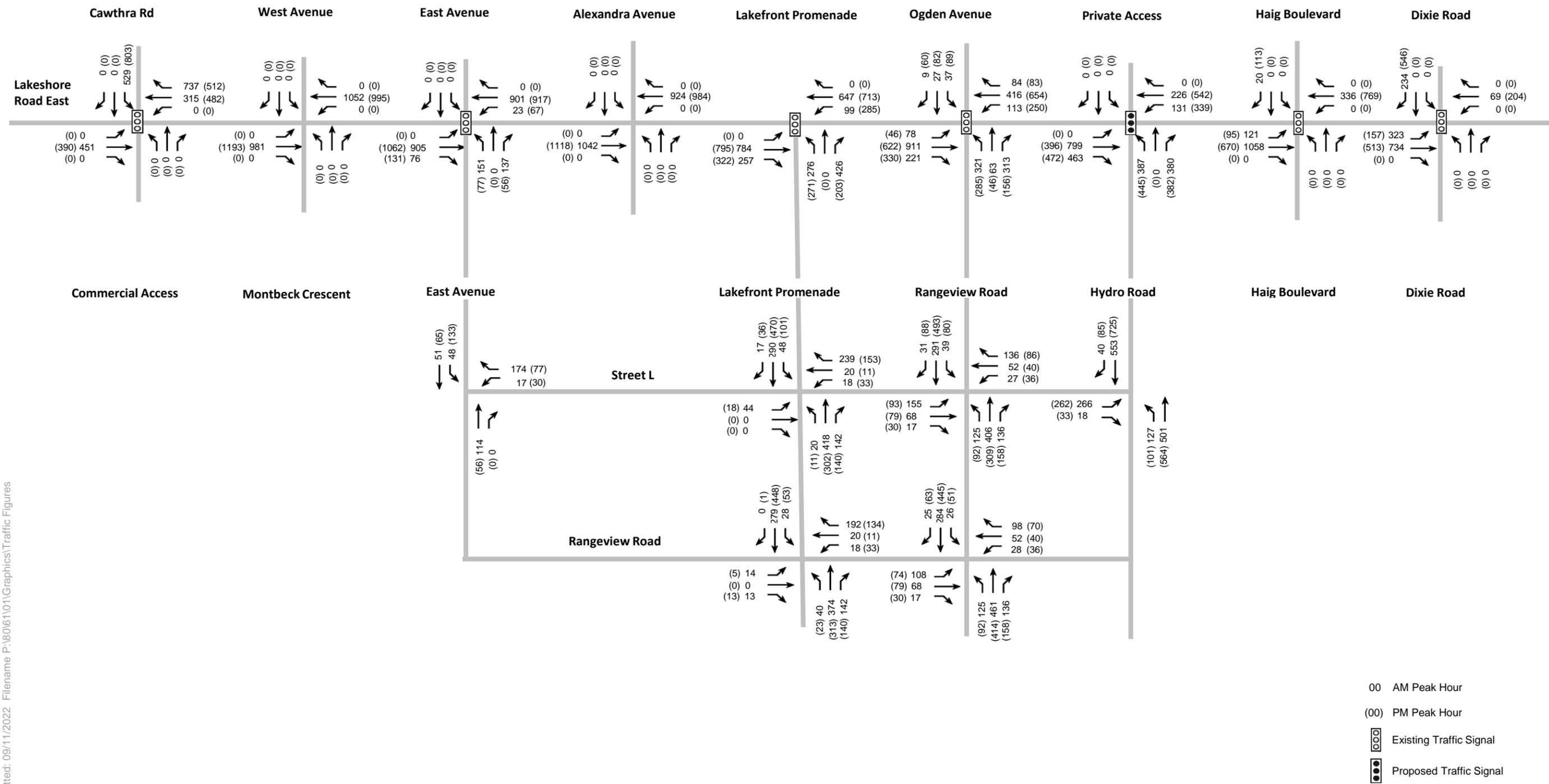
FIGURE 19 - SCENARIO 2 2041 RANGEVIEW SITE TRAFFIC VOLUMES (3,700 UNITS)

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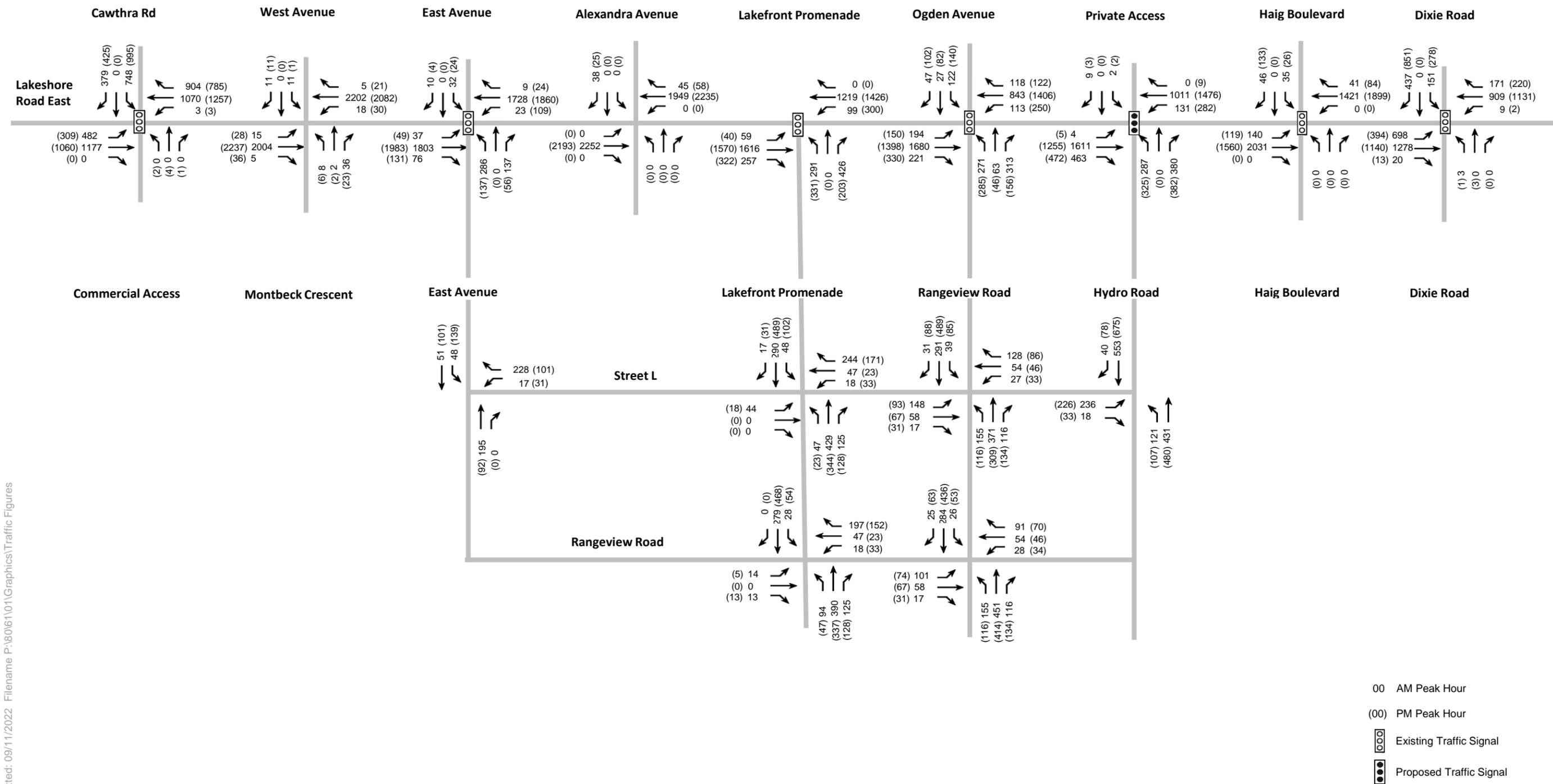
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FIGURE 20 - SCENARIO 2 2041 LAKEVIEW VILLAGE SITE TRAFFIC VOLUMES (8,050 UNITS)



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FIGURE 21 - SCENARIO 2 2041 RANGEVIEW + LAKEVIEW VILLAGE SITE TRAFFIC VOLUMES (11,750 UNITS)



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FIGURE 22 - SCENARIO 2 2041 FUTURE TOTAL TRAFFIC VOLUMES (11,750 UNITS)

7.3.3 Travel Demand: Scenario 3A – 5,300 Rangeview Residential Units (with Haig)

As summarized in **Table 16**, with the connection of Haig Boulevard, in consideration of Rangeview with 5,300 residential units + 100% development of the non-residential and Lakeview Village with 8,050 residential units + 100% development of the non-residential and 100% of the Serson lands developed, the combined sites are expected to generate a total of 4,337 and 4,739 two-way vehicle trips, during the morning and afternoon peak period, respectively.

TABLE 16 VEHICLE TRIPS: SCENARIO 3A – 5,300 RANGEVIEW UNITS (WITH HAIG)

Land Use	Number of Units / % Non-residential	AM Peak Hour			PM Peak Hour		
		In	Out	2-Way	In	Out	2-Way
Rangeview							
Residential	5,300 units	118	876	995	656	253	909
Office	100% (47,500 ft ²)	33	4	37	1	22	23
Retail	100% (47,500 ft ²)	61	40	101	91	84	174
Total		213	920	1,132	748	359	1,106
Lakeview Village							
Residential	8,050 units	199	1,377	1576	1,007	407	1,414
Non-Residential	100% (2.1M ft ²)	1,003	427	1,430	744	1,253	1,997
Total		1,202	1,804	3,006	1,751	1,660	3,411
Serson							
Office	100% (224,500 ft ²)	116	19	135	24	118	142
Research	100% (224,500 ft ²)	48	16	64	12	68	80
Total		164	35	199	36	186	222
All Sites Combined							
Total		1,579	2,759	4,337	2,535	2,205	4,739

Figures that illustrate the Scenario 3A traffic volumes are provided as follows:

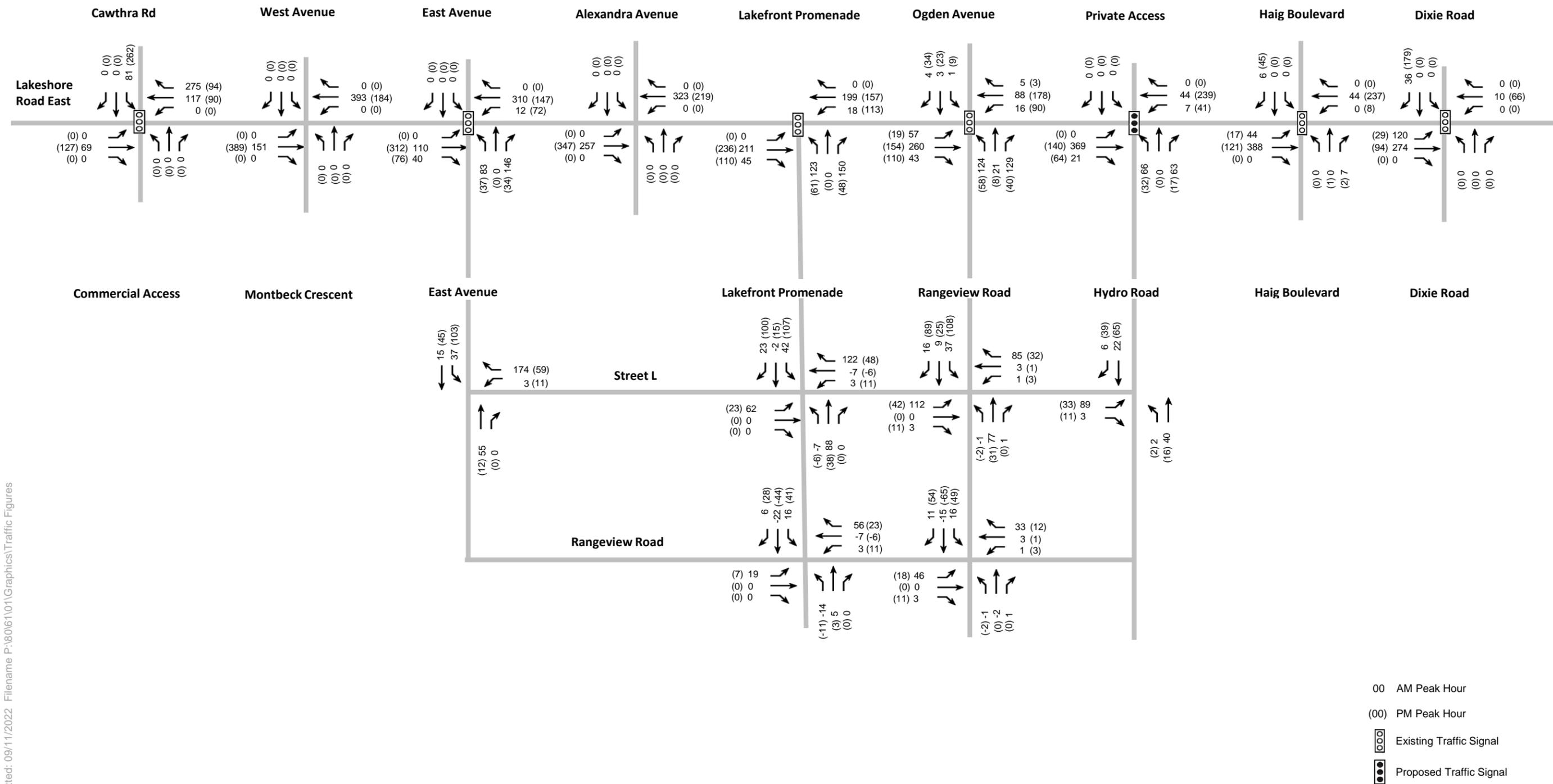
- **Figure 23:** Scenario 3A: 2041 Rangeview Site Traffic Volumes (5,300 units + Haig)
- **Figure 24:** Scenario 3A: 2041 Lakeview Village Site Traffic Volumes (8,050 units + Haig)
- **Figure 25:** Scenario 3A: 2041 Serson Site Traffic Volumes (8,050 units + Haig)
- **Figure 26:** Scenario 3A: 2041 Rangeview + Lakeview Village Site Traffic Volumes (13,350 units + Haig)
- **Figure 27:** Scenario 3A: 2041 Future Total Traffic Volumes (13,350 units + Haig)



As summarized in **Table 17**, Scenario 3A (5,300 Rangeview units with Haig) is expected to generated 2,169 and 3,318 two-way transit trips, during the morning and afternoon peak period respectively. There are expected to be 1,561 and 853 two-way auto passenger trips, during the morning and afternoon peak period respectively and 434 and 379 two-way walking trips, during the morning and afternoon peak period respectively. With the adjusted travel mode shares for cycling trips, there are expected to be 173 and 190 two-way cycling trips, during the morning and afternoon peak period respectively.

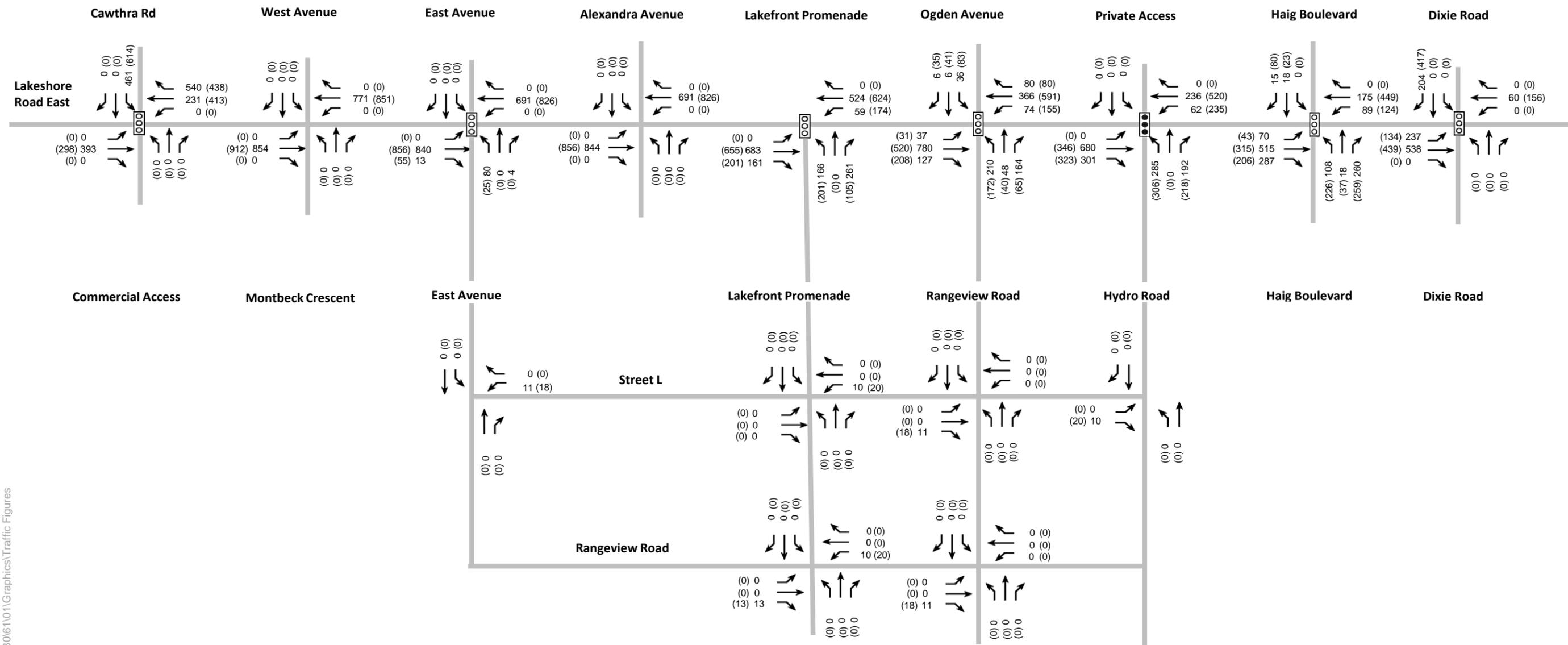
TABLE 17 MULTI-MODAL TRAVEL DEMAND: SCENARIO 3A – 5,300 RANGEVIEW UNITS (WITH HAIG)

Mode of Travel	Morning			Afternoon		
	In	Out	2-Way	In	Out	2-Way
Transit	789	1,379	2,169	1,774	1,543	3,318
Auto Driver	1,579	2,759	4,337	2,535	2,205	4,739
Auto Passenger	568	993	1,561	456	397	853
Walk	158	276	434	203	176	379
Cycle	63	110	173	101	88	190
Total	3,157	5,518	8,675	5,069	4,410	9,479



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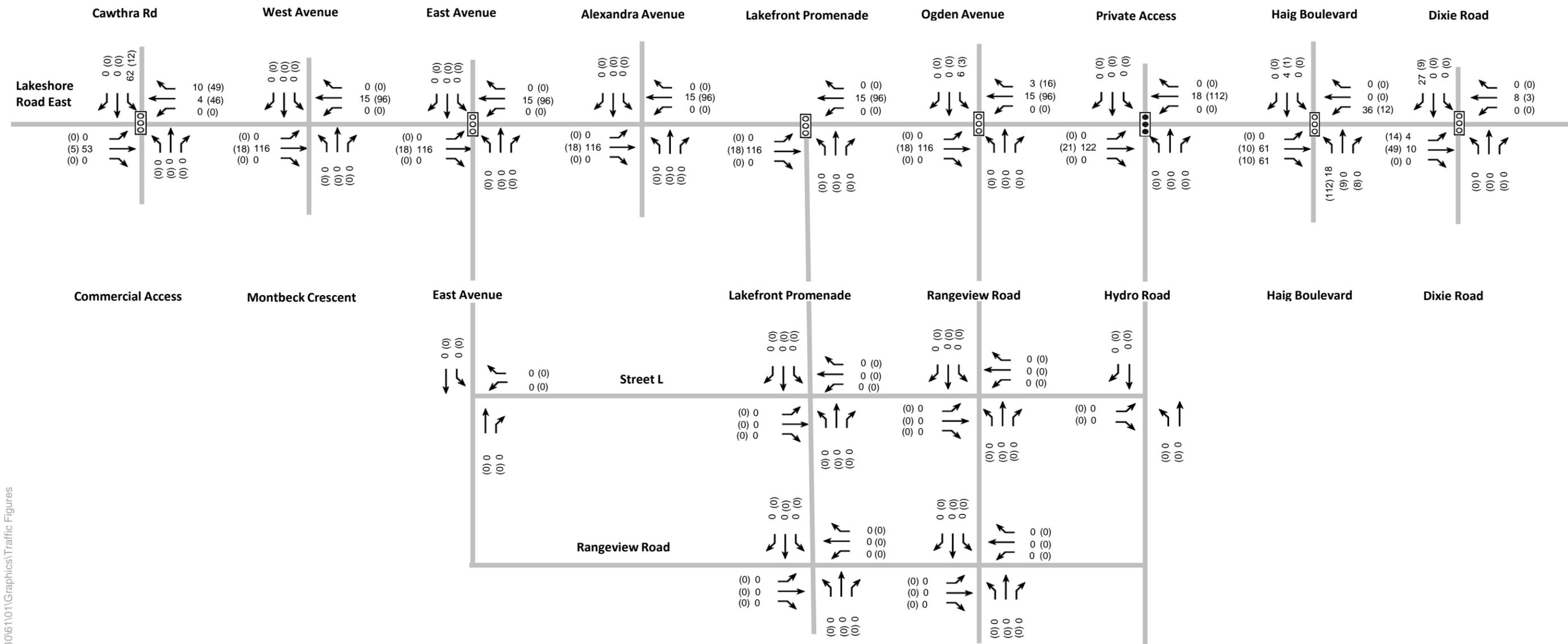
FIGURE 23 - SCENARIO 3A 2041 RANGEVIEW SITE TRAFFIC VOLUMES (5,300 UNITS + HAIG)



- 00 AM Peak Hour
- (0) PM Peak Hour
- Existing Traffic Signal
- Proposed Traffic Signal

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FIGURE 24 - SCENARIO 3A 2041 LAKEVIEW VILLAGE SITE TRAFFIC VOLUMES (8,050 UNITS + HAIG)



- 00 AM Peak Hour
- (00) PM Peak Hour
- Existing Traffic Signal
- Proposed Traffic Signal

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FIGURE 25 - SCENARIO 3A 2041 SERON SITE TRAFFIC VOLUMES (+ HAIG)

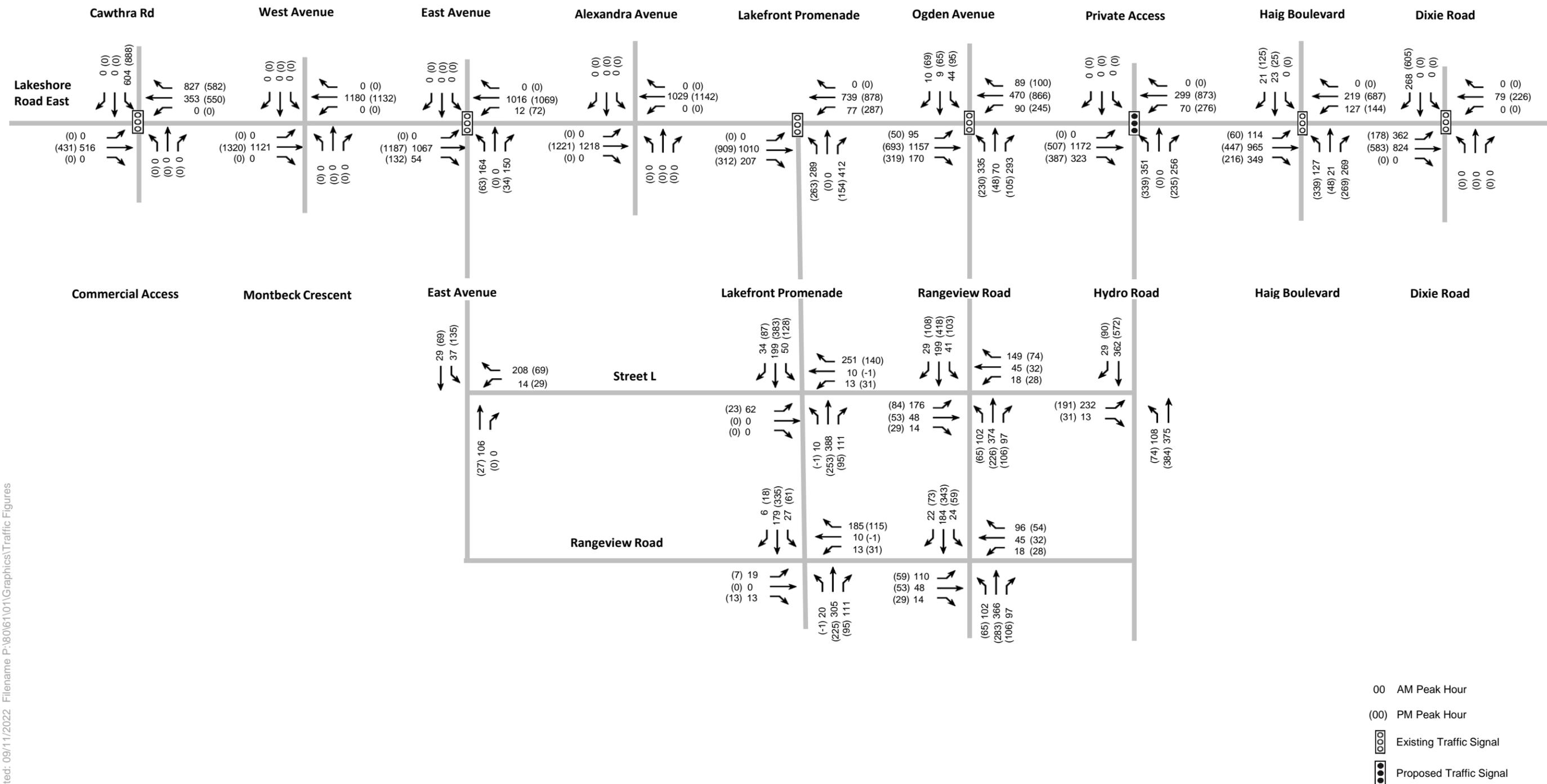
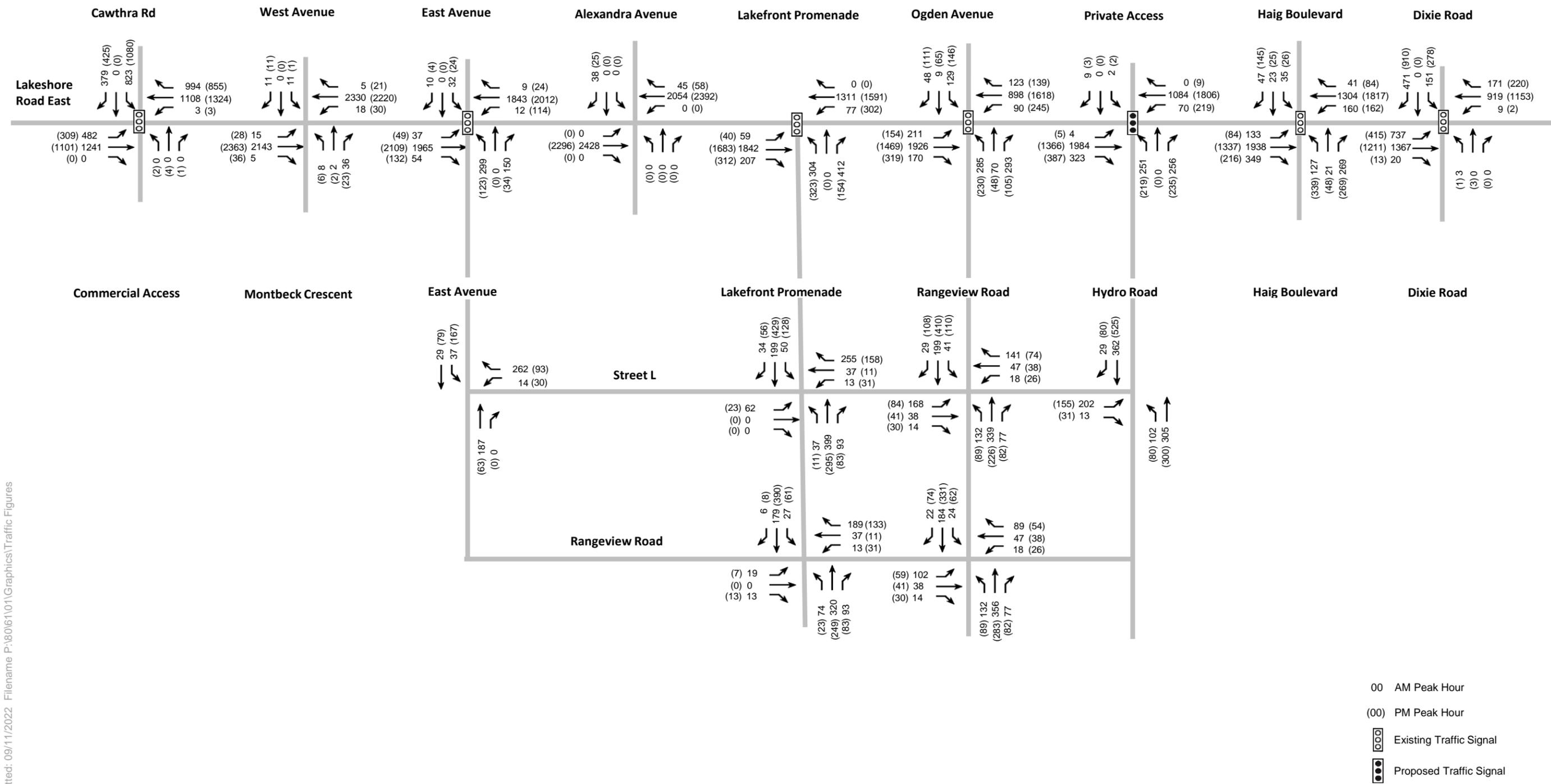


FIGURE 26 - SCENARIO 3A 2041 RANGEVIEW + LAKEVIEW VILLAGE + SERSON SITE TRAFFIC VOLUMES (13,350 UNITS + HAIG)



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FIGURE 27 - SCENARIO 3A 2041 FUTURE TOTAL TRAFFIC VOLUMES (13,350 UNITS + HAIG)

7.3.4 Travel Demand: Scenario 3B – 5,300 Rangeview Residential Units (Dual left turns but no Haig)

Scenario 3B includes the implementation of a dual northbound left-turn on Lakeshore Promenade at Lakeshore Road. As the traffic analysis determined that additional capacity would be required for northbound left-turning vehicles leaving both the Rangeview and Lakeview Village sites, to travel westbound along Lakeshore Road, the dual left-turn lane option, without the connection of Haig Boulevard, was deemed to be beneficial from a phasing and traffic operations perspective.

As summarized in **Table 18**, with the implementation of the northbound dual left-turn on Lakeshore Promenade at Lakeshore Road, in consideration of Rangeview with 5,300 residential units + 100% development of the non-residential and Lakeview Village with 8,050 residential units + 100% development of the non-residential, the combined sites are expected to generate a total of 4,138 and 4,517 two-way vehicle trips, during the morning and afternoon peak period, respectively.

TABLE 18 VEHICLE TRIPS: SCENARIO 3B – 5,300 RANGEVIEW UNITS (DUAL LEFT)

Land Use	Number of Units / % Non-residential	AM Peak Hour			PM Peak Hour		
		In	Out	2-Way	In	Out	2-Way
Rangeview							
Residential	5,300	118	876	995	656	253	909
Office	100% (47,500 ft ²)	33	4	37	1	22	23
Retail	100% (47,500 ft ²)	61	40	101	91	84	174
Total		213	920	1,132	748	359	1,106
Lakeview Village							
Residential	8,050	199	1,377	1,576	1,007	407	1,414
Non-Residential	100% (2.1M ft ²)	1,003	427	1,430	744	1,253	1,997
Total		1,202	1,804	3,006	1,751	1,660	3,411
Serson							
Office	0%	0	0	0	0	0	0
Research	0%	0	0	0	0	0	0
Total		0	0	0	0	0	0
All Sites Combined							
Total		1,415	2,724	4,138	2,499	2,019	4,517

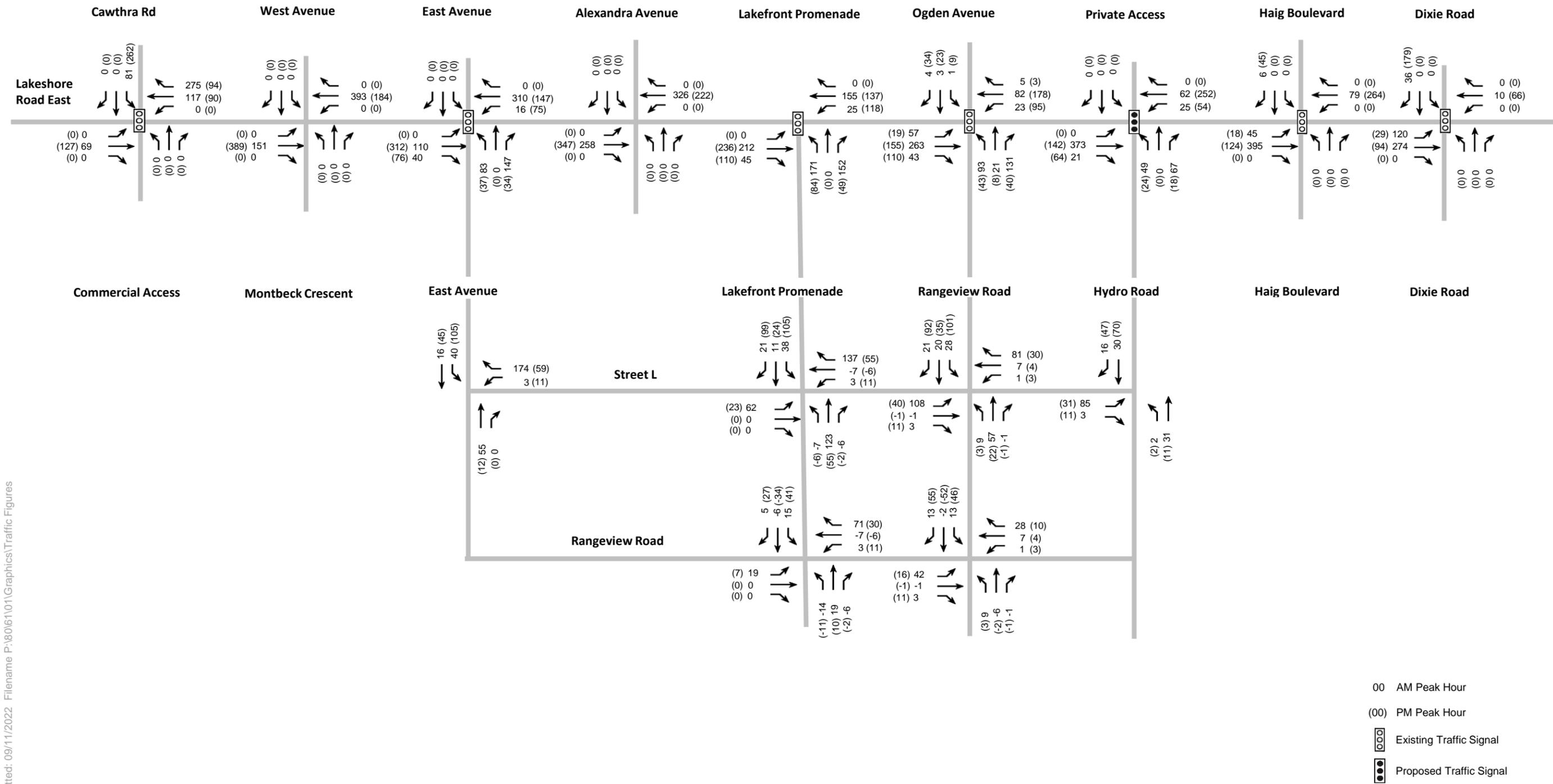
Figures that illustrate the Scenario 3B traffic volumes are provided as follows:

- **Figure 28:** Scenario 3B: 2041 Rangeview Site Traffic Volumes (5,300 units + Dual Left)
- **Figure 29:** Scenario 3B: 2041 Lakeview Village Site Traffic Volumes (8,050 units + Dual Left)
- **Figure 30:** Scenario 3B: 2041 Rangeview + Lakeview Village Site Traffic Volumes (13,350 units + Dual Left)
- **Figure 31:** Scenario 3B: 2041 Future Total Traffic Volumes (13,350 units + Dual Left)

As summarized in **Table 19**, Scenario 3B (5,300 Rangeview units with dual left) is expected to generated 2,069 and 3,162 two-way transit trips, during the morning and afternoon peak period respectively. There are expected to be 1,490 and 813 two-way auto passenger trips, during the morning and afternoon peak period respectively and 414 and 361 two-way walking trips, during the morning and afternoon peak period respectively. With the adjusted travel mode shares for cycling trips, there are expected to be 166 and 181 two-way cycling trips, during the morning and afternoon peak period respectively.

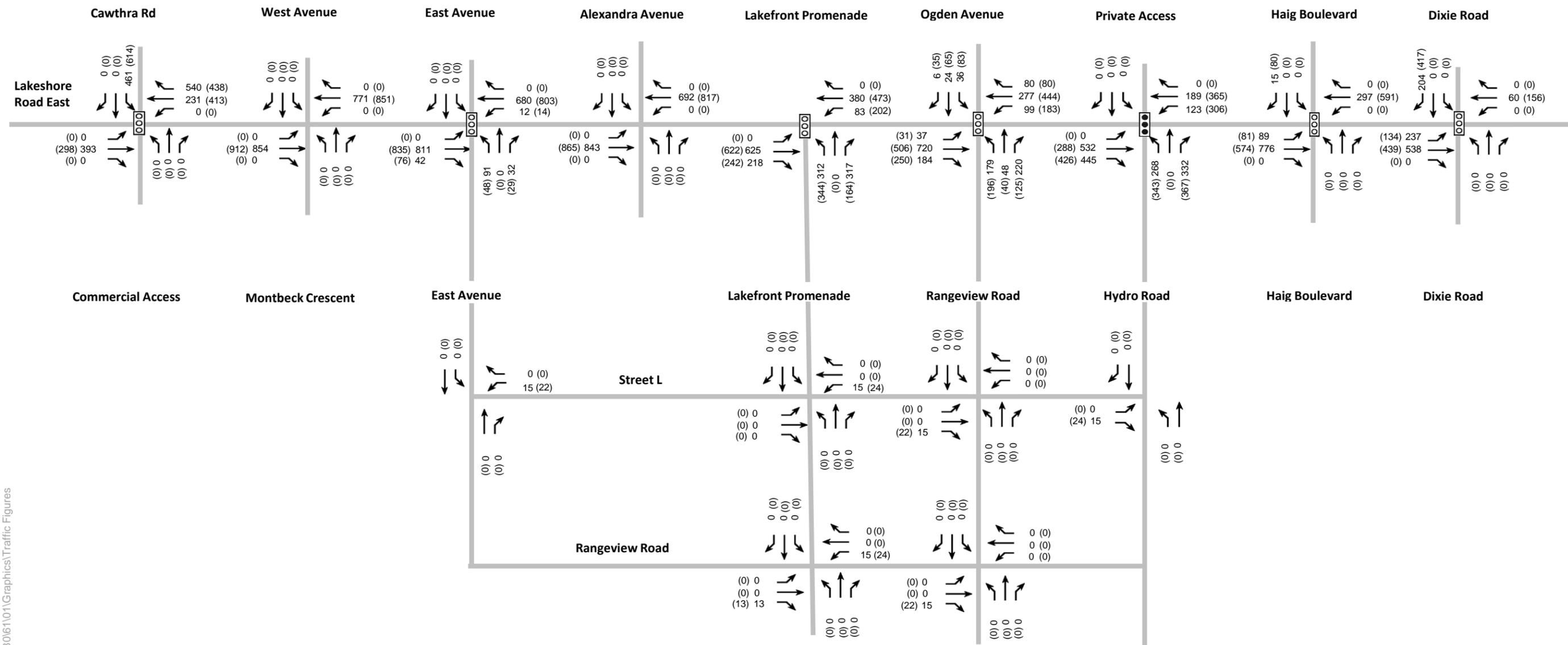
TABLE 19 MULTI-MODAL TRAVEL DEMAND: SCENARIO 3B – 5,300 RANGEVIEW UNITS (WITH DUAL LEFT)

Mode of Travel	Morning			Afternoon		
	In	Out	2-Way	In	Out	2-Way
Transit	707	1,362	2,069	1,749	1,413	3,162
Auto Driver	1,415	2,724	4,138	2,499	2,019	4,517
Auto Passenger	509	981	1,490	450	363	813
Walk	141	272	414	200	162	361
Cycle	57	109	166	100	81	181
Total	2,829	5,448	8,277	4,997	4,038	9,035



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FIGURE 28 - SCENARIO 3B 2041 RANGEVIEW SITE TRAFFIC VOLUMES (5,300 UNITS + DUAL LEFT)



- 00 AM Peak Hour
- (00) PM Peak Hour
- Existing Traffic Signal
- Proposed Traffic Signal

FIGURE 29 - SCENARIO 3B 2041 LAKEVIEW VILLAGE SITE TRAFFIC VOLUMES (8,050 UNITS + DUAL LEFT)

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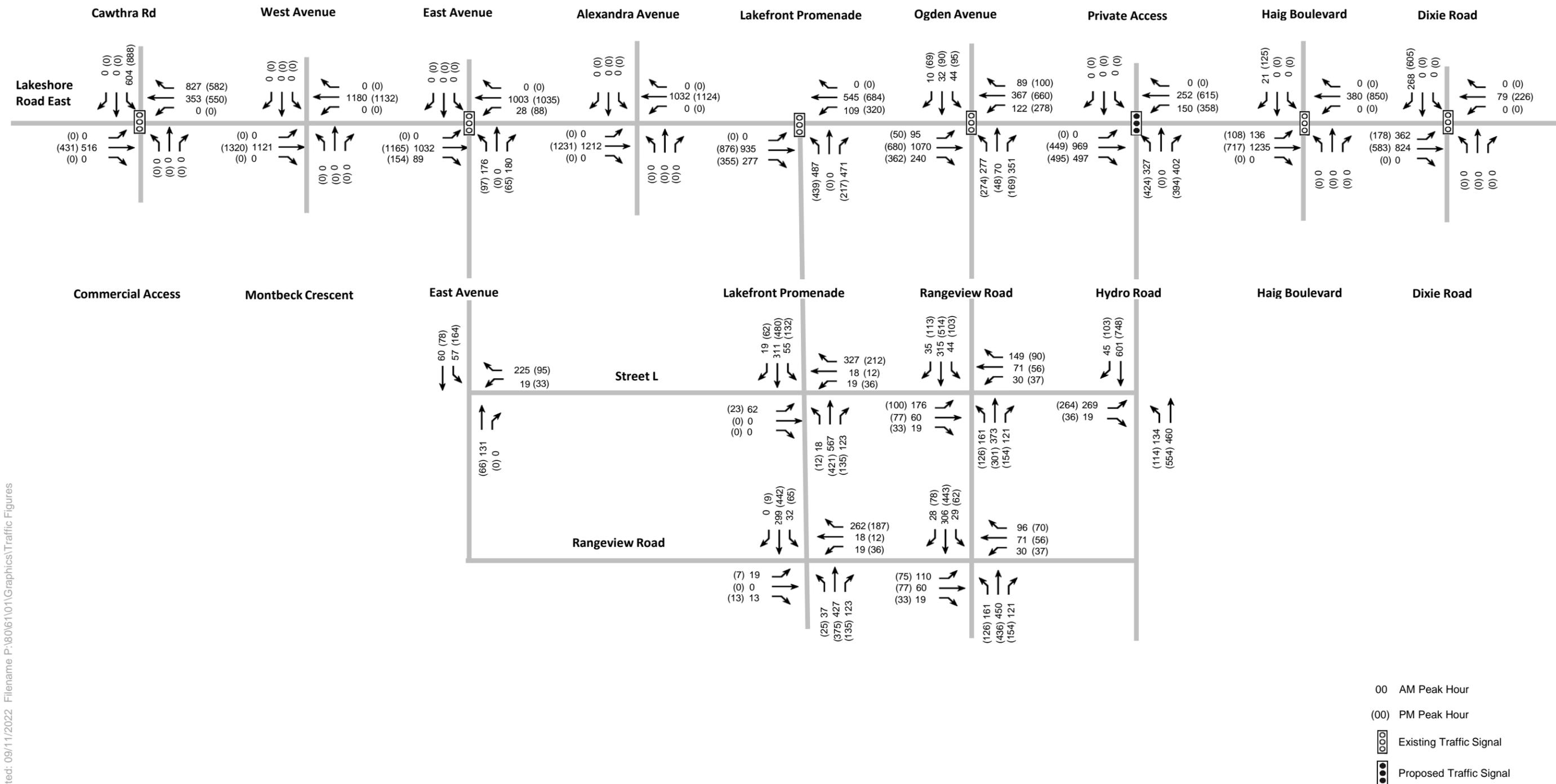
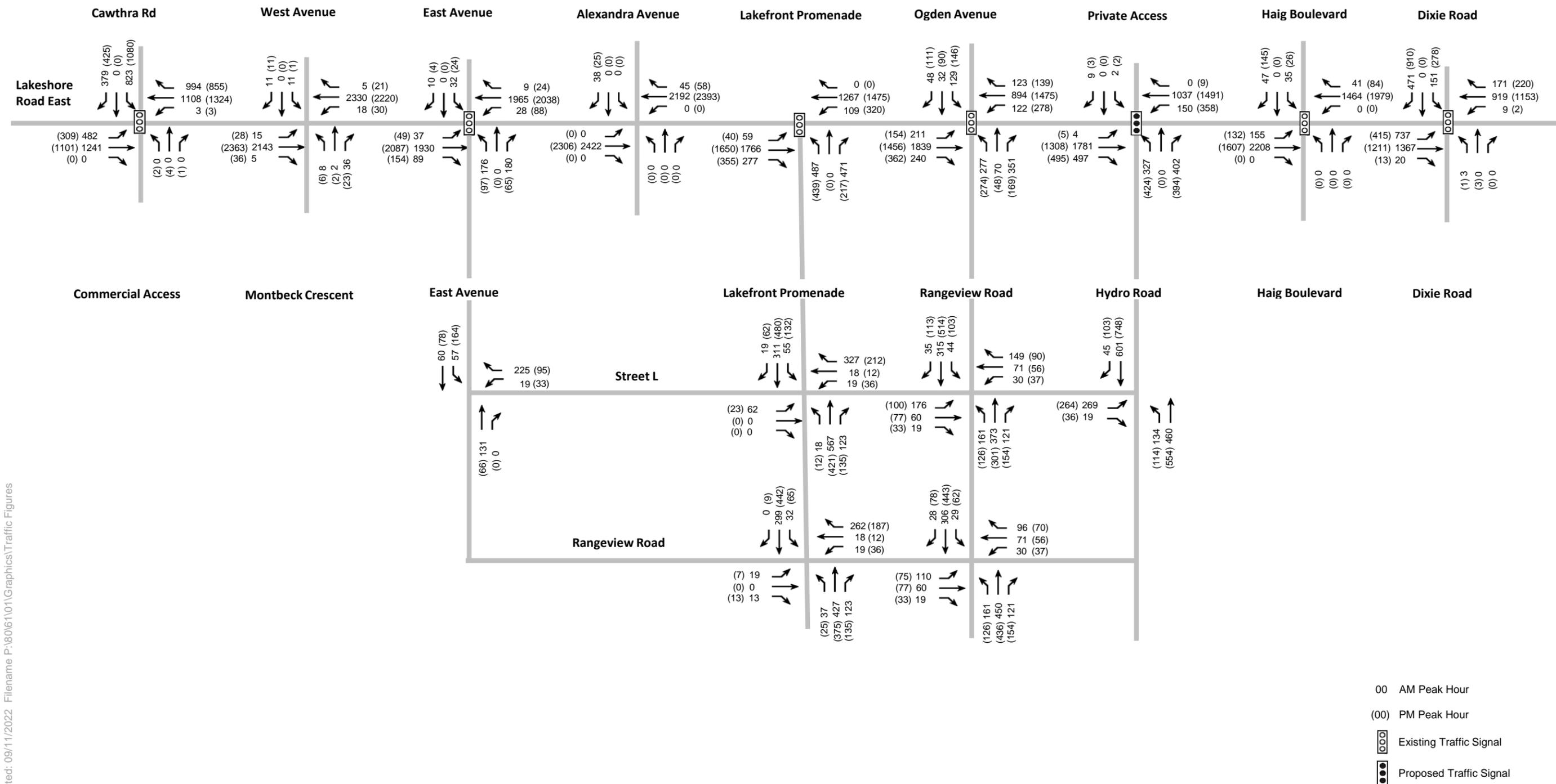


FIGURE 30 - SCENARIO 3B 2041 RANGEVIEW + LAKEVIEW VILLAGE SITE TRAFFIC VOLUMES (13,350 UNITS + DUAL LEFT)

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FIGURE 31 - SCENARIO 3B 2041 FUTURE TOTAL TRAFFIC VOLUMES (13,350 UNITS + DUAL LEFT)

8.0 TRAFFIC ANALYSIS

8.1 TRAFFIC ANALYSIS APPROACH AND ASSUMPTIONS

The approach and methodology utilized for the traffic analysis for this study generally aligned with the April 2021 TMIG report and are outlined as follows.

8.1.1 Study Area Intersections

Signalized Intersections

- Lakeshore Road East & East Avenue
- Lakeshore Road East & Lakefront Promenade
- Lakeshore Road East & Ogden Avenue
- Lakeshore Road East & Hydro Road
- Lakeshore Road East & Haig Boulevard
- Lakeshore Road East & Cawthra Road
- Lakeshore Road East & Dixie Road

Unsignalized Intersections

- Street L & East Avenue
- Street L & Lakefront Promenade
- Street L & Ogden Avenue
- Street L & Hydro Road
- Rangeview Road & East Avenue
- Rangeview Road & Lakefront Promenade
- Rangeview Road & Ogden Avenue
- Rangeview Road & Hydro Road

8.1.2 Time Periods Assessed

The traffic analysis evaluated both the morning peak and afternoon peak hours and aligned with the time periods assessed within the April 2021 TMIG report.

8.1.3 Signalized Intersections

The traffic operations analysis was undertaken at the area intersections using standard capacity analysis procedures. The analysis undertaken at intersections operating under traffic signal control was completed using the methodologies and procedures outlined in the Highway Capacity Manual (HCM) 2000 and using Synchro 11.0 software. The product of the signalized intersection evaluation is an intersection performance index (volume to capacity ratio or v/c), where a v/c index of 1.00 indicates 'at or near capacity' conditions.



HCM level of service (LOS) criteria for signalized intersections is as follow:

- LOS A: Control Delay \leq 10s
- LOS B: $10s <$ Control Delay \leq 20s
- LOS C: $20s <$ Control Delay \leq 35s
- LOS D: $35s <$ Control Delay \leq 55s
- LOS E: $55s <$ Control Delay \leq 80s
- LOS F: Control Delay $>$ 80s

8.1.4 Unsignalized Intersections

The unsignalized intersection analysis was completed using standard capacity procedures for intersections operating under “two-way” and “all-way” stop control and in accordance with the methodologies outlined in the Highway Capacity Manual 2000 (HCM2000).

The product of this analysis is a level of service (LOS) designation, ranging from LOS of A to F; which provides a relative indication of the level of delay experienced by motorists completing a turning manoeuvre at an intersection. LOS A represents conditions under which motorists would experience little delay and LOS F reflects conditions where more extended delays can be expected.

HCM level of service (LOS) criteria for unsignalized intersections is as follows:

- LOS A: Control Delay \leq 10s
- LOS B: $10s <$ Control Delay \leq 15s
- LOS C: $15s <$ Control Delay \leq 25s
- LOS D: $25s <$ Control Delay \leq 35s
- LOS E: $35s <$ Control Delay \leq 50s
- LOS F: Control Delay $>$ 50s

8.1.5 Network-Wide Parameters

Key analysis parameters were assumed based on default parameters summarized as follows:

Lane Widths

In order to align with the April 2021 TMIG report, the analysis for this study included 3.7 metre wide through lanes and 3.5 metre wide turning lanes.

Traffic Signal Timings

Traffic signal timings incorporated into the analysis were based upon information provided within the 2021 TMIG Synchro model. Although the traffic signal timings were optimized for each scenario analyzed for this study, cycle lengths were maintained at 130 seconds and 140 seconds, for the AM Peak and PM Peak period, respectively.



Base Saturation Flow Rates

The Synchro default saturation flow rate of 1,900 vehicles per hour was adopted for the analysis for this study.

Heavy Vehicle Assumptions

Heavy and medium truck percentages incorporated into the analysis were based upon information provided within the 2021 TMIG Synchro model.

Lost Time Adjustments

The lost time adjustment factor of -1.0 seconds (i.e. a total loss time per phase equal to the amber plus all-red time minus 1 second) was adopted for the traffic analysis in this study.

Peak Hour Factors

A peak hour factor (phf) of 1.0 was adopted for the traffic analysis in this study.

8.2 CAPACITY ANALYSIS AT SIGNALIZED INTERSECTIONS

A summary of the results of the detailed capacity analysis for the signalized intersections is provided in **TABLE 20**.

8.2.1 Traffic Analysis: Scenario 1 – 2,500 Rangeview Residential Units

All signalized intersection movements within the study area are expected to operate at v/c equal to or less than 1.0.

8.2.2 Traffic Analysis: Scenario 2 – 3,700 Rangeview Residential Units (with Ogden)

All signalized intersection movements within the study area are expected to operate at v/c equal to or less than 1.0.

8.2.3 Traffic Analysis: Scenario 3A – 5,300 Rangeview Residential Units (with Haig)

All signalized intersection movements within the study area are expected to operate at v/c equal to or less than 1.0 with the exception of the following movements:

- **Dixie Road & Lakeshore Road East:** the southbound right-turn movement operates with a v/c of 1.05 during the afternoon peak hour. In a busy urban environment, it is typical that particular movements will operate at, or slightly over capacity, during the peak periods of the day. It is also likely that traffic will divert and rebalance in the future as traffic patterns evolve. For these reasons, the intersection is expected to operate acceptably for all movements in relation to Scenario 3A.



- **Lakeshore Road & Haig Boulevard:** the northbound through/left movement operates with a v/c of 1.35 during the afternoon peak hour. It is likely that traffic will divert and rebalance in the future as traffic patterns evolve. This movement could also be improved with minor upgrades to the north approach, such as a southbound right-turn pocket. This intersection can also be monitored in the future when more accurate traffic data is available. For these reasons, the intersection is expected to operate acceptably for all movements in relation to Scenario 3A. It is however important to note that as no Rangeview-related volumes have been assigned to the intersection of Lakeshore Road & Haig Boulevard, the traffic concerns at this intersection are related only to the traffic generated by Lakeview Village and Serson.

8.2.4 Traffic Analysis: Scenario 3B – 5,300 Rangeview Residential Units (Dual left turns but no Haig)

All signalized intersection movements within the study area are expected to operate at v/c equal to or less than 1.0 with the exception of the following movements:

- **Dixie Road & Lakeshore Road East:** the southbound right-turn movement operates with a v/c of 1.04 during the afternoon peak hour. In a busy urban environment, it is typical that particular movements will operate at, or slightly over capacity, during the peak periods of the day. It is also likely that traffic will divert and rebalance in the future as traffic patterns evolve. For these reasons, the intersection is expected to operate acceptably for all movements in relation to Scenario 3B.

TABLE 20 CAPACITY ANALYSIS SUMMARY AT SIGNALIZED INTERSECTIONS

Movement	Scenario 1: Rangeview with 2,500 units Lakeview Village with 7,500 units No Ogden No Haig (with road improvements)			Scenario 2: Rangeview with 3,700 units Lakeview Village with 8,050 units Ogden connected			Scenario 3A: Rangeview with 5,300 units Lakeview Village with 8,050 units Haig connected			Scenario 3B: Rangeview with 5,300 units Lakeview Village with 8,050 units Dual left at Lakefront Promenade/No Haig		
	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
East Avenue & Lakeshore Road East												
EBL	0.69 (0.5)	94.6 (68.3)	F (E)	0.69 (0.45)	91.5 (66.5)	F (E)	0.54 (0.53)	71.2 (70)	E (E)	0.61 (0.45)	78.2 (66.3)	E (E)
EBT	0.85 (0.79)	36.3 (21.8)	D (C)	0.87 (0.96)	32.5 (36)	C (D)	0.95 (0.95)	42.5 (32.3)	D (C)	0.81 (0.91)	22.4 (24.8)	C (C)
NBL	0.91 (0.7)	67.9 (68.5)	E (E)	0.9 (0.69)	76 (66.4)	E (E)	0.89 (0.66)	71.6 (66.6)	E (E)	0.78 (0.57)	67.6 (64.8)	E (E)
NBT	0.42 (0.02)	36.9 (52.2)	D (D)	0.2 (0.04)	41.3 (51.8)	D (D)	0.24 (0.02)	40.4 (53)	D (D)	0.43 (0.04)	50.1 (56.3)	D (E)
SBL	0.13 (0.13)	33.2 (53.3)	C (D)	0.12 (0.13)	40.5 (52.7)	D (D)	0.12 (0.13)	39.1 (54.1)	D (D)	0.23 (0.17)	48.1 (57.6)	D (E)
SBT	0.01 (0)	31.8 (52.1)	C (D)	0.01 (0)	39.2 (51.5)	D (D)	0.01 (0)	37.8 (52.8)	D (D)	0.01 (0)	45.6 (56)	D (E)
WBL	0.78 (0.48)	96.5 (60.4)	F (E)	0.43 (0.5)	68.9 (61.8)	E (E)	0.29 (0.68)	68.3 (73.7)	E (E)	0.42 (0.52)	60.7 (58)	E (E)
WBT	0.7 (0.56)	23 (9.9)	C (A)	0.83 (0.75)	17.1 (14.9)	B (B)	0.91 (0.79)	26.8 (12.2)	C (B)	0.85 (0.75)	14.2 (9.8)	B (A)
WBR	0.01 (0.02)	13.5 (6.7)	B (A)	0.01 (0.02)	9.3 (7.1)	A (A)	0.01 (0.02)	10.4 (6.3)	B (A)	0.01 (0.02)	6.7 (5.6)	A (A)
OVERALL	0.87 (0.74)	36.5 (21)	D (C)	0.87 (0.86)	30 (29.1)	C (C)	0.93 (0.88)	38 (26.1)	D (C)	0.83 (0.83)	22.6 (20.7)	C (C)
Lakefront Promenade & Lakeshore Road East												
EBT	0.71 (0.78)	25.9 (32)	C (C)	0.8 (0.89)	18.8 (37.4)	B (D)	0.91 (0.93)	23.5 (39)	C (D)	0.93 (0.89)	36.3 (33.6)	D (C)
EBR	0.23 (0.46)	21.9 (27.8)	C (C)	0.25 (0.38)	14.8 (30.4)	B (C)	0.21 (0.36)	14.7 (29.2)	B (C)	0.3 (0.41)	22.5 (26.4)	C (C)
NBL	0.83 (0.79)	63.6 (57.5)	E (E)	0.84 (0.94)	67 (86.2)	E (F)	0.87 (0.94)	69.7 (88)	E (F)	0.75 (0.75)	54.3 (60.7)	D (E)
NBR	0.75 (0.15)	45 (40.3)	D (D)	0.8 (0.13)	51.8 (45.8)	D (D)	0.79 (0.1)	50.6 (46.1)	D (D)	0.61 (0.14)	52 (49.8)	D (D)
WBL	0.51 (0.9)	69.4 (87.8)	E (F)	0.65 (0.89)	70.2 (74.9)	E (E)	0.53 (0.94)	63.3 (87.3)	E (F)	0.36 (0.86)	50 (72.1)	D (E)
WBT	0.34 (0.4)	1.6 (5.3)	A (A)	0.49 (0.56)	6.6 (8.1)	A (A)	0.53 (0.61)	6.6 (7.6)	A (A)	0.7 (0.77)	15.9 (17.4)	B (B)
OVERALL	0.77 (0.82)	26.7 (32.9)	C (C)	0.85 (0.91)	23.2 (33.8)	C (C)	0.92 (0.94)	24.5 (34.1)	C (C)	0.78 (0.86)	33.5 (34.1)	C (C)
Ogden Avenue & Lakeshore Road East												
EBL	0.7 (0.63)	47.9 (49.8)	D (D)	0.75 (0.68)	57.8 (72.1)	E (E)	0.76 (0.68)	55.3 (62)	E (E)	0.79 (0.68)	68.5 (67.8)	E (E)
EBT	0.57 (0.44)	6.3 (3.8)	A (A)	0.95 (0.92)	36.9 (36.5)	D (D)	1 (0.85)	41.3 (31.4)	D (C)	0.96 (0.94)	31 (39.1)	C (D)
EBR	- (-)	- (-)	- (-)	0.21 (0.38)	23.3 (27.5)	C (C)	0.14 (0.32)	22.4 (27.2)	C (C)	0.22 (0.39)	21 (28.9)	C (C)
NBL	- (-)	- (-)	- (-)	0.85 (0.87)	64.3 (65)	E (E)	1 (1)	102.3 (112.2)	F (F)	0.79 (0.88)	55.1 (70.3)	E (E)
NBT	- (-)	- (-)	- (-)	0.2 (0.12)	46.8 (44.9)	D (D)	0.24 (0.17)	48.7 (52.5)	D (D)	0.2 (0.13)	45.1 (47.4)	D (D)
NBR	- (-)	- (-)	- (-)	0.7 (0.1)	58.7 (44.8)	E (D)	0.67 (0.07)	58.7 (51.5)	E (D)	0.77 (0.11)	62.7 (47.1)	E (D)
SBL	0.61 (0.93)	60.8 (114.4)	E (F)	0.47 (0.51)	48.6 (51.6)	D (D)	0.51 (0.57)	49.3 (54.7)	D (D)	0.42 (0.5)	44.8 (50.7)	D (D)
SBT	0.12 (0.24)	55.4 (63.1)	E (E)	0.15 (0.67)	51 (65.2)	D (E)	0.07 (0.64)	49.6 (65.3)	D (E)	0.13 (0.69)	47.5 (65.8)	D (E)
WBL	- (-)	- (-)	- (-)	0.55 (0.81)	64.2 (78.6)	E (E)	0.56 (0.76)	60.2 (70)	E (E)	0.75 (0.8)	75.9 (69.8)	E (E)
WBT	0.45 (0.56)	5.4 (6.3)	A (A)	0.6 (0.92)	16.5 (31.4)	B (C)	0.62 (0.94)	20.8 (30.5)	C (C)	0.65 (0.9)	22 (29.4)	C (C)
OVERALL	0.65 (0.64)	11.9 (14.5)	B (B)	0.93 (0.93)	37.4 (41.5)	D (D)	1.01 (0.97)	42.6 (40.5)	D (D)	0.94 (0.92)	36.6 (41.4)	D (D)



Movement	Scenario 1: Rangeview with 2,500 units Lakeview Village with 7,500 units No Ogden No Haig (with road improvements)			Scenario 2: Rangeview with 3,700 units Lakeview Village with 8,050 units Ogden connected			Scenario 3A: Rangeview with 5,300 units Lakeview Village with 8,050 units Haig connected			Scenario 3B: Rangeview with 5,300 units Lakeview Village with 8,050 units Dual left at Lakefront Promenade/No Haig		
	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
Hydro Road & Lakeshore Road East												
EBL	0.15 (0.2)	57.9 (65.4)	E (E)	0.15 (0.17)	74.7 (67.7)	E (E)	0.15 (0.17)	82.8 (65.3)	F (E)	0.15 (0.2)	76.4 (65.9)	E (E)
EBT	0.78 (0.66)	31.2 (46.3)	C (D)	0.88 (0.79)	16.5 (29)	B (C)	0.97 (0.74)	18.7 (20.5)	B (C)	0.91 (0.94)	15.7 (42.5)	B (D)
EBR	0.3 (0.51)	26.2 (56)	C (E)	0.44 (0.51)	5.9 (25.2)	A (C)	0.29 (0.38)	2.2 (17.2)	A (B)	0.44 (0.61)	3.3 (32.7)	A (C)
NBL	0.83 (0.81)	59.1 (63.9)	E (E)	0.86 (0.91)	65.9 (77.4)	E (E)	0.83 (0.78)	66.2 (66.1)	E (E)	0.97 (0.92)	89.3 (74.8)	F (E)
NBT	0.6 (0.19)	44.1 (42.4)	D (D)	0.8 (0.41)	57.2 (43.8)	E (D)	0.56 (0.15)	47.2 (46.1)	D (D)	0.88 (0.32)	67.5 (39.4)	E (D)
SBT	0.01 (0)	35.1 (40.2)	D (D)	0.01 (0)	37.3 (38.7)	D (D)	0.01 (0)	39.8 (44.5)	D (D)	0.01 (0)	37.8 (35.5)	D (D)
WBL	0.61 (0.83)	53.4 (72.4)	D (E)	0.75 (0.88)	86.7 (85.2)	F (F)	0.62 (0.77)	76.5 (66.9)	E (E)	0.82 (0.94)	98.9 (92.8)	F (F)
WBT	0.4 (0.56)	12.8 (6.2)	B (A)	0.48 (0.68)	9.8 (11.5)	A (B)	0.5 (0.76)	9.3 (12.6)	A (B)	0.48 (0.72)	10.9 (21.7)	B (C)
OVERALL	0.78 (0.74)	30.8 (37)	C (D)	0.86 (0.84)	23.6 (31.3)	C (C)	0.91 (0.78)	20.8 (23)	C (C)	0.92 (0.93)	26.7 (40.8)	C (D)
Lakeshore Road East & Haig Boulevard												
EBL	0.58 (0.45)	43.4 (49.4)	D (D)	0.63 (0.44)	50.4 (47.6)	D (D)	0.64 (0.97)	57.7 (146.1)	E (F)	0.65 (0.53)	51.2 (62.8)	D (E)
EBT	0.6 (0.43)	7.7 (3.2)	A (A)	0.68 (0.52)	4.9 (3.9)	A (A)	0.95 (0.81)	24 (21.2)	C (C)	0.73 (0.53)	5.1 (2.2)	A (A)
EBR	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	0.31 (0.18)	13.8 (11.3)	B (B)	- (-)	- (-)	- (-)
NBT	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	0.75 (1.35)	66.1 (228.2)	E (F)	- (-)	- (-)	- (-)
NBR	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	0.53 (0.18)	51.8 (37.8)	D (D)	- (-)	- (-)	- (-)
SBT	0.05 (0.08)	57.7 (61.4)	E (E)	0.11 (0.19)	58 (61.4)	E (E)	0.38 (0.41)	49.6 (41.3)	D (D)	0.11 (0.3)	56.5 (62)	E (E)
WBL	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	0.72 (0.68)	52.7 (58.1)	D (E)	- (-)	- (-)	- (-)
WBT	0.49 (0.72)	23.2 (23)	C (C)	0.61 (0.85)	20.8 (27.4)	C (C)	0.65 (0.97)	19.8 (39.4)	B (D)	0.63 (0.86)	17.8 (17.3)	B (B)
OVERALL	0.59 (0.66)	15.9 (17.4)	B (B)	0.67 (0.77)	14 (19.8)	B (B)	0.88 (1.12)	27.6 (51.4)	C (D)	0.71 (0.79)	12.9 (14.6)	B (B)
Lakeshore Road East & Cawthra Road												
EBL	0.91 (0.9)	54.8 (65.1)	D (E)	0.96 (1)	69.2 (93.4)	E (F)	0.76 (0.68)	69.3 (93.6)	E (F)	0.96 (1)	69.3 (93.5)	E (F)
EBT	0.46 (0.5)	14.5 (21.5)	B (C)	0.54 (0.56)	15.9 (21.5)	B (C)	1.00 (0.85)	16.4 (22)	B (C)	0.55 (0.58)	16 (21.9)	B (C)
EBR	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	0.14 (0.32)	- (-)	- (-)	- (-)	- (-)	- (-)
NBL	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	0.95 (1)	- (-)	- (-)	- (-)	- (-)	- (-)
NBT	- (0.21)	- (67.1)	- (E)	- (0.21)	- (67.1)	- (E)	0.24 (0.17)	- (67.1)	- (E)	- (0.21)	- (67.1)	- (E)
NBR	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	0.66 (0.07)	- (-)	- (-)	- (-)	- (-)	- (-)
SBL	0.59 (0.69)	39.4 (39.7)	D (D)	0.76 (0.9)	46.5 (58)	D (E)	0.52 (0.57)	52.6 (74.1)	D (E)	0.77 (0.96)	47.2 (71.4)	D (E)
SBT	0.58 (0.61)	39 (32)	D (C)	0.74 (0.78)	45.3 (40.9)	D (D)	0.07 (0.64)	50.7 (46.1)	D (D)	0.75 (0.84)	46.2 (45.2)	D (D)
SBR	0.43 (0.47)	15.6 (16.7)	B (B)	0.43 (0.5)	15.9 (19.6)	B (B)	- (-)	15.9 (19.6)	B (B)	0.43 (0.5)	15.9 (19.6)	B (B)
WBL	0.02 (-)	40.1 (-)	D (-)	0.02 (0.02)	39.1 (26.1)	D (C)	0.56 (0.76)	39.4 (26.1)	D (C)	0.02 (0.02)	41.5 (26.1)	D (C)
WBT	0.78 (0.9)	46.7 (52.2)	D (D)	0.93 (0.94)	57.1 (53.2)	E (D)	0.62 (0.94)	64.8 (62.7)	E (E)	0.96 (0.95)	62.8 (55.6)	E (E)
WBR	0.67 (0.52)	10.2 (10.2)	B (B)	0.81 (0.66)	13.1 (11.9)	B (B)	- (-)	20.5 (13.9)	C (B)	0.89 (0.68)	22.5 (12.4)	C (B)
OVERALL	0.83 (0.82)	29.1 (33.4)	C (C)	0.95 (0.94)	34.7 (38.4)	C (D)	1.00 (0.97)	38.7 (43.5)	D (D)	0.99 (0.98)	37.9 (41.1)	D (D)



Movement	Scenario 1: Rangeview with 2,500 units Lakeview Village with 7,500 units No Ogden No Haig (with road improvements)			Scenario 2: Rangeview with 3,700 units Lakeview Village with 8,050 units Ogden connected			Scenario 3A: Rangeview with 5,300 units Lakeview Village with 8,050 units Haig connected			Scenario 3B: Rangeview with 5,300 units Lakeview Village with 8,050 units Dual left at Lakefront Promenade/No Haig		
	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
Dixie Road & Lakeshore Road East												
EBL	0.91 (0.71)	44.4 (37.1)	D (D)	0.93 (0.65)	49.4 (35)	D (D)	0.98 (0.67)	38.3 (35)	D (D)	0.98 (0.65)	52.5 (26.8)	D (C)
EBT	0.46 (0.4)	5.7 (25.8)	A (C)	0.53 (0.48)	6.4 (19.8)	A (B)	0.56 (0.51)	18.9 (32.9)	B (C)	0.56 (0.49)	6.5 (23.7)	A (C)
NBT	0.02 (0.01)	46.2 (43.7)	D (D)	0.02 (0.01)	46.8 (44.6)	D (D)	0.02 (0.01)	46.8 (44.9)	D (D)	0.02 (0.01)	46.8 (44.9)	D (D)
SBT	0.7 (0.92)	61.5 (85.9)	E (F)	0.69 (0.96)	61.3 (95.6)	E (F)	0.69 (0.97)	61.3 (99.6)	E (F)	0.69 (0.97)	61.3 (99.6)	E (F)
SBR	0.42 (0.91)	15.2 (46.1)	B (D)	0.48 (0.99)	14.6 (58.5)	B (E)	0.52 (1.05)	15.2 (74.5)	B (E)	0.49 (1.04)	14.7 (71.3)	B (E)
WBT	0.72 (0.79)	45.7 (42.9)	D (D)	0.97 (0.95)	70.4 (61.2)	E (E)	0.98 (0.98)	72.8 (68.7)	E (E)	0.97 (0.98)	70.9 (68)	E (E)
WBR	0.18 (0.24)	35.4 (30.4)	D (C)	0.18 (0.27)	37.5 (35.3)	D (D)	0.18 (0.27)	37.5 (35.9)	D (D)	0.18 (0.27)	37.5 (35.9)	D (D)
OVERALL	0.81 (0.86)	28.2 (41.1)	C (D)	0.9 (0.97)	35.3 (47.2)	D (D)	0.93 (1.02)	37.7 (56.5)	D (E)	0.93 (1.01)	35.5 (52.5)	D (D)



8.3 QUEUING ASSESSMENT AT SIGNALIZED INTERSECTIONS

A summary of the queuing assessment for key movements at the signalized intersections along Lakeshore Road for Scenario 3A and 3B, is provided in **Table 21**. The details of this queuing assessment can be used to inform the future design of area intersections.

An updated queuing assessment is recommended to be undertaken in the future as development progresses and as more accurate traffic data becomes available.

TABLE 21 QUEUING SUMMARY AT SIGNALIZED INTERSECTIONS (KEY MOVEMENTS)

Movement	Scenario 3A: Rangeview with 5,300 units Lakeview Village with 8,050 units Haig connected		Scenario 3B: Rangeview with 5,300 units Lakeview Village with 8,050 units Dual left at Lakefront Promenade/No Haig	
	50 th Percentile Queue (metres)	95 th Percentile Queue (metres)	50 th Percentile Queue (metres)	95 th Percentile Queue (metres)
East Avenue & Lakeshore Road East				
NBL	77 (35)	153 (55)	45 (24)	70 (41)
NBT	16 (0)	38 (1)	23 (0)	47 (13)
WBL	3 (35)	7 (86)	7 (26)	12 (39)
WBT	258 (141)	180 (165)	100 (95)	109 (106)
Lakefront Promenade & Lakeshore Road East				
NBL	79 (94)	125 (152)	64 (62)	81 (78)
NBR	95 (0)	162 (19)	28 (0)	73 (22)
WBL	22 (94)	22 (101)	25 (98)	39 (111)
WBT	53 (60)	63 (74)	63 (66)	98 (106)
Ogden Avenue & Lakeshore Road East				
NBL	71 (59)	98 (99)	63 (58)	97 (84)
NBT	17 (12)	29 (24)	16 (12)	29 (22)
NBR	36 (0)	65 (6)	52 (0)	91 (19)
WBL	23 (62)	58 (110)	31 (70)	74 (145)
WBT	94 (158)	93 (283)	90 (123)	74 (82)
Hydro Road & Lakeshore Road East				
NBL	64 (61)	95 (85)	85 (101)	146 (159)
NBT	43 (0)	71 (13)	85 (11)	146 (40)
WBL	20 (65)	40 (68)	38 (106)	74 (144)
WBT	38 (96)	41 (137)	32 (97)	33 (123)
Lakeshore Road East & Haig Boulevard				
NBT	38 (147)	60 (213)	- (-)	- (-)
NBR	27 (0)	55 (22)	- (-)	- (-)
WBL	44 (48)	65(46)	- (-)	- (-)
WBT	97 (250)	112 (251)	102 (154)	124 (195)



8.4 CAPACITY ANALYSIS AT UNSIGNALIZED INTERSECTIONS

A summary of results of the detailed capacity analysis for the unsignalized intersections is provided in **Table 22**.

8.4.1 Traffic Analysis: Scenario 1 – 2,500 Rangeview Residential Units

All unsignalized intersection movements within the study area are expected to operate at v/c equal to or less than 1.0 with the exception of the following movements:

- **Lakefront Promenade & Rangeview Road:** with all-way stop control, the southbound left/through/right movement operates with a v/c of 1.01 during the afternoon peak hour. As this represents the interim road network condition, it is expected that when Ogden Avenue is connected and the road network is built-out as development progresses, the operations at this intersection would improve.
- **Hydro Road & Rangeview Road:** with all-way stop control, the southbound through/right movement operates with a v/c of 1.14 during the afternoon peak hour. As this represents the interim road network condition, it is expected that when Ogden Avenue is connected and the road network is built-out as development progresses, the operations at this intersection would improve.

8.4.2 Traffic Analysis: Scenario 2 – 3,700 Rangeview Residential Units (with Ogden)

All unsignalized intersection movements within the study area are expected to operate at v/c equal to or less than 1.0 with the exception of the following movements:

- **Ogden Avenue & Street L:** with all-way stop control, the northbound left/through/right movement operates with a v/c of 1.16 and 1.01, during the morning and afternoon peak hour, respectively.
- **Ogden Avenue & Rangeview Road:** with all-way stop control, the northbound left/through/right movement operates with a v/c of 1.18 and 1.17, during the morning and afternoon peak hour, respectively.

It is recommended that these intersections be assessed in the future when updated traffic volume data is available, in order to determine if traffic signals are warranted or if two-way stop control could be implemented, in combination with a controlled pedestrian crossing (i.e. intersection pedestrian signal or pedestrian crossover) on the major street.

8.4.3 Traffic Analysis: Scenario 3A – 5,300 Rangeview Residential Units (with Haig)

All unsignalized intersection movements within the study area are expected to operate at v/c equal to or less than 1.0.



8.4.4 Traffic Analysis: Scenario 3B – 5,300 Rangeview Residential Units (Dual left turns but no Haig)

All unsignalized intersection movements within the study area are expected to operate at v/c equal to or less than 1.0, with the exception of a number of intersections along Street L, as well as at Ogden Avenue & Rangeview Road and at Hydro Road & Rangeview Road.

It is recommended that these intersections be assessed in the future when updated traffic volume data is available, in order to determine if traffic signals are warranted or if two-way stop control could be implemented, with a controlled pedestrian crossing on the major street.



TABLE 22 UNSIGNALIZED INTERSECTION CAPACITY SUMMARY

Movement	Scenario 1: Rangeview with 2,500 units Lakeview Village with 7,500 units No Ogden No Haig (with road improvements)			Scenario 2: Rangeview with 3,700 units Lakeview Village with 8,050 units Ogden connected			Scenario 3A: Rangeview with 5,300 units Lakeview Village with 8,050 units Haig connected			Scenario 3B: Rangeview with 5,300 units Lakeview Village with 8,050 units Dual left at Lakefront Promenade/No Haig		
	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
East Avenue & Street L												
WBLR	0.13 (0.03)	8.8 (7.3)	A (A)	0.27 (0.16)	8.6 (8.1)	A (A)	0.3 (0.14)	8.7 (8)	A (A)	0.27 (0.14)	8.4 (8)	A (A)
NBTR	0.68 (0.17)	16.4 (8.1)	C (A)	0.24 (0.12)	9 (8.1)	A (A)	0.23 (0.08)	9 (7.9)	A (A)	0.17 (0.07)	8.5 (7.8)	A (A)
SBTL	0.28 (0.27)	9.7 (8.8)	A (A)	0.13 (0.3)	8.5 (9.3)	A (A)	0.09 (0.3)	8.3 (9.3)	A (A)	0.14 (0.29)	8.5 (9.2)	A (A)
Lakefront Promenade & Street L												
EBLTR	0.05 (0.01)	9.9 (9.9)	A (A)	0.1 (0.04)	11.7 (11.3)	B (B)	0.12 (0.05)	11.3 (10.7)	B (B)	0.14 (0.05)	12.5 (11.6)	B (B)
WBLTR	0 (0)	0 (0)	A (A)	0.54 (0.41)	16.3 (13.9)	C (B)	0.49 (0.34)	14.5 (12.2)	B (B)	0.64 (0.46)	20 (14.9)	C (B)
NBLTR	0.99 (0.75)	50.4 (20.2)	F (C)	0.95 (0.78)	48 (25.7)	E (D)	0.81 (0.59)	27.9 (15.9)	D (C)	1.19 (0.87)	124.5 (35.5)	F (E)
SBLTR	0.43 (0.88)	11.4 (31.5)	B (D)	0.61 (0.97)	18.5 (51.3)	C (F)	0.47 (0.89)	14.2 (36.2)	B (E)	0.66 (1.08)	21.5 (83.7)	C (F)
Ogden Avenue & Street L												
EBLTR	0.08 (0.02)	6.8 (6.7)	A (A)	0.48 (0.42)	17.4 (16.7)	C (C)	0.45 (0.31)	15.9 (13.6)	C (B)	0.56 (0.43)	20.5 (16.9)	C (C)
WBLTR	0.1 (0.03)	7.7 (7.5)	A (A)	0.43 (0.36)	15.7 (15.2)	C (C)	0.39 (0.27)	14.1 (12.7)	B (B)	0.52 (0.38)	18.5 (15.6)	C (C)
NBLTR	0.02 (0.12)	7.2 (7.4)	A (A)	1.16 (1.01)	113.8 (65.3)	F (F)	0.93 (0.67)	46.2 (20.6)	E (C)	1.25 (0.97)	149.7 (57.3)	F (F)
SBLTR	- (-)	- (-)	- (-)	0.68 (1.2)	23.4 (128.1)	C (F)	0.5 (1)	16 (58.5)	C (F)	0.74 (1.34)	28.5 (184)	D (F)
Hydro Road & Street L												
EBLTR	- (-)	- (-)	- (-)	0.5 (0.51)	17.1 (17.3)	C (C)	0.36 (0.33)	12.5 (12.6)	B (B)	0.56 (0.56)	19 (18.6)	C (C)
NBLTR	0.87 (0.77)	29.1 (21.5)	D (C)	0.92 (0.97)	43.5 (54.5)	E (F)	0.59 (0.57)	15.7 (15.5)	C (C)	0.99 (1.03)	58.7 (70.5)	F (F)
SBTR	0.53 (0.98)	12.8 (48.8)	B (E)	0.96 (1.23)	51.1 (139.1)	F (F)	0.56 (0.85)	14.6 (29.7)	B (D)	1.01 (1.38)	64.1 (201.2)	F (F)
East Avenue & Rangeview Road												
WBLR	0.6 (0.15)	12.4 (7.4)	B (A)	0.17 (0.09)	7.3 (7)	A (A)	0.16 (0.06)	7.1 (6.8)	A (A)	0.11 (0.05)	7 (6.8)	A (A)
NBTR	- (-)	- (-)	- (-)	0.01 (0)	7.4 (7.3)	A (A)	0.02 (0.01)	7.4 (7.2)	A (A)	0.02 (0.01)	7.3 (7.2)	A (A)
SBTL	0.28 (0.2)	10.1 (8.3)	B (A)	0.08 (0.15)	7.8 (8)	A (A)	0.05 (0.13)	7.6 (7.8)	A (A)	0.08 (0.13)	7.6 (7.8)	A (A)
Lakefront Promenade & Rangeview Road												
EBLTR	0.03 (0.01)	10.7 (10.8)	B (B)	0.05 (0.03)	10.1 (10.2)	B (B)	0.05 (0.03)	9.4 (9.3)	A (A)	0.06 (0.04)	10.6 (10.3)	B (B)
WBLTR	0.43 (0.21)	13.2 (11.1)	B (B)	0.42 (0.36)	13 (12.6)	B (B)	0.35 (0.27)	11 (10.6)	B (B)	0.49 (0.39)	14.5 (13.1)	B (B)
NBLTR	0.95 (0.24)	71.3 (32.4)	F (D)	0.16 (0.08)	24.9 (21.5)	C (C)	0.12 (0.04)	14.7 (12.3)	B (B)	0.07 (0.04)	36.8 (24.4)	E (C)
SBLTR	0.51 (1.01)	14.9 (58.5)	B (F)	0.5 (0.81)	14.4 (27.9)	B (D)	0.32 (0.65)	11.1 (17.3)	B (C)	0.53 (0.8)	15.7 (27.6)	C (D)
Ogden Avenue & Rangeview Road												
EBLTR	0.22 (0.3)	8.8 (9.1)	A (A)	0.36 (0.37)	14.2 (15.3)	B (C)	0.28 (0.24)	12.2 (11.8)	B (B)	0.38 (0.38)	14.8 (15.6)	B (C)
WBLTR	0.2 (0.14)	8.7 (8)	A (A)	0.34 (0.32)	13.4 (14.3)	B (B)	0.27 (0.21)	11.4 (11.3)	B (B)	0.38 (0.34)	14.3 (14.7)	B (B)
NBLTR	- (-)	- (-)	- (-)	1.18 (1.17)	116.6 (117)	F (F)	0.84 (0.69)	29.3 (19.7)	D (C)	1.21 (1.16)	131.8 (114.9)	F (F)
SBLTR	0.21 (0.06)	8.7 (8)	A (A)	0.59 (0.97)	17.9 (54.9)	C (F)	0.37 (0.71)	12.3 (20.5)	B (C)	0.61 (1.02)	19 (67.7)	C (F)



Movement	Scenario 1: Rangeview with 2,500 units Lakeview Village with 7,500 units No Ogden No Haig (with road improvements)			Scenario 2: Rangeview with 3,700 units Lakeview Village with 8,050 units Ogden connected			Scenario 3A: Rangeview with 5,300 units Lakeview Village with 8,050 units Haig connected			Scenario 3B: Rangeview with 5,300 units Lakeview Village with 8,050 units Dual left at Lakefront Promenade/No Haig		
	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
Hydro Road & Rangeview Road												
EBLR	0.49 (0.29)	16 (12.8)	C (B)	0.4 (0.47)	14.2 (15.7)	B (C)	0.26 (0.28)	10.9 (11.5)	B (B)	0.44 (0.5)	15.1 (16.6)	C (C)
NBLT	0.93 (0.82)	43.2 (28.4)	E (D)	0.75 (0.79)	23.3 (27.1)	C (D)	0.5 (0.47)	12.9 (12.9)	B (B)	0.8 (0.82)	27.9 (30.2)	D (D)
SBTR	0.66 (1.14)	19.5 (98.8)	C (F)	0.86 (1.1)	32.5 (90)	D (F)	0.51 (0.75)	12.9 (21.2)	B (C)	0.89 (1.23)	36.6 (136.3)	E (F)



8.5 TRAFFIC ANALYSIS SUMMARY

A summary of the traffic analysis undertaken for the four scenarios is described below.

Scenario 1: Rangeview with 2,500 units

In consideration of Rangeview with 2,500 residential units and Lakeview Village with 7,500 residential units + 67% development of the non-residential, the combined sites are expected to generate a total of 2,890 and 3,054 two-way vehicle trips, during the morning and afternoon peak period, respectively.

The Scenario 1 road network includes only the list of minor road improvements to be undertaken along Lakeshore Road.

All signalized intersection movements within the study area are expected to operate at v/c equal to, or less than 1.0.

All unsignalized intersection movements within the study area are expected to operate at v/c equal to, or less than 1.0, with the exception of the southbound left/through/right movement at Lakefront Promenade & Rangeview Road and the southbound through/right movement, during the afternoon peak hour. As the concerns noted at the unsignalized intersections occur as part of the interim road network condition, it is expected that when Ogden Avenue is connected, and the road network is built-out as development progresses, operations at the unsignalized intersections noted above would improve.

Based on the foregoing, the traffic related to the Scenario 1 development proposal can be acceptably accommodated on the future transportation network.

Scenario 2: Rangeview with 3,700 units + Ogden connected

In consideration of Rangeview with 3,700 residential units + 100% development of the non-residential and Lakeview Village with 8,050 residential units + 100% development of the non-residential, the combined sites are expected to generate a total of 3,841 and 4,229 two-way vehicle trips during the morning and afternoon peak period, respectively.

The Scenario 2 road network includes the improvements along Lakeshore Road related to Scenario 1, in addition to the connection of Ogden Avenue to Lakeshore Road.

All signalized intersection movements within the study area are expected to operate at v/c equal to or less than 1.0.

All unsignalized intersection movements within the study area are expected to operate at v/c equal, to or less than 1.0, with the exception of the northbound left/through/right movement operates at Ogden Avenue & Street L and the northbound left/through/right movement, during the morning and afternoon peak hour. It is recommended that these unsignalized intersections be assessed in the future when updated traffic volume data is available, in order to determine if traffic signals are warranted or if two-way stop control could be implemented, in combination with a controlled pedestrian crossing (i.e. intersection pedestrian signal or pedestrian crossover) on the major street.



Based on the foregoing, the traffic related to the Scenario 2 development proposal can be acceptably accommodated on the future transportation network.

Scenario 3A: Rangeview with 5,300 units + Ogden + Haig

In consideration of Rangeview with 5,300 residential units + 100% development of the non-residential and Lakeview Village with 8,050 residential units + 100% development of the non-residential and 100% of the Serson lands developed, the combined sites are expected to generate a total of 4,337 and 4,739 two-way vehicle trips, during the morning and afternoon peak period, respectively.

The Scenario 3A road network includes the improvements along Lakeshore Road related to Scenario 1, in addition to the connection of Ogden Avenue to Lakeshore Road and the connection of Haig Boulevard to Lakeshore Road.

All signalized intersection movements within the study area are expected to operate at v/c equal to, or less than 1.0, with the exception of the southbound right-turn movement at Dixie Road & Lakeshore Road and the northbound through/left movement at Lakeshore Road & Haig Boulevard, during the afternoon peak hour. In a busy urban environment, it is typical that particular movements will operate at, or slightly over capacity, during the peak periods of the day. It is also likely that traffic will divert and rebalance in the future as traffic patterns evolve. Minor improvements on the north leg of Haig Boulevard at Lakeshore Road could also improve traffic operations, hence this location should be monitored in the future as development progresses. It is however important to note that as no Rangeview-related volumes have been assigned to the intersection of Lakeshore Road & Haig Boulevard, the traffic concerns at this intersection are related only to the traffic generated by Lakeview Village and Serson.

All unsignalized intersection movements within the study area are expected to operate at v/c equal to, or less than 1.0.

Based on the foregoing, the traffic related to the Scenario 3A development proposal can be acceptably accommodated on the future transportation network.

Scenario 3B: Rangeview with 5,300 units + Ogden + Northbound Dual Left-Turn (no Haig)

In consideration of Rangeview with 5,300 residential units + 100% development of the non-residential and Lakeview Village with 8,050 residential units + 100% development of the non-residential, the combined sites are expected to generate a total of 4,138 and 4,517 two-way vehicle trips, during the morning and afternoon peak period, respectively.

The Scenario 3B road network includes the improvements along Lakeshore Road related to Scenario 1, in addition to the connection of Ogden Avenue to Lakeshore Road, and the northbound dual left-turn implemented on Lakeshore Road at Lakefront Promenade. The connection of Haig Boulevard to Lakeshore Road is not included as part of Scenario 3B.

All signalized intersection movements within the study area are expected to operate at v/c equal to or less than 1.0, with the exception of the southbound right-turn movement at Dixie Road and Lakeshore Road, during the afternoon peak hour. In a busy urban environment, it is typical that particular movements will operate at, or slightly over capacity, during the peak periods of the day. It is also likely that traffic will divert and rebalance in the future as traffic patterns evolve.

All unsignalized intersection movements within the study area are expected to operate at v/c equal to or less than 1.0, with the exception of a number of intersections along Street L, as well as at Ogden Avenue & Rangeview Road and at Hydro Road & Rangeview Road. It is recommended that these intersections be assessed in the future when updated traffic volume data is available, in order to determine if traffic signals are warranted or if two-way stop control could be implemented with a controlled pedestrian crossing on the major street.

Based on the foregoing, the traffic related to the Scenario 3B development proposal can be acceptably accommodated on the future transportation network.

Conclusions

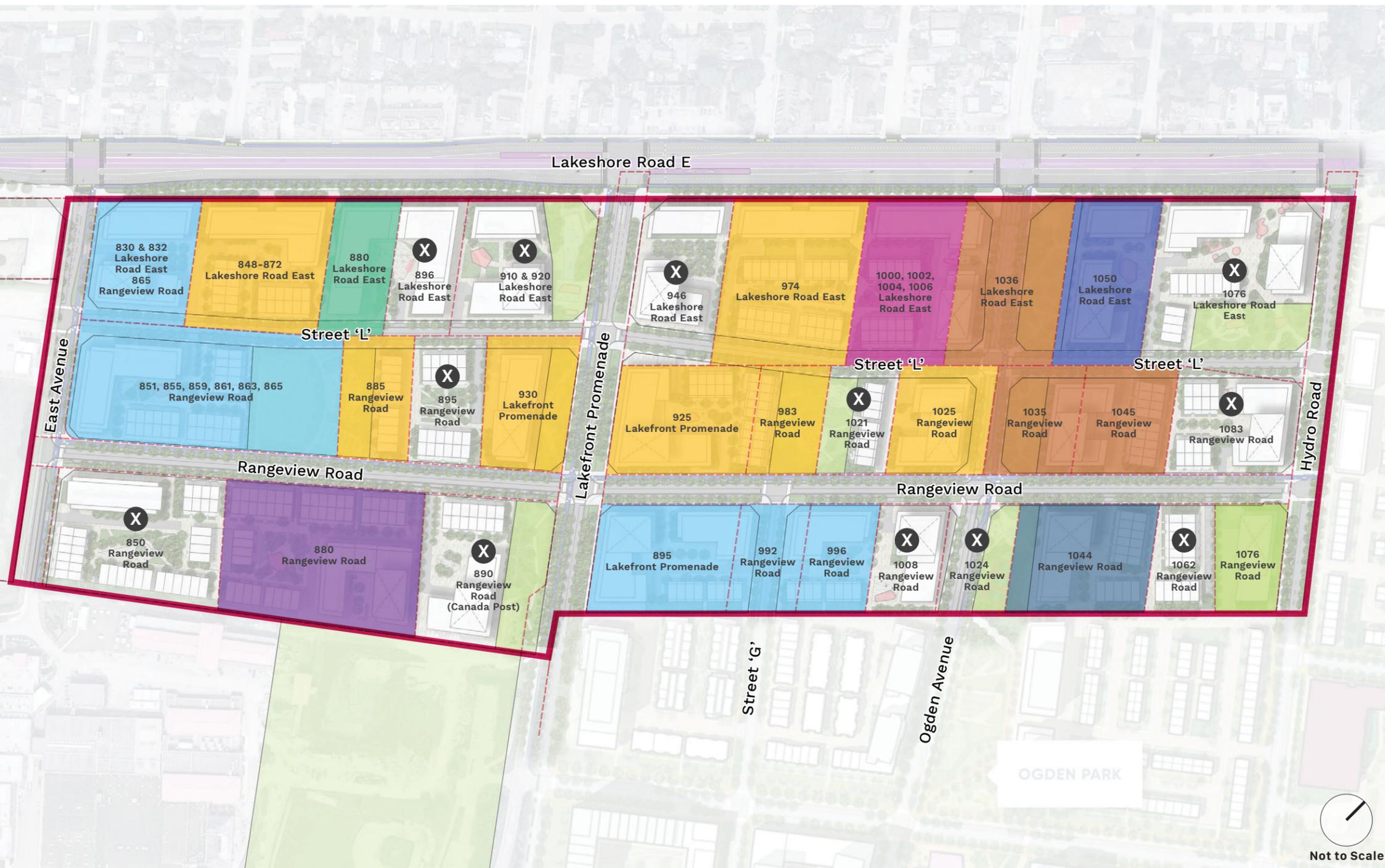
The traffic analysis indicated that the future transportation network, with BRT along Lakeshore Road East, can acceptably accommodate the travel demands of the Rangeview Site with 5,300 residential units and 95,000 ft² GFA of non-residential uses, if the road network includes the planned upgrades along Lakeshore Road, in addition to the extension of Ogden Avenue from Lakeshore Road East to Rangeview Road, and **either** the connection of Haig Boulevard to Lakeshore Road East **or** a dual northbound left-turn on Lakefront Promenade at Lakeshore Road East.

Appendix A: Rangeview Estates Landowner Map

RANGEVIEW ESTATES

Rangeview Development Master Plan

Ownership Map



- Dorsay (Lakeshore) Inc.
Dorsay (Lakefront Promenade) Inc.
Dorsay (Rangeview) Inc. (Dorsay Development Corp.)
- Elgroup Holdings Inc.
Elias Bros. Construction Limited (Leonard Elia)
- Rangeview 1035 Holding Inc.
Rangeview 1045 Holding Inc.
297238 Ontario Inc. (Bert Rebelo - Oasis Convention)
- 2120412 Ontario Inc. (Jason Segato - Xtreme Tire)
- Whiterock 880 Rangeview Inc. (Dream Unlimited Corp.)
- 447111 Ontario Limited (Norstar Group)
- 1127792 Ontario Limited (Dino Collini)
- ILSCO of Canada Limited (Thomas Quinn)
- Kotyck Investments Ltd. (Michael Kotyck)

Legend Rangeview Estates Precinct Area (Gross Area = 25.67 ha) X Non-Participating Landowners Existing Parcel Lines Development Parcels

Appendix B: Rangeview Estates Master Plan



Rangeview Master Plan

Concept Plan V5.1 (FINAL)

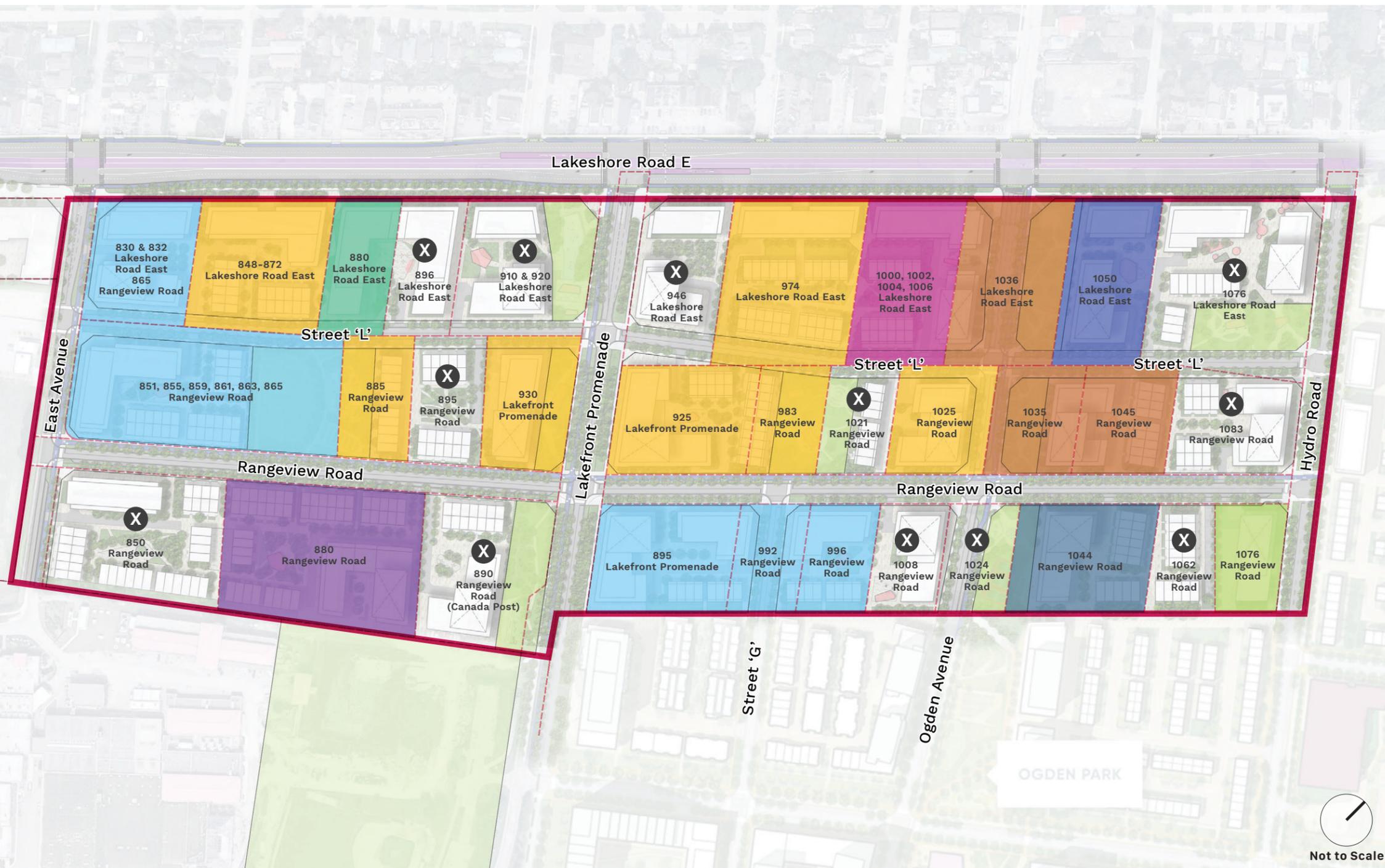
Rangeview Estates Precinct Area
Mississauga ON

October 2022

RANGEVIEW ESTATES

Rangeview Development Master Plan

Ownership Map

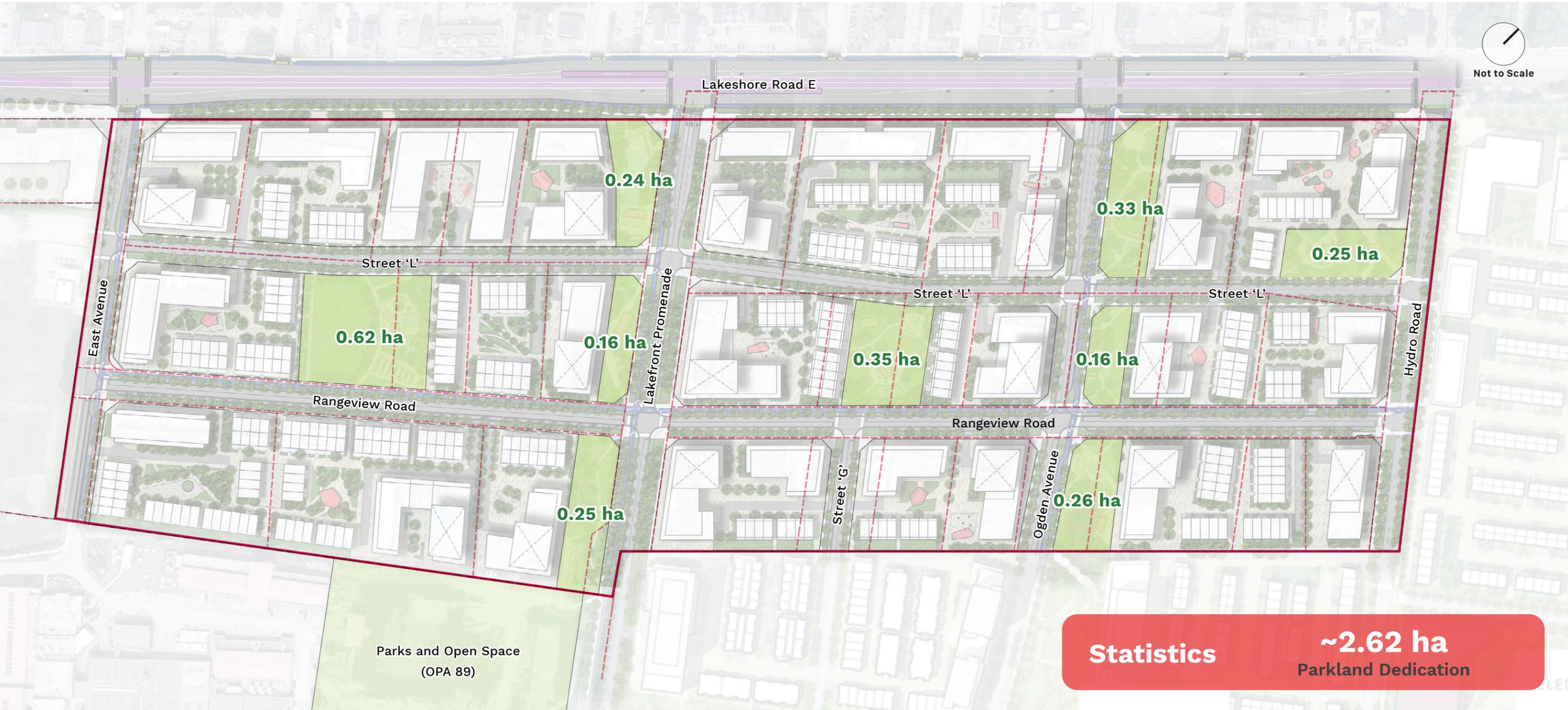


- Dorsay (Lakeshore) Inc.
Dorsay (Lakefront Promenade) Inc.
Dorsay (Rangeview) Inc. (Dorsay Development Corp.)
- Elgroup Holdings Inc.
Elias Bros. Construction Limited (Leonard Elia)
- Rangeview 1035 Holding Inc.
Rangeview 1045 Holding Inc.
1207238 Ontario Limited Inc. (Bert Rebelo - Oasis Convention)
- 2120412 Ontario Inc. (Jason Segato - Xtreme Tire)
- Whiterock 880 Rangeview Inc. (Dream Unlimited Corp.)
- 447111 Ontario Limited (Norstar Group)
- 1127792 Ontario Limited (Dino Collini)
- ILSCO of Canada Limited (Thomas Quinn)
- Kotyck Investments Ltd. (Michael Kotyck)

Legend Rangeview Estates Precinct Area (Gross Area = 25.67 ha) X Non-Participating Landowners Existing Parcel Lines Development Parcels

PARKLAND DEDICATION

Parkland Block Concept



Legend Rangeview Estates Precinct Area Existing Parcel Lines Development Parcels Parkland Blocks

PARKLAND DEDICATION

Rangeview Development Master Plan

Participating Landowners Dedication

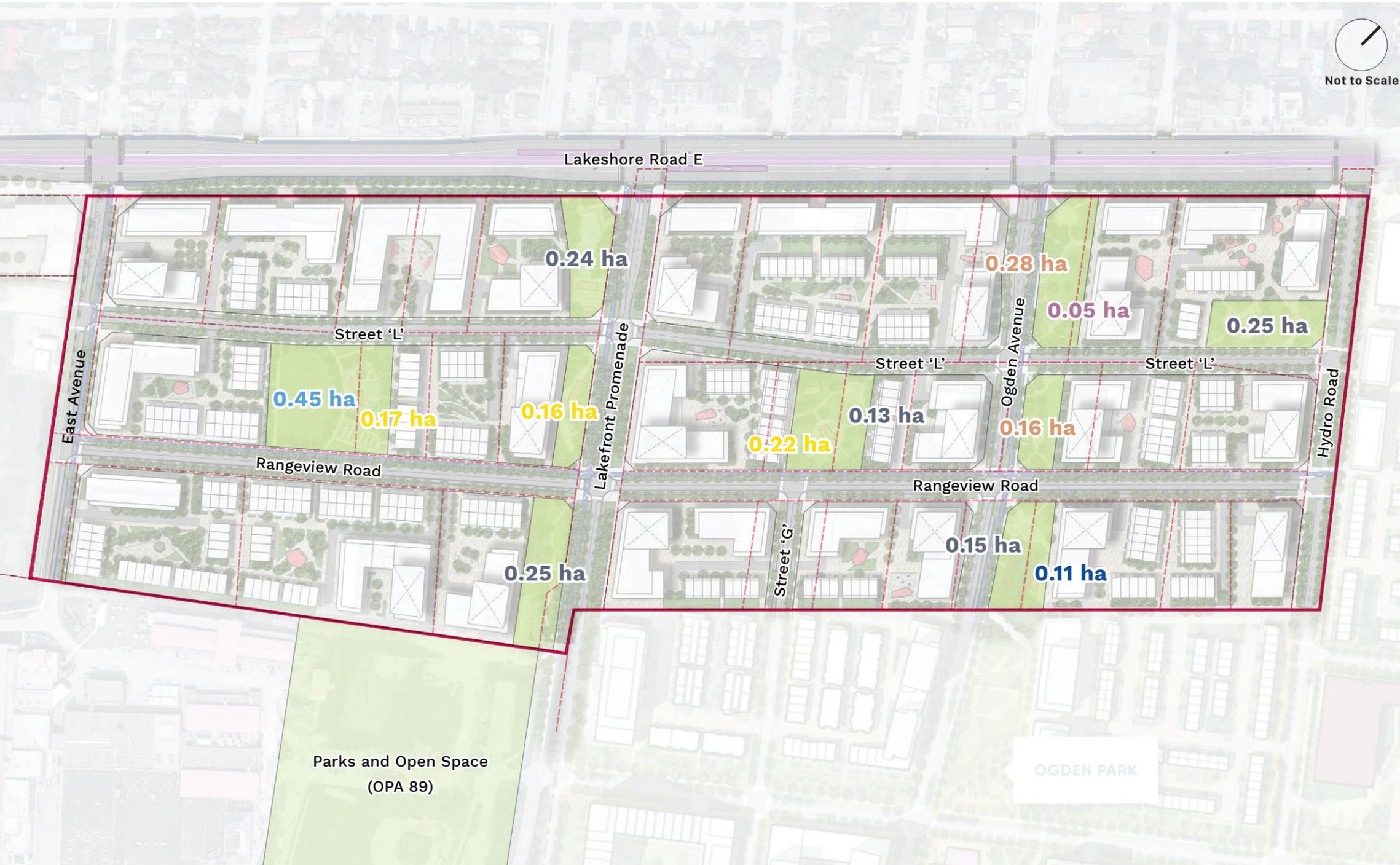


Statistics **± 1.60 hectares**
Parkland Dedication

Legend Rangeview Estates Precinct Area Existing Parcel Lines Development Parcels Parkland Blocks Non-Participating Landowners

PARKLAND DEDICATION

Statistics



■	DORSAY (LAKESHORE) INC./DORSAY (LAKEFRONT PROMENADE) INC./DORSAY (RANGEVIEW) INC.	0.55 ha
■	ELGROUP HOLDINGS INC./ELIAS BROS. CONSTRUCTION LIMITED (Elias Brothers Construction)	0.45 ha
■	RANGEVIEW 1035 HOLDING INC./RANGEVIEW 1045 HOLDING INC./1207238 ONTARIO INC. (Oasis Banquet Hall)	0.44 ha
■	2120412 ONTARIO INC. (Xtreme Tire)	0.11 ha
	WHITEROCK 880 RANGEVIEW INC. (Dream)	0.0 ha
	447111 ONTARIO LIMITED (Norstar)	0.0 ha
	1127792 ONTARIO LIMITED (Dino Collini)	0.0 ha
■	ILSCO OF CANADA LIMITED (Thomas Quinn)	0.05 ha
	KOTYCK INVESTMENTS LTD.	0.0 ha
■	NON PARTICIPATING LANDOWNERS	1.02 ha

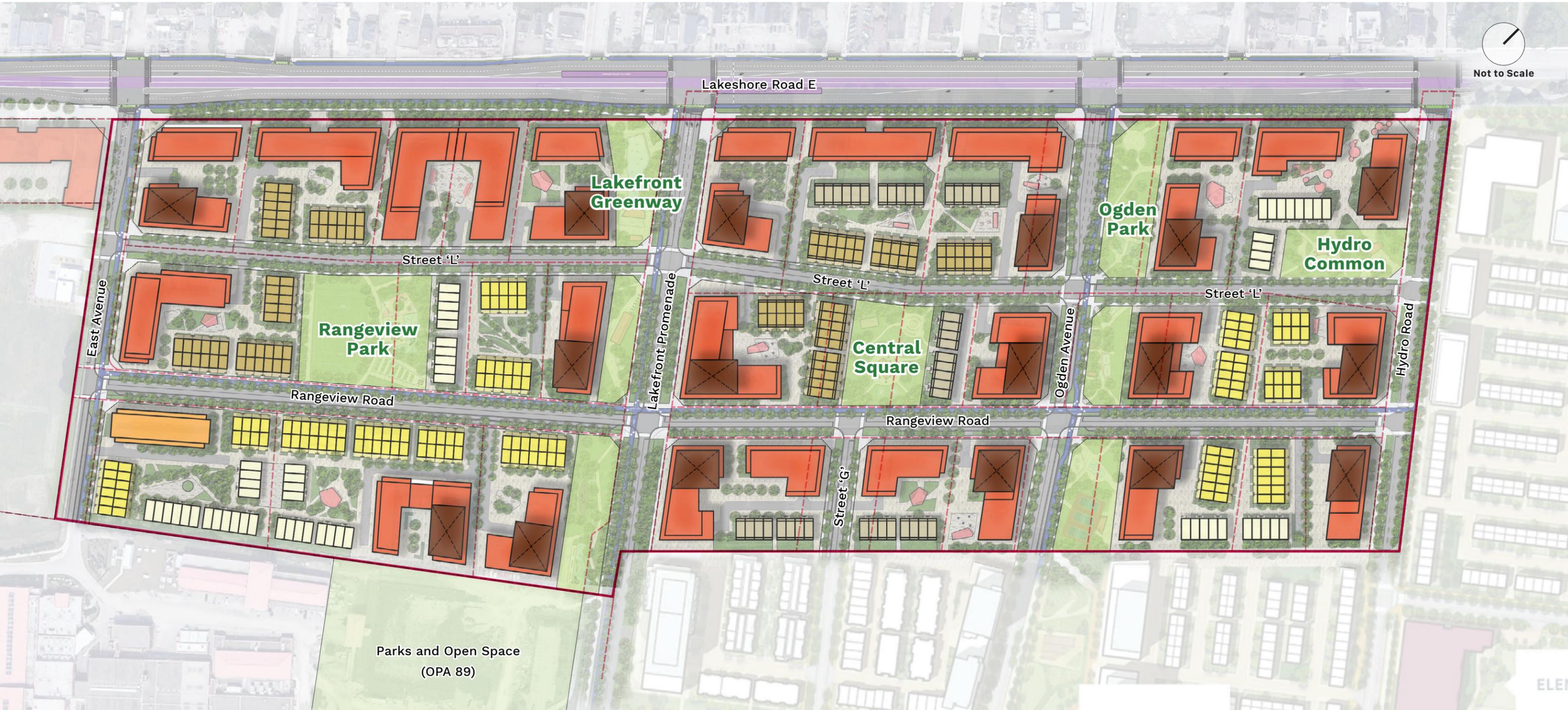
±2.62 ha TOTAL PARKLAND DEDICATION AREA

Legend Rangeview Estates Precinct Area Existing Parcel Lines Development Parcels Parkland Blocks

MASTER PLAN VERSION 5.1 (FINAL)

Rangeview Development Master Plan

Concept Plan



Legend Rangeview Estates Precinct Area Existing Parcel Lines Development Parcels Low-rise (Up to 4-Storeys) Mid-rise (5 to 8-Storeys) Tall Building (Up to 15-Storeys)

MASTER PLAN VERSION 5.1 (FINAL)

Rangeview Development Master Plan

Development Parcels

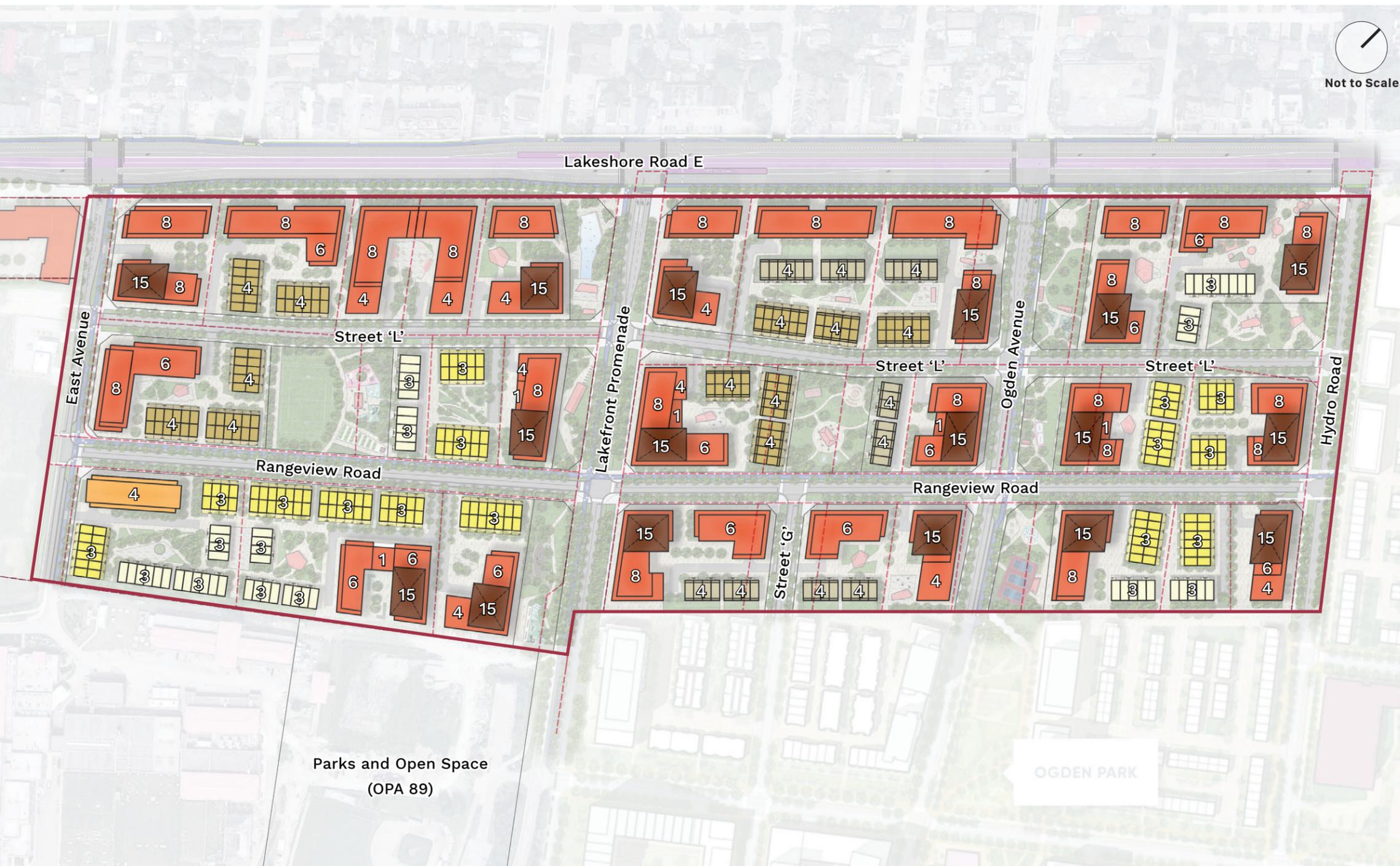


Legend Rangeview Estates Precinct Area Existing Parcel Lines Development Parcels

BUILT FORM

Rangeview Development Master Plan

Height (Storeys) + Individual Typology Statistics



Total Residential Units
± 5,300 units

Low-rise Buildings (Up to 4-St) **11.2%**
± 592 units

Traditional Townhouse Blocks (3-ST) ○ ± 60 units

Stacked Townhouse Blocks (4-ST) ● ± 84 units

Back-to-Back Townhouse Blocks (3-ST) ● ± 150 units

Stacked Back-to-Back Townhouse Blocks (4-ST) ● ± 244 units

Apartment (4-ST) ● ± 54 units

Mid-rise Buildings (5- to 8-ST) **68.9%**
± 3,654 units

Tall Buildings (9- to 15-ST) **19.9%**
± 1,054 units

Assumptions

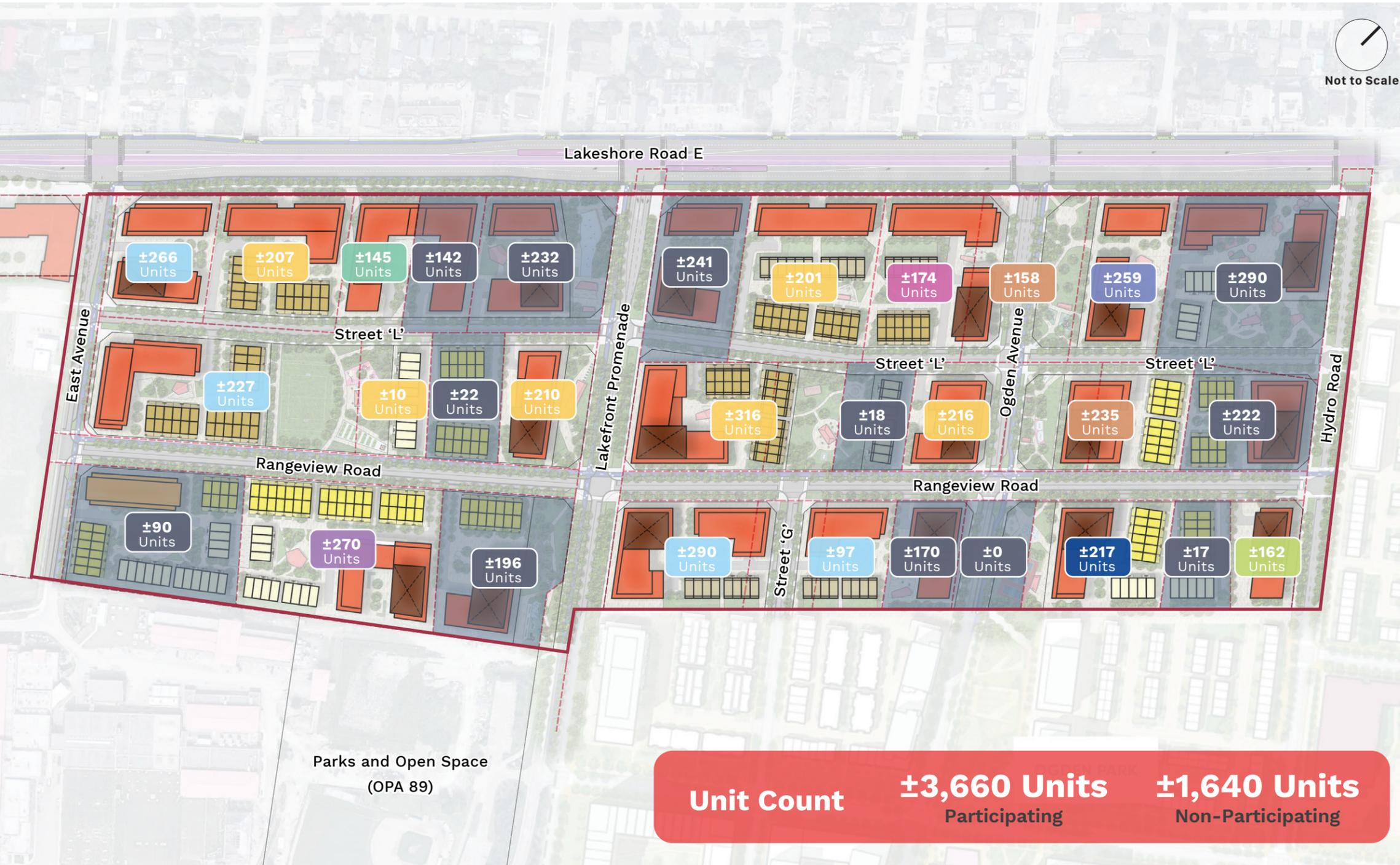
- 1 Residential Gross Floor Area (GFA) for Apartments, Mid-rise and Tall Building based on 95% of the Gross Construction Area (GCA)
- 2 50% of the Ground Floor for Each Mid-rise / Tall Building is Allocated for Non-Residential Uses (i.e. lobby, servicing, etc.)
- 3 Approximate Unit Count for Mid-rise and Tall Building based on an 80 sq.m. unit size
- 4 Individual Stacked Townhouse module = 2 units

Legend □ Rangeview Estates Precinct Area ■ Low-rise (Up to 4-Storeys) ■ Mid-rise (5 to 8-Storeys) ■ Tall Building (Up to 15-Storeys) ■ Building Height (Storeys)

MASTER PLAN VERSION 5.1 (FINAL)

Rangeview Development Master Plan

Participating Landowners vs. Non-Participating Landowners Unit Counts



■	DORSAY (LAKESHORE) INC./DORSAY (LAKEFRONT PROMENADE) INC./DORSAY (RANGEVIEW) INC.	± 1,160 Units
■	ELGROUP HOLDINGS INC./ELIAS BROS. CONSTRUCTION LIMITED (Elias Brothers Construction)	± 880 Units
■	RANGEVIEW 1035 HOLDING INC./RANGEVIEW 1045 HOLDING INC./1207238 ONTARIO INC. (Oasis Banquet Hall)	± 393 Units
■	2120412 ONTARIO INC. (Xtreme Tire)	± 217 Units
■	WHITEROCK 880 RANGEVIEW INC. (Dream)	± 270 Units
■	447111 ONTARIO LIMITED (Norstar)	± 174 Units
■	1127792 ONTARIO LIMITED (Dino Collini)	± 145 Units
■	ILSCO OF CANADA LIMITED (Thomas Quinn)	± 259 Units
■	KOTYCK INVESTMENTS LTD.	± 162 Units
■	NON-PARTICIPATING LANDOWNERS	± 1,640 Units

Legend Rangeview Estates Precinct Area Non-participating Landowners Low-rise (Up to 4-Storeys) Mid-rise (5 to 8-Storeys) Tall Building (Up to 15-Storeys)

BUILT FORM + PARKLAND COMPARISON

Rangeview Development Master Plan

Master Plan V4.1

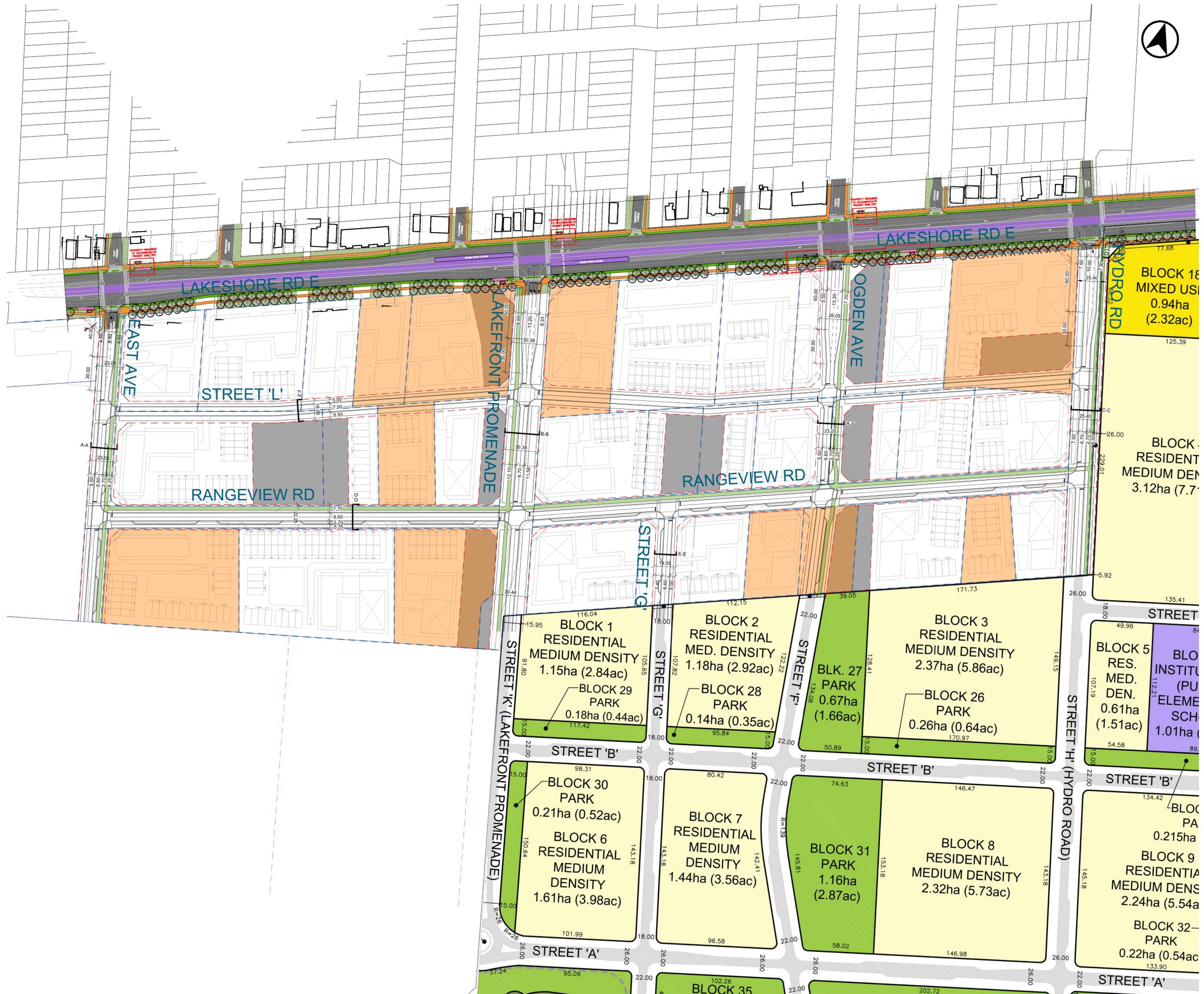
Master Plan Draft V5.1

Individual Statistics	Unit Count	Parkland Dedication	Unit Count	Parkland Dedication Provided ¹	Required Parkland Dedication ²
DORSAY (LAKESHORE) INC./DORSAY (LAKEFRONT PROMENADE) INC./DORSAY (RANGEVIEW) INC.	1,144	0.41 ha	1,160	0.55 ha	0.63 ha
ELGROUP HOLDINGS INC./ELIAS BROS. CONSTRUCTION LIMITED (Elias Brothers Construction)	866	0.33 ha	880	0.45 ha	0.48 ha
RANGEVIEW 1035 HOLDING INC./RANGEVIEW 1045 HOLDING INC./1207238 ONTARIO INC. (Oasis Banquet Hall)	372	0.53 ha	393	0.44 ha	0.21 ha
2120412 ONTARIO INC. (Xtreme Tire)	206	0.11 ha	217	0.11 ha	0.12 ha
WHITEROCK 880 RANGEVIEW INC. (Dream)	258	0.12 ha	270	0.00 ha	0.15 ha
447111 ONTARIO LIMITED (Norstar)	167	0.00 ha	174	0.00 ha	0.09 ha
1127792 ONTARIO LIMITED (Dino Collini)	137	0.04 ha	145	0.00 ha	0.08 ha
ILSCO OF CANADA LIMITED (Thomas Quinn)	245	0.00 ha	259	0.05 ha	0.14 ha
KOTYCK INVESTMENTS LTD.	156	0.00 ha	162	0.00 ha	0.09 ha
NON-PARTICIPATING LANDOWNERS	1,546	0.53 ha	1,640	0.89 ha	0.89 ha
TOTALS	5,330	2.07 ha	5,300	± 2.62 ha	± 2.88 ha

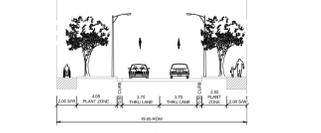
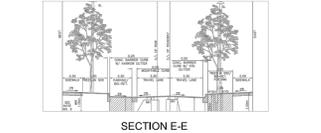
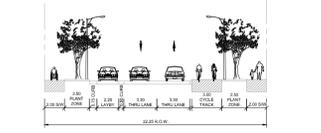
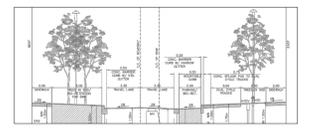
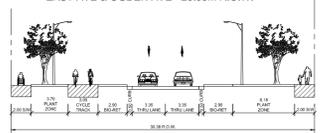
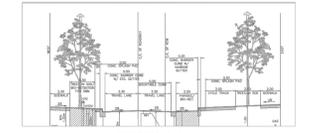
Notes **1** Based on reduced OPA 89 parkland interpretation due to revised park blocks layout and road configuration.

2 Based on Master Plan Draft V5.1 unit count and interpreted OPA 89 ratio (5.41 square metres per dwelling unit).

Appendix C: Rangeview Estates Functional Road Plan



- LEGEND**
- EXISTING PROPERTY LINE
 - PROPOSED RIGHT OF WAY
 - NON-PARTICIPATING LANDOWNERS
 - PARKS



BA Group
 BA Consulting Group Ltd.
 300 - 45 St. Clair Ave. W.
 Toronto ON M5V 1K5
 Tel: 416 961 7110
 www.bagroup.com

DORSAY PROPERTIES

ULTIMATE ROAD PLAN

Date: NOVEMBER 2022
 Project No.: 8061-01
 Scale: 1:1,500

Date Plotted: November 4, 2022 File Name: J:\9061-01\BA\Functional Design\11_October_14_2022\BA-DORSAY-FD-R01-8061-01_L1\RP02.dwg

**Appendix D:
Excerpts from April 2021 TMIG Report for Lakeview Village**

LAKEVIEW VILLAGE

TRAFFIC CONSIDERATIONS REPORT ADDENDUM

FINAL • APRIL 2021

REPORT PREPARED FOR



LAKEVIEW
COMMUNITY
PARTNERS LIMITED
4595 PALLADIUM WAY
BURLINGTON, ON L7M 0W9

REPORT PREPARED BY



THE MUNICIPAL
INFRASTRUCTURE
GROUP LTD., A T.Y.
LIN INTERNATIONAL
COMPANY
8800 DUFFERIN STREET, SUITE
200, VAUGHAN, ON L4K 0C5
(905) 738-5700

TMIG PROJECT NUMBER 17201

Trip Generation Summary – Lakeview Village

Land Use	Parameters	Peak Hour of Trip Generator					
		Weekday AM			Weekday PM		
		In	Out	Total	In	Out	Total
Multifamily Housing (Low-Rise) (LUC 220) 355 units	Fitted Curve Equation	$\ln(T) = 0.95 \ln(X) - 0.51$			$\ln(T) = 0.89 \ln(X) - 0.02$		
	Distribution	23%	77%	-	63%	37%	-
	Gross Vehicle Site Trips	38	129	167	120	71	191
	Vehicle to Person Trip Conversion Rate	-	-	1.13	-	-	1.21
	Gross Person Trips	43	146	189	146	85	231
	Internal Reduction	1	2	3	13	9	22
	Total External Person Trips	42	144	186	133	76	209
	Mode Split Reduction	17	58	75	51	30	81
	Total Auto Driver Trips	25	86	111	82	46	128
Multifamily Housing (Mid-Rise) (LUC 221) 5287 units	Average Rate	0.2			0.18		
	Distribution	12%	88%	-	72%	28%	-
	Gross Vehicle Site Trips	127	930	1057	685	267	952
	Vehicle to Person Trip Conversion Rate	-	-	1.9	-	-	2
	Gross Person Trips	241	1768	2009	1370	533	1903
	Internal Reduction	5	31	36	119	59	178
	Total External Person Trips	236	1737	1973	1251	474	1725
	Mode Split Reduction	95	702	797	487	184	671
	Total Auto Driver Trips	141	1035	1176	764	290	1054
Multifamily Housing (High-Rise) (LUC 222) 2389 units	Average Rate or Fitted Curve Equation	$\ln(T) = 0.84 \ln(X) - 0.65$			2.17		
	Distribution	12%	88%		70%	30%	
	Gross Vehicle Site Trips	43	316	359	318	136	454
	Vehicle to Person Trip Conversion Rate	-	-	2.81	-	-	2.17
	Gross Person Trips	121	889	1010	690	295	985
	Internal Reduction	2	16	18	60	32	92
	Total External Person Trips	119	873	992	630	263	893
	Mode Split Reduction	48	353	401	245	102	347
	Total Auto Driver Trips	71	520	591	385	161	546
Hotel (LUC 310) 191 rooms	Fitted Curve Equation	$T = 0.50(X) - 5.34$			$T = 0.75(X) - 26.02$		
	Distribution	59%	41%		51%	49%	
	Gross Vehicle Site Trips	53	37	90	60	57	117
	Vehicle to Person Trip Conversion Rate	-	-	1.00	-	-	1.00

Land Use	Parameters	Peak Hour of Trip Generator					
		Weekday AM			Weekday PM		
		In	Out	Total	In	Out	Total
	Gross Person Trips	53	37	90	60	57	117
	Internal Reduction	-	-	-	-	-	-
	Total External Person Trips	53	37	90	60	57	117
	Mode Split Reduction	21	15	36	23	22	45
	Total Auto Driver Trips	32	22	54	37	35	72
Recreational Community Center (LUC 495)	Fitted Curve Equation	$\ln(T) = 0.54 \ln(X) + 2.73$			$\ln(T) = 0.76 \ln(X) + 2.00$		
	Distribution	66%	34%		47%	53%	
	Gross Vehicle Site Trips	269	139	408	352	397	749
	Vehicle to Person Trip Conversion Rate	-	-	1.86	-	-	1.82
	Gross Person Trips	501	258	759	641	722	1363
	Internal Reduction	-	-	-	-	-	-
	Total External Person Trips	501	258	759	641	722	1363
	Mode Split Reduction	202	104	306	249	281	530
	Total Auto Driver Trips	299	154	453	392	441	833
General Office Building (LUC 710)	Fitted Curve Equation	$T = 0.72(X) + 21.64$			$T = 0.83(X) + 7.99$		
	Distribution	86%	14%		17%	83%	
	Gross Vehicle Site Trips	480	78	558	107	520	627
	Vehicle to Person Trip Conversion Rate	-	-	1.47	-	-	1.46
	Gross Person Trips	706	115	821	156	759	915
	Internal Reduction	49	32	81	51	65	116
	Total External Person Trips	657	83	740	105	694	799
	Mode Split Reduction	266	34	300	41	270	311
	Total Auto Driver Trips	391	49	440	64	424	488
Research and Development Center (LUC 760)	Average Rate	0.42			0.49		
	Distribution	75%	25%		15%	85%	
	Gross Vehicle Site Trips	235	78	313	55	310	365
	Vehicle to Person Trip Conversion Rate	-	-	1.36	-	-	1.45
	Gross Person Trips	320	106	426	80	450	530
	Internal Reduction	-	-	-	-	-	-
	Total External Person Trips	320	106	426	80	450	530
	Mode Split Reduction	129	43	172	31	175	206
	Total Auto Driver Trips	191	63	254	49	275	324
Shopping Center	Fitted Curve Equation	$T = 0.50(X) + 151.78$			$\ln(T) = 0.74 \ln(X) + 2.89$		
	Distribution	62%	38%		48%	52%	

Land Use	Parameters	Peak Hour of Trip Generator					
		Weekday AM			Weekday PM		
		In	Out	Total	In	Out	Total
(LUC 820)	Gross Vehicle Site Trips	157	96	253	440	477	917
	Vehicle to Person Trip Conversion Rate	-	-	1.31	-	-	1.43
	Gross Person Trips	206	126	332	629	682	1311
	Internal Reduction	60	36	96	113	191	304
	Total External Person Trips	146	90	236	516	491	1007
	Mode Split Reduction	59	36	95	201	191	392
	Total Auto Driver Trips	87	54	141	315	300	615
Elementary School (LUC 520) 850 student capacity	Average Rate	0.67			0.17		
	Distribution	54%	46%	-	48%	52%	-
	Gross Vehicle Site Trips	308	262	570	69	76	145
	Internal Reduction (50%)	154	131	285	34	38	72
	Total Auto Driver Trips	154	131	285	35	38	73
Day Care Center (LUC 565) 39 Student Capacity	Fitted Curve Equation	$T = 0.66(X) + 8.42$			$\ln(T) = 0.87 \ln(X) + 0.29$		
	Distribution	53%	47%	-	47%	53%	-
	Gross Vehicle Site Trips	18	16	34	15	17	32
	Internal Reduction	9	8	17	7	9	16
	Total Auto Driver Trips	9	8	17	8	8	16

Trip Generation Summary – Rangeview Estates

Land Use	Parameters	Peak Hour of Trip Generator					
		Weekday AM			Weekday PM		
		In	Out	Total	In	Out	Total
Multifamily Housing (Mid-Rise) (LUC 221) 2981 units	Average Rate	0.2			0.18		
	Distribution	12%	88%	-	72%	28%	-
	Gross Vehicle Site Trips	72	524	596	386	151	537
	Vehicle to Person Trip Conversion Rate	-	-	1.9	-	-	2
	Gross Person Trips	136	997	1133	773	300	1073
	Internal Reduction	3	12	15	61	28	89
	Total External Person Trips	133	985	1118	712	272	984
	Mode Split Reduction	54	398	452	277	106	383
	Total Auto Driver Trips	79	587	666	435	166	601
General Office Building (LUC 710)	Fitted Curve Equation	$T = 0.72(X) + 21.64$			$T = 0.83(X) + 7.99$		
	Distribution	86%	14%	-	17%	83%	-
	Gross Vehicle Site Trips	48	8	56	8	39	47
	Vehicle to Person Trip Conversion Rate	-	-	1.47	-	-	1.46
	Gross Person Trips	71	11	82	12	57	69
	Internal Reduction	5	3	8	11	12	23
	Total External Person Trips	66	8	74	1	45	46
	Mode Split Reduction	27	3	30	0	18	18
	Total Auto Driver Trips	39	5	44	1	27	28
Shopping Center (LUC 820)	Fitted Curve Equation	$T = 0.50(X) + 151.78$			$\ln(T) = 0.74\ln(X) + 2.89$		
	Distribution	62%	38%	-	48%	52%	-
	Gross Vehicle Site Trips	109	66	175	150	162	312
	Vehicle to Person Trip Conversion Rate	-	-	1.31	-	-	1.43
	Gross Person Trips	143	87	230	214	231	445
	Internal Reduction	13	6	19	32	64	96
	Total External Person Trips	130	81	211	182	167	349
	Mode Split Reduction	53	33	86	71	65	136
	Total Auto Driver Trips	77	48	125	111	102	213

Trip Generation Summary – Serson North

Land Use	Parameters	Peak Hour of Trip Generator					
		Weekday AM			Weekday PM		
		In	Out	Total	In	Out	Total
General Office Building (LUC 710)	Fitted Curve Equation	T = 0.72(X) + 21.64			T = 0.83(X) + 7.99		
	Distribution	86%	14%	-	17%	83%	-
	Gross Vehicle Site Trips	158	25	183	33	161	194
	Vehicle to Person Trip Conversion Rate	-	-	1.47	-	-	1.46
	Gross Person Trips	231	38	269	48	236	284
	Internal Reduction	-	-	-	-	-	-
	Total External Person Trips	231	38	269	48	236	284
	Mode Split Reduction	115	19	134	24	118	142
	Total Auto Driver Trips	116	19	135	24	118	142
Research and Development Center (LUC 760)	Average Rate	0.42			0.49		
	Distribution	75%	25%	-	15%	85%	-
	Gross Vehicle Site Trips	71	23	94	16	94	110
	Vehicle to Person Trip Conversion Rate	-	-	1.36	-	-	1.45
	Gross Person Trips	96	32	128	24	135	159
	Internal Reduction	-	-	-	-	-	-
	Total External Person Trips	96	32	128	24	135	159
	Mode Split Reduction	48	16	64	12	67	79
	Total Auto Driver Trips	48	16	64	12	68	80

Trip Generation Summary – 2041 50% Mode Split Sensitivity – Lakeview Village

Land Use	Parameters	Peak Hour of Trip Generator					
		Weekday AM			Weekday PM		
		In	Out	Total	In	Out	Total
Multifamily Housing (Low-Rise) (LUC 220) 355 units	Fitted Curve Equation	Ln(T) = 0.95 Ln(X) - 0.51			Ln(T) = 0.89 Ln(X) - 0.02		
	Distribution	23%	77%	-	63%	37%	-
	Gross Vehicle Site Trips	38	129	167	120	71	191
	Vehicle to Person Trip Conversion Rate	-	-	1.13	-	-	1.21
	Gross Person Trips	43	146	189	146	85	231
	Internal Reduction	1	2	3	13	9	22
	Total External Person Trips	42	144	186	133	76	209
	Mode Split Reduction	20	73	93	66	39	105
	Total Auto Driver Trips	22	71	93	67	37	104
Multifamily Housing (Mid-Rise) (LUC 221) 5287 units	Average Rate	0.2			0.18		
	Distribution	12%	88%	-	72%	28%	-
	Gross Vehicle Site Trips	127	930	1057	685	267	952
	Vehicle to Person Trip Conversion Rate	-	-	1.9	-	-	2
	Gross Person Trips	241	1768	2009	1370	533	1903
	Internal Reduction	5	31	36	119	59	178
	Total External Person Trips	236	1737	1973	1251	474	1725
	Mode Split Reduction	118	868	986	626	236	862
	Total Auto Driver Trips	118	869	987	625	238	863
Multifamily Housing (High-Rise) (LUC 222) 2389 units	Average Rate or Fitted Curve Equation	Ln(T) = 0.84 Ln(X) - 0.65			2.17		
	Distribution	12%	88%		70%	30%	
	Gross Vehicle Site Trips	43	316	359	318	136	454
	Vehicle to Person Trip Conversion Rate	-	-	2.81	-	-	2.17
	Gross Person Trips	121	889	1010	690	295	985
	Internal Reduction	2	16	18	60	32	92
	Total External Person Trips	119	873	992	630	263	893
	Mode Split Reduction	60	436	496	315	131	446
	Total Auto Driver Trips	59	437	496	315	132	447
Hotel (LUC 310) 191 rooms	Fitted Curve Equation	T = 0.50(X) - 5.34			T = 0.75(X) - 26.02		
	Distribution	59%	41%		51%	49%	
	Gross Vehicle Site Trips	53	37	90	60	57	117
	Vehicle to Person Trip Conversion Rate	-	-	1.00	-	-	1.00

Land Use	Parameters	Peak Hour of Trip Generator					
		Weekday AM			Weekday PM		
		In	Out	Total	In	Out	Total
	Gross Person Trips	53	37	90	60	57	117
	Internal Reduction	-	-	-	-	-	-
	Total External Person Trips	53	37	90	60	57	117
	Mode Split Reduction	26	18	44	30	28	58
	Total Auto Driver Trips	27	19	46	30	29	59
Recreational Community Center (LUC 495)	Fitted Curve Equation	$\ln(T) = 0.54 \ln(X) + 2.73$			$\ln(T) = 0.76 \ln(X) + 2.00$		
	Distribution	66%	34%		47%	53%	
	Gross Vehicle Site Trips	269	139	408	352	397	749
	Vehicle to Person Trip Conversion Rate	-	-	1.86	-	-	1.82
	Gross Person Trips	501	258	759	641	722	1363
	Internal Reduction	-	-	-	-	-	-
	Total External Person Trips	501	258	759	641	722	1363
	Mode Split Reduction	250	129	379	320	361	681
	Total Auto Driver Trips	251	129	380	321	361	682
General Office Building (LUC 710)	Fitted Curve Equation	$T = 0.72(X) + 21.64$			$T = 0.83(X) + 7.99$		
	Distribution	86%	14%		17%	83%	
	Gross Vehicle Site Trips	480	78	558	107	520	627
	Vehicle to Person Trip Conversion Rate	-	-	1.47	-	-	1.46
	Gross Person Trips	706	115	821	156	759	915
	Internal Reduction	49	32	81	51	65	116
	Total External Person Trips	657	83	740	105	694	799
	Mode Split Reduction	266	34	300	41	270	311
	Total Auto Driver Trips	391	49	440	64	424	488
Research and Development Center (LUC 760)	Average Rate	0.42			0.49		
	Distribution	75%	25%		15%	85%	
	Gross Vehicle Site Trips	235	78	313	55	310	365
	Vehicle to Person Trip Conversion Rate	-	-	1.36	-	-	1.45
	Gross Person Trips	320	106	426	80	450	530
	Internal Reduction	-	-	-	-	-	-
	Total External Person Trips	657	83	740	105	694	799
	Mode Split Reduction	328	41	369	52	347	399
	Total Auto Driver Trips	329	42	371	53	347	400
Shopping Center	Fitted Curve Equation	$T = 0.50(X) + 151.78$			$\ln(T) = 0.74 \ln(X) + 2.89$		
	Distribution	62%	38%		48%	52%	

Land Use	Parameters	Peak Hour of Trip Generator					
		Weekday AM			Weekday PM		
		In	Out	Total	In	Out	Total
(LUC 820)	Gross Vehicle Site Trips	157	96	253	440	477	917
	Vehicle to Person Trip Conversion Rate	-	-	1.31	-	-	1.43
	Gross Person Trips	206	126	332	629	682	1311
	Internal Reduction	60	36	96	113	191	304
	Total External Person Trips	146	90	236	516	491	1007
	Mode Split Reduction	73	45	118	258	245	503
	Total Auto Driver Trips	73	45	118	258	246	504
Elementary School	Average Rate	0.67			0.17		
	Distribution	54%	46%	-	48%	52%	-
(LUC 520) 850 student capacity	Gross Vehicle Site Trips	308	262	570	69	76	145
	Internal Reduction (50%)	154	131	285	34	38	72
	Total Auto Driver Trips	154	131	285	35	38	73
Day Care Center (LUC 565) 39 Student Capacity	Fitted Curve Equation	$T = 0.66(X) + 8.42$			$\ln(T) = 0.87 \ln(X) + 0.29$		
	Distribution	53%	47%	-	47%	53%	-
	Gross Vehicle Site Trips	18	16	34	15	17	32
	Internal Reduction	9	8	17	7	9	16
	Total Auto Driver Trips	9	8	17	8	8	16

Trip Generation Summary – 2041 50% Mode Split Sensitivity – Rangeview Estates

Land Use	Parameters	Peak Hour of Trip Generator					
		Weekday AM			Weekday PM		
		In	Out	Total	In	Out	Total
Multifamily Housing (Mid-Rise) (LUC 221) 2981 units	Average Rate	0.2			0.18		
	Distribution	12%	88%	-	72%	28%	-
	Gross Vehicle Site Trips	72	524	596	386	151	537
	Vehicle to Person Trip Conversion Rate	-	-	1.9	-	-	2
	Gross Person Trips	136	997	1133	773	300	1073
	Internal Reduction	3	12	15	61	28	89
	Total External Person Trips	133	985	1118	712	272	984
	Mode Split Reduction	66	492	558	356	136	492
	Total Auto Driver Trips	67	493	560	356	136	492
General Office Building (LUC 710)	Fitted Curve Equation	$T = 0.72(X) + 21.64$			$T = 0.83(X) + 7.99$		
	Distribution	86%	14%	-	17%	83%	-
	Gross Vehicle Site Trips	48	8	56	8	39	47
	Vehicle to Person Trip Conversion Rate	-	-	1.47	-	-	1.46
	Gross Person Trips	71	11	82	12	57	69
	Internal Reduction	5	3	8	11	12	23
	Total External Person Trips	66	8	74	1	45	46
	Mode Split Reduction	33	4	37	0	22	22
	Total Auto Driver Trips	33	4	37	1	23	24
Shopping Center (LUC 820)	Fitted Curve Equation	$T = 0.50(X) + 151.78$			$\ln(T) = 0.74\ln(X) + 2.89$		
	Distribution	62%	38%	-	48%	52%	-
	Gross Vehicle Site Trips	109	66	175	150	162	312
	Vehicle to Person Trip Conversion Rate	-	-	1.31	-	-	1.43
	Gross Person Trips	143	87	230	214	231	445
	Internal Reduction	13	6	19	32	64	96
	Total External Person Trips	130	81	211	182	167	349
	Mode Split Reduction	65	40	105	91	83	174
	Total Auto Driver Trips	65	41	106	91	84	175

Trip Generation Summary – 2041 50% Mode Split Sensitivity – Serson North

Land Use	Parameters	Peak Hour of Trip Generator					
		Weekday AM			Weekday PM		
		In	Out	Total	In	Out	Total
General Office Building (LUC 710)	Fitted Curve Equation	T = 0.72(X) + 21.64			T = 0.83(X) + 7.99		
	Distribution	86%	14%	-	17%	83%	-
	Gross Vehicle Site Trips	158	25	183	33	161	194
	Vehicle to Person Trip Conversion Rate	-	-	1.47	-	-	1.46
	Gross Person Trips	231	38	269	48	236	284
	Internal Reduction	-	-	-	-	-	-
	Total External Person Trips	231	38	269	48	236	284
	Mode Split Reduction	115	19	134	24	118	142
	Total Auto Driver Trips	116	19	135	24	118	142
Research and Development Center (LUC 760)	Average Rate	0.42			0.49		
	Distribution	75%	25%	-	15%	85%	-
	Gross Vehicle Site Trips	71	23	94	16	94	110
	Vehicle to Person Trip Conversion Rate	-	-	1.36	-	-	1.45
	Gross Person Trips	96	32	128	24	135	159
	Internal Reduction	-	-	-	-	-	-
	Total External Person Trips	96	32	128	24	135	159
	Mode Split Reduction	48	16	64	12	67	79
	Total Auto Driver Trips	48	16	64	12	68	80