3 Hamilton Avenue North, 233, 229, 233 Armstrong Street

TIA Strategy Report

Draft

January 2026

TIA Plan Reports

On 14 June 2017, the Council of the City of Ottawa adopted new Transportation Impact Assessment (TIA) Guidelines. In adopting the guidelines, Council established a requirement for those preparing and delivering transportation impact assessments and reports to sign a letter of certification.

Individuals submitting TIA reports will be responsible for all aspects of development-related transportation assessment and reporting, and undertaking such work, in accordance and compliance with the City of Ottawa's Official Plan, the Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines.

By submitting the attached TIA report (and any associated documents) and signing this document, the individual acknowledges that s/he meets the four criteria listed below.

CERTIFICATION

1. I have reviewed and have a sound understanding of the objectives, needs and requirements of the City of Ottawa's Official Plan, Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines;
2. I have a sound knowledge of industry standard practice with respect to the preparation of transportation impact assessment reports, including multi modal level of service review;
3. I have substantial experience (more than 5 years) in undertaking and delivering transportation impact studies (analysis, reporting and geometric design) with strong background knowledge in transportation planning, engineering or traffic operations; and
4. I am either a licensed[1] or registered[2] professional in good standing, whose field of expertise [check √ appropriate field(s)] is either transportation engineering ☑ or transportation planning ☐.

[1,2] **License of registration body that oversees the profession is required to have a code of conduct and ethics guidelines that will ensure appropriate conduct and representation for transportation planning and/or transportation engineering works.**

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Signature of individual certifier that s/he meets the above criteria

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TIA Strategy Report

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January 9, 2026

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TIA STRATEGY REPORT

Parsons has been retained by Taggart Realty Management to prepare a TIA in support of a Zoning By-Law Application (ZBLA) and Official Plan Amendment (OPA) for a proposed mixed-use residential development with ground floor retail located at the municipal addresses of 223, 229, 233 Armstrong St and 3 Hamilton Ave, also referred to as the consolidated address of 340 Parkdale Ave herein. This document follows the TIA process as outlined in the City of Ottawa Transportation Impact Assessment (TIA) Guidelines (2017). The following report represents Step 3 – Strategy Report.

1.0 SCREENING FORM

The Screening Form confirmed the need for a TIA Report based on all the triggers; the Trip Generation Trigger was met as the development is anticipated to generate more than 60 person trips during peak hours; the Location Trigger was met as the development is located within a design priority area and transit oriented development; and, the Safety Trigger was met as the development is located near the influence of a traffic signal. The Screening Form and Site Plan have been provided in **Appendix A**.

2.0 SCOPING REPORT

2.1. Existing and Planned Conditions

2.1.1. Proposed Development

The proposed development is located on the city block bound by Armstrong St to the south, Hamilton Ave to the west, Spencer St to the north and Parkdale Ave to the east. The site is currently occupied by low-rise commercial uses which will be replaced by an L-shaped mixed-use building and a standalone reconstructed low-rise heritage building. The heritage building known as “The Carleton Tavern” is a current site use which will be partially relocated to maintain the heritage character of the site. The site is currently zoned as mixed-use centre zone MC16[2063] F(6.0) S333-h and light industrial zone IL8[104] F(2.0) H13.5). The site context is illustrated in **Figure 1**.

The proposed development consists of a 6 to 8-storey general podium with a 38-storey tower facing Hamilton Ave N. A single vehicular access to underground parking will bisect the 6-storey podium fronting Spencer St. An internal lobby connects pedestrians through to a courtyard, allowing movement between Armstrong, Parkdale and Spencer. The southeast quadrant of the site will be reconstructed as a heritage site, retaining the existing Carleton Tavern and façades on Armstrong St and Parkdale Ave, resulting in a new free-standing structure with a large courtyard separating it to the new L-shaped mixed-use building. The ground floor plan has been illustrated in **Figure 2**, with further details provided in **Appendix A.**

The development is proposed to consist of approximately 465 residential units and 5,643 ft^2 of ground floor retail that has been orientated to Armstrong St and Parkdale Ave, with access provided from the street frontage or the interior courtyard. The latest Site Plan proposes 322 vehicle parking spaces, and 465 bike parking spaces, to be confirmed once a Site Plan Application is prepared. The pedestrian courtyard will provide permeability through the site from Spencer St to Armstrong St and Parkdale Ave.

The site proposes a single vehicular garage ramp off Spencer St, located approximately 30m east of Hamilton Ave N and 35m west of Parkdale Ave. It is understood that garbage pick-up will occur at grade level, with garbage bins rolled out on pick-up days and placed on Spencer St. Move in operations are understood to occur using Spencer St which is a wide low volume local street. New sidewalks are proposed along the entire site perimeter,

including new sidewalks on Hamilton Ave N. The proposed development is anticipated to be constructed in a single phase assumed earliest by 2028 for the purposes of this transportation analysis, which is subject to market demands.

Figure 2-1: Local Context

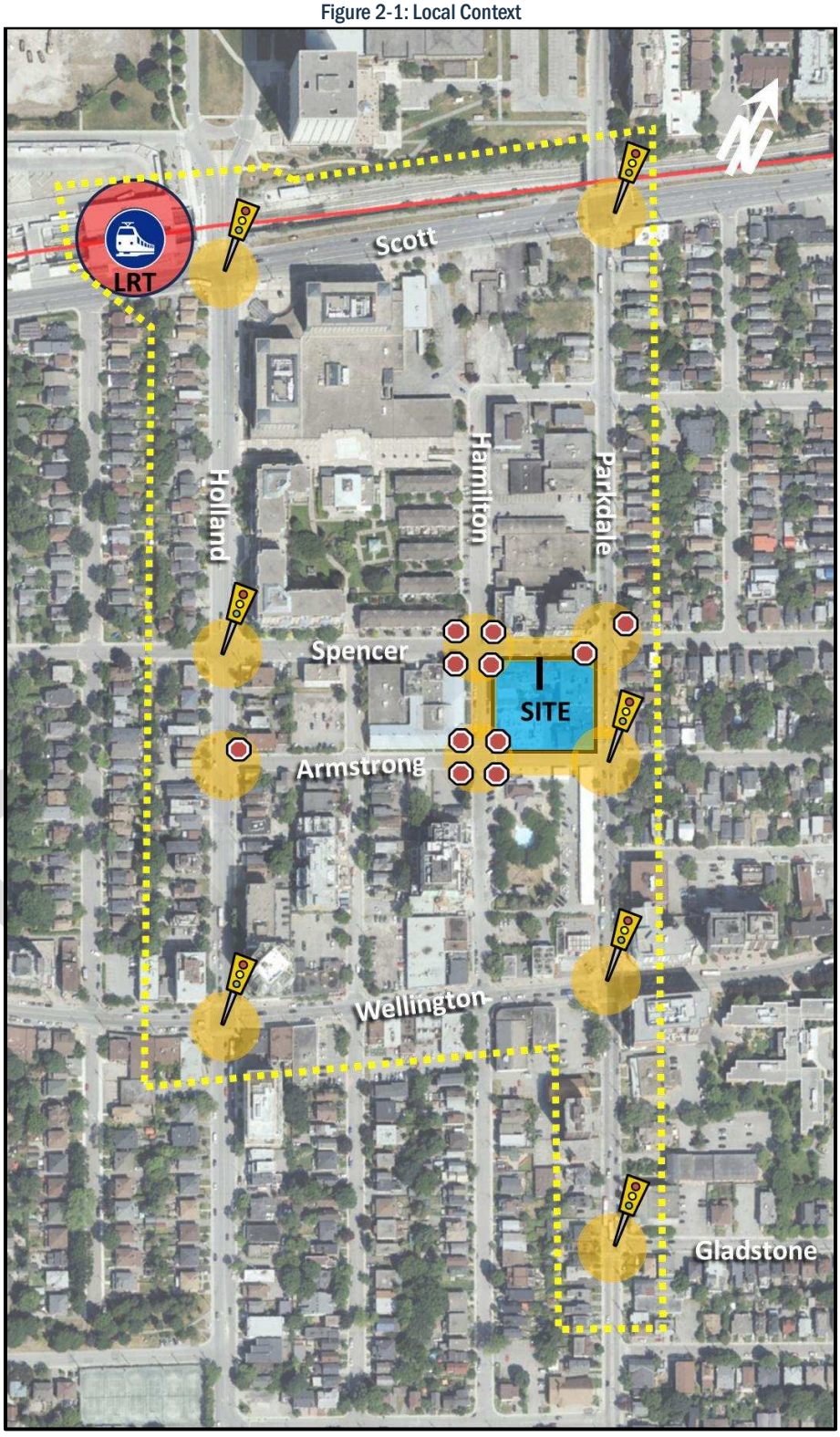
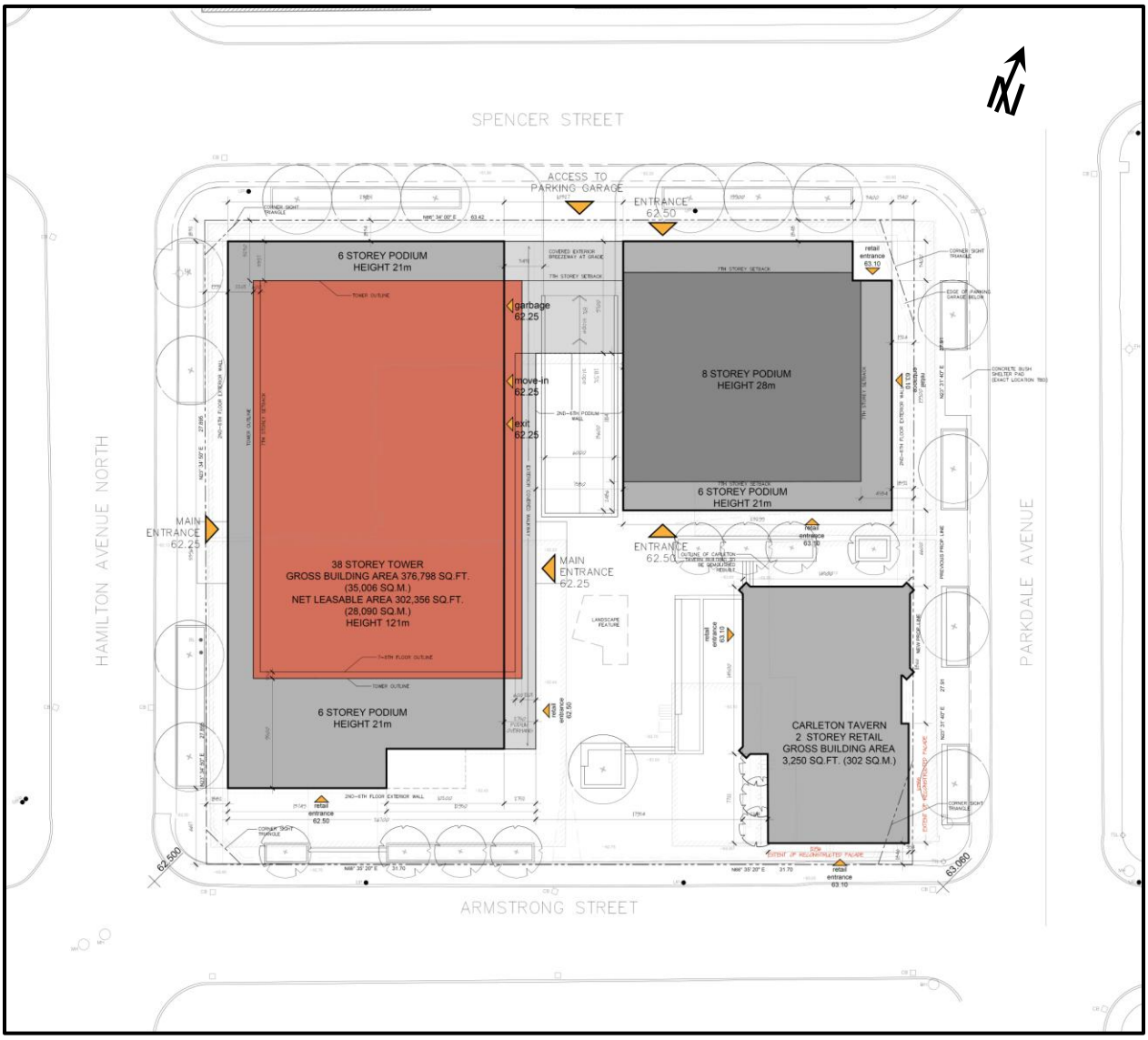


Figure 2-2: Proposed Site Plan – Ground Floor Plan (January 2026)



2.1.2. Existing Conditions

Area Road Network

A description for each road within the study area included in the TIA has been provided below.

Parkdale Ave is a north-south arterial roadway that extends from Kichi Zibi Mikan in the north to Carling Ave in the south. Within the study area, Parkdale Ave has a two-lane undivided urban cross-section. The posted speed limit is 40 km/h. As per the Official Plan, Parkdale Ave has a ROW protection of 26m. Note that as per Phase 2 of the TMP update, a new 22m ROW measured from the existing east ROW limit is proposed (existing ROW measured at approximately 20m based on GeoOttawa).

Scott St is an east-west arterial roadway that extends from Churchill Ave in the west to Bayview Station Rd in the east where it continues as Albert St. Since 2024 and within the study area, Scott St has been reduced from a four-lane to a two-lane undivided urban cross-section road, with a new eastbound cycle-track. Scott St is classified as a truck route. The posted speed limit is 50 km/h. As per the Official Plan, Scott St has a ROW protection of 26m.

Wellington St is an east-west arterial roadway that extends from Island Park Dr in the west (where it continues as Richmond Rd) to Garland St in the east where it continues as Somerset St W. Within the study area, Wellington St has a two-lane undivided urban cross-section and is classified as a truck route. The unposted speed limit is assumed 50 km/h. As per the Official Plan, Wellington St has a ROW protection of 20m.

Gladstone Ave is an east-west major collector roadway that extends from Parkdale Ave to Cartier St in the east. Within the study area, Gladstone Ave has a two-lane undivided urban cross-section. The posted speed limit is 40 km/h. As per the Official Plan, Gladstone Ave has a ROW protection of 18m (as per Phase 2 TMP).

Holland Ave is a north-south major collector roadway that extends from Scott St in the north to Carling Ave in the south where it continues as Fisher Ave. Within the study area, Holland Ave has a four-lane undivided urban cross-section and is classified as a truck route. The unposted speed limit is assumed 50 km/h. As per the Official Plan, Holland Ave has a ROW protection of 26m. Note that as per Phase 2 of the TMP update, a new 24m ROW limit is proposed.

Spencer St-Oxford Street is an east-west local roadway that extends from Rockhurst Rd in the west to Parkdale Ave as Spencer St, before continuing as Oxford St to Hinchey Ave in the east. Within the study area, Spencer St has a two-lane undivided urban cross-section. The posted speed limit is 40 km/h. As per the Official Plan, Spencer St has a ROW protection assumed to be 20m (local street).

Armstrong St is an east-west local roadway that extends from Holland Ave in the west to Bayview Station Rd in the east. Within the study area, Armstrong St has a two-lane undivided urban cross-section. The posted speed limit is 40 km/h. As per the Official Plan, Armstrong St has a ROW protection assumed to be 20m (local street).

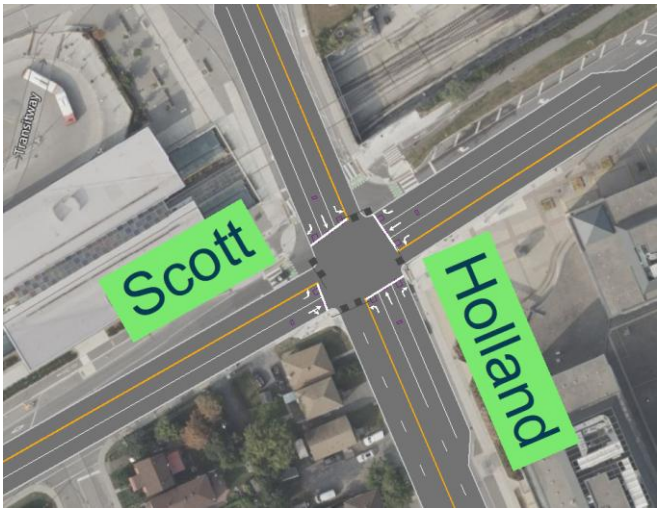
Hamilton Ave N is a north-south local roadway that extends from Bullman St in the north to just north of Highway 417 in the south. Within the study area, Hamilton Ave N has a two-lane undivided urban cross-section. The posted speed limit is 40 km/h. As per the Official Plan, Hamilton Ave has a ROW protection assumed to be 20m (local street).

Existing Study Area Intersections

Note that the figures below illustrates general vehicle travel lanes available during the AM and PM peak hours. It is acknowledged that Scott St may appear to have more lanes as it has dedicated bus only lanes and were therefore not considered within general vehicle capacity for the Synchro model.

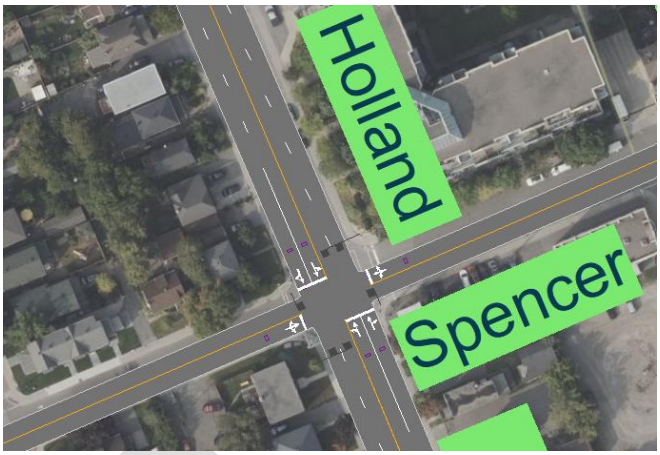
Scott St/Holland Ave

The Scott/Holland intersection is a four-legged signalized intersection. The southbound, northbound and westbound approaches consist of a single left-turn lane, a through lane and a right-turn lane. The eastbound movement consists of a single left-turn lane and a shared though-right lane. There is a no-right-on-red restriction for all movements. On-street parking is allowed at all times on the northbound direction, but prohibited on the southbound direction.



Spencer St/Holland Ave

The Spencer/Holland intersection is a four-legged signalized intersection. The southbound and northbound approaches consist of a shared through-left lane and a shared through-right lane. The westbound and eastbound approaches consist of a shared all movement lane. All movements are allowed at this intersection. It is noteworthy that Holland Ave has no parking restrictions between 3:30-5:30 PM for the southbound movement but allowed on-road parking on both sides of the road on the curbside lane at all other times.



Armstrong St/Holland Ave

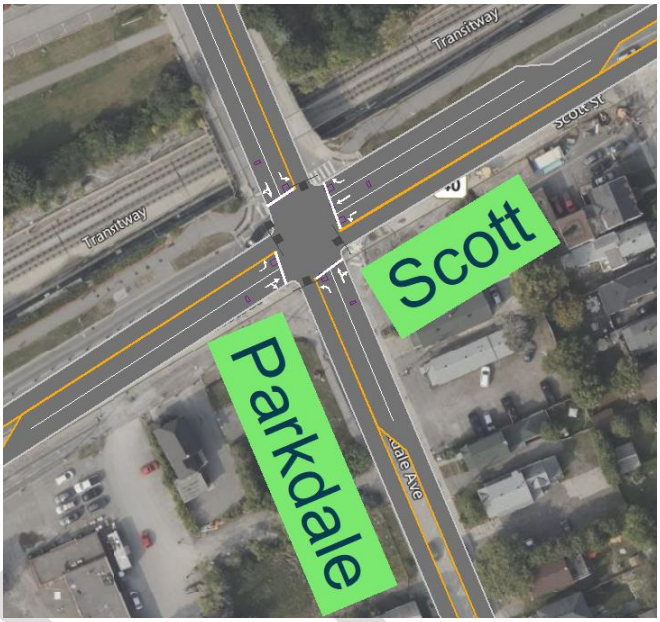
The Armstrong/Holland intersection is a three-legged unsignalized intersection with stop control on Armstrong St. The southbound approach consists of a shared through-left lane and a single through lane. The northbound approach consists of a through lane and a shared through-right lane. The westbound approach consists of a shared all movement lane. All movements are allowed at this intersection. It is noteworthy that Holland Ave has no parking restrictions between 3:30-5:30 PM for the southbound movement but allowed on-road parking on both sides of the road on the curbside lane at all other times.

Wellington St/Holland Ave

The Wellington/Holland intersection is a four-legged signalized intersection. The southbound and northbound approaches consist of a shared through-left lane and a shared through-right lane. The westbound and eastbound approaches consist of a shared through-left lane and a right turn lane. All right-turns have a no-right-turn-on-red restriction from 07:00-19:00. It is noteworthy that Holland Ave has no parking restrictions between 3:30-5:30 PM for the southbound movement and 7:00-9:00 AM for the northbound movement south of Wellington St but allowed on-road parking on both sides of the road on the curbside lane at all other times.

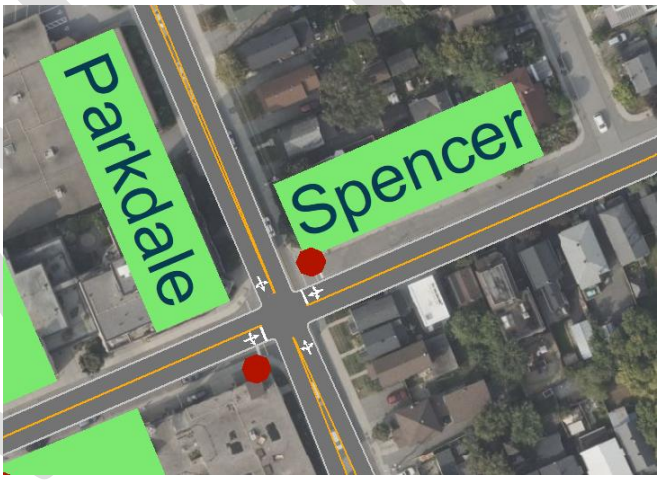
Scott St/Parkdale Ave

The Scott/Parkdale intersection is a four-legged signalized intersection. The northbound, southbound, and eastbound movements consist of a left-turn lane and a shared through-right lane. The westbound approach consists of a single left-turn lane, a through lane and a right-turn lane. All movements are allowed at this intersection.



Spencer St/Parkdale Ave

The Spencer/Parkdale intersection is a four-legged unsignalized intersection with stop control on Spencer St. All approaches consist of a shared all movement lane. All movements are allowed at this intersection.



Armstrong St/Parkdale Ave

The Armstrong/Parkdale intersection is a four-legged signalized intersection. All approaches consist of a shared all movement lane. All movements are allowed at this intersection.

Wellington St/Parkdale Ave

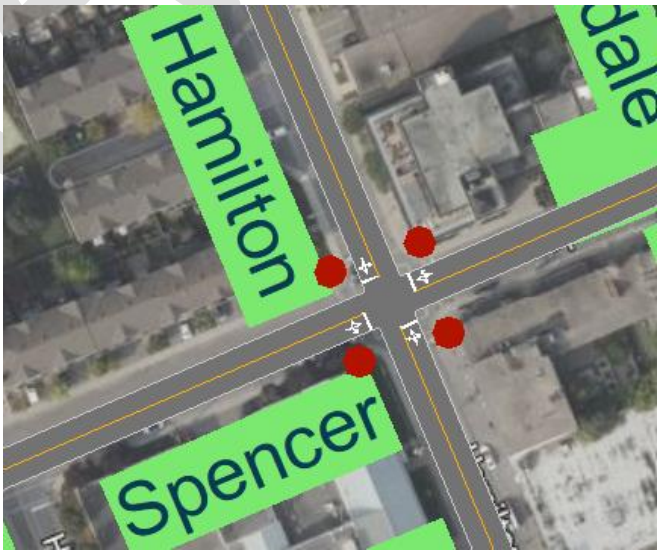
The Wellington/Parkdale intersection is a four-legged signalized intersection. The southbound and northbound approaches consist of a shared through-left lane and a shared through-right lane. The westbound and eastbound approaches consist of a shared through-left lane and a right turn lane. All right-turns have a no-right-turn-on-red restriction from 07:00-19:00.

Gladstone Ave/Parkdale Ave

The Gladstone/Parkdale intersection is a three-legged signalized intersection. The southbound approach consists of a left-turn lane and a through lane. The northbound movement consists of a shared though-right lane. The westbound approach consists of a shared left-right turn lane. All right-turns have a no-right-turn-on-red restriction.

Spencer St/Hamilton Ave

The Spencer/Hamilton intersection is a four-legged unsignalized intersection with an all-way-stop-control. All approaches consist of a single shared all movement lane. All movements are allowed at this intersection.



Armstrong St/Hamilton Ave

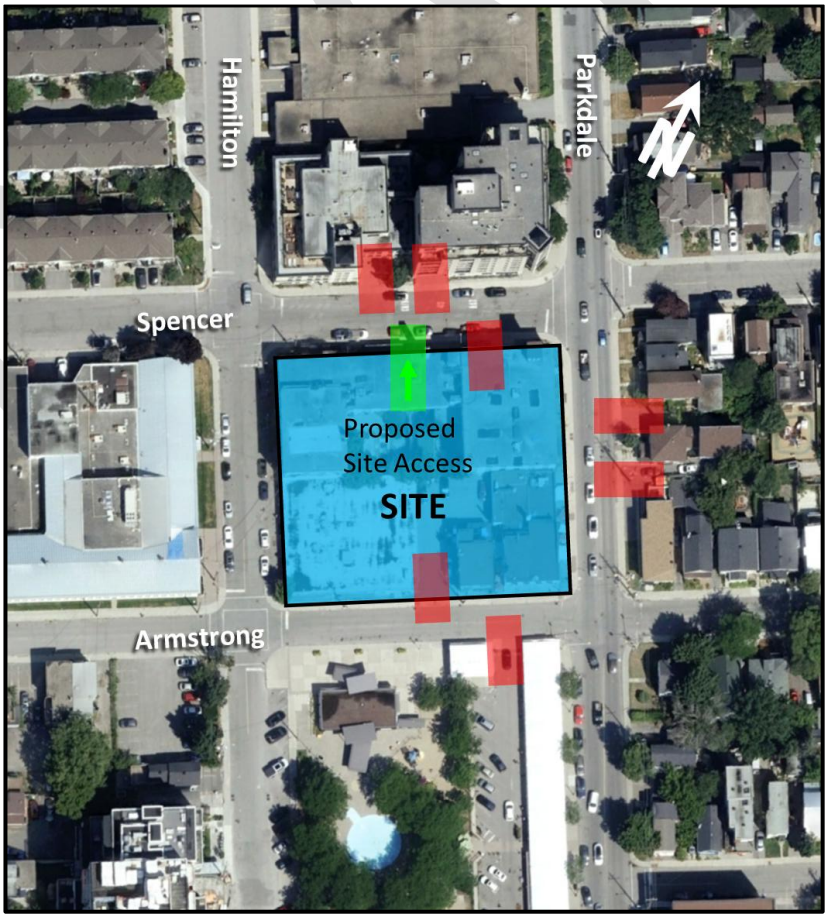
The Armstrong/Hamilton intersection is a four-legged unsignalized intersection with an all-way-stop-control. All approaches consist of a shared all movement lane. All movements are allowed at this intersection.

Existing Driveways to Adjacent Developments

Only driveways to the existing site or adjacent to the site were considered, as shown in **Figure 3**. The existing site has two driveways, one is located off Armstrong St for surface parking, while the other is a driveway to what appears to be an unused garage off Spencer St. These driveways will be removed by the proposed development.

The Parkdale Market has a one-way outbound-only driveway to Armstrong St. Parkdale Ave has two minor private driveways for the low-rise developments. Spencer St has two garage accesses to the towers located at 320 Parkdale Ave and 45 Spencer St.

Figure 2-3: Adjacent Driveways within Area of Influence of Site Access



Existing Area Traffic Management Measures

Existing area traffic management measures within the study area include turn restrictions at Scott/Holland during peak hours and no-right-on-red at some locations.

Existing Special Events Affect Area Traffic – The Parkdale Public Market

The Parkdale Public Market is Ottawa's second oldest market, located west of Parkdale Avenue and south of Armstrong Street. The Public Market hosts a number of community events throughout the year. It is an anchor for the community, also doubling as a Community Supported Agriculture pick-up hub. It typically operates 7 days a week from May through October, from 9AM to 5PM. From November to December, the Public Market sells Christmas Trees and other décor. From June to early October, the Parkdale Night Market occurs on Wednesday evenings (2024). The land is publicly owned and operated by the ByWard Market District Authority (BMDA), a Municipal Services Corporation (MSC) and not-for-profit corporation working in partnership with the City of Ottawa

With regards to transportation, the Market is expected to attract notable pedestrian and cycling demand, and a limited amount of additional vehicle activity. An important consideration is the additional Market-related pedestrian volume demand for crossings of Parkdale Avenue and Wellington Street. The vehicle demand to and from the Market is anticipated to be negligible during the morning and afternoon street peak hours given the limited overlap and limited amount of parking in the immediate vicinity of the Market. The west leg of the Parkdale/Armstrong intersection is frequently closed to facilitate the Market operations. The Market has two parking lots west of Parkdale Avenue; the first of which is accessed from Parkdale and provided a one-way drive aisle, exiting onto Armstrong Street; the second is a series of angle parking on Hamilton Ave N.

The proposed development would not affect the operations of the Market.

Existing Pedestrian/Cycling Network

Sidewalks are provided on both sides of all study area roads except for Scott St which has sidewalks on the south side of the road and a multi-use pathway (MUP) on the north side of the road.

Sidewalks are available on the north (Spencer), east (Parkdale), and south (Armstrong) site boundaries, varying from 1.5m-2.2m in width. No sidewalk facilities are provided along the site frontage on Hamilton Ave.

The Crosstown Bikeway Network (March 1, 2023)[1] from the new Transportation Master Plan classifies Scott St as crosstown bikeways as shown in **Figure 4**. As of 2024, Scott St has upgraded its buffered 1.8m curbside bike lane on the south side of the road to a 2.0m unidirectional cycle-track with occasional remaining buffered curbside bike lanes. The 3.5m MUP on the north side of Scott St has occasional segments which separate cyclists from pedestrians with a new 2.0m cycle-track. The eastbound unidirectional cycling facilities appear to originate from Kichi Zibi Mikan to Bayview Station. Along with these cycling improvements, various intersections along the corridor have been upgraded to protected intersection designs, including protected refuge islands for pedestrians and cyclists and some signal timing updates such as protected turns or no-right-turn-on-reds. The intersection improvements on Scott St from Parkdale Ave to Bayview Station have been provided in **Appendix B**.

In July 2025, Phase 2 of the Transportation Master Plan was adopted. Within it, the "Cycling Network - Urban" (Map D1) classifies Scott St as a crosstown bikeway and cycling network as well as having a major pathway. Holland Ave, Wellington Ave and Gladstone Ave are identified as part of the cycling network.

[1] Crosstown Bikeway Network, March 1, 2023

Figure 2-4: 2023 TMP Crosstown Bikeway Network

Transit Network

The site is located within 600m walk to Tunney's Pasture Station, a major transit hub with access to LRT, 11 frequent bus routes, 12 local routes, 9 connexion routes and 1 STO Gatineau route. Given that the site is very well serviced by transit, only the highest order of transit routes were summarized below:

- **Confederation LRT Line (Blair <-> Tunney's Pasture:** LRT providing grade-separated rapid transit operating 7 days a week at all time periods. The nearest LRT Station is located approximately 600m walk from the site at Tunney's Pasture Station.
- **Various Frequent Routes within 600m Walk:** OC Transpo identifies "Frequent Routes" as those operating 7 days a week in all time periods. These rapid routes provide fast access to major destinations including Kanata, Stittsville and Barrhaven, including routes #11, 12, 14, 57, 61, 62, 63, 74, 75, 80 and 87.
- **Other Routes:** there are various other routes near to the site, including 'connexion' and local routes. Of note, routes #56, 86 and 89 have active bus stops on Parkdale Ave and Holland Ave near the site.
- **Closer Routes than Tunney's Pasture**: Route #14 has a stop located on Parkdale Ave adjacent to the site which provides service to St. Laurent via Gladstone Ave, Elgin St and Montreal Rd. Routes #53 and 80 have an active bus stop approximately 175m from the site on Holland Ave and provide service to Carlington and Merivale Rd areas. Route #51 has an active bus stops approximately 200m from the site on Holland Ave, while route #11 has an active stop on Holland Ave and Wellington Ave with service on Richmond St and to Brittania Park.

The transit network for the study area is illustrated in **Figure 5** with **Figure 6** illustrating the bus and LRT stop locations near to the site.

Figure 2-5: Area Transit Network (December, 2025)

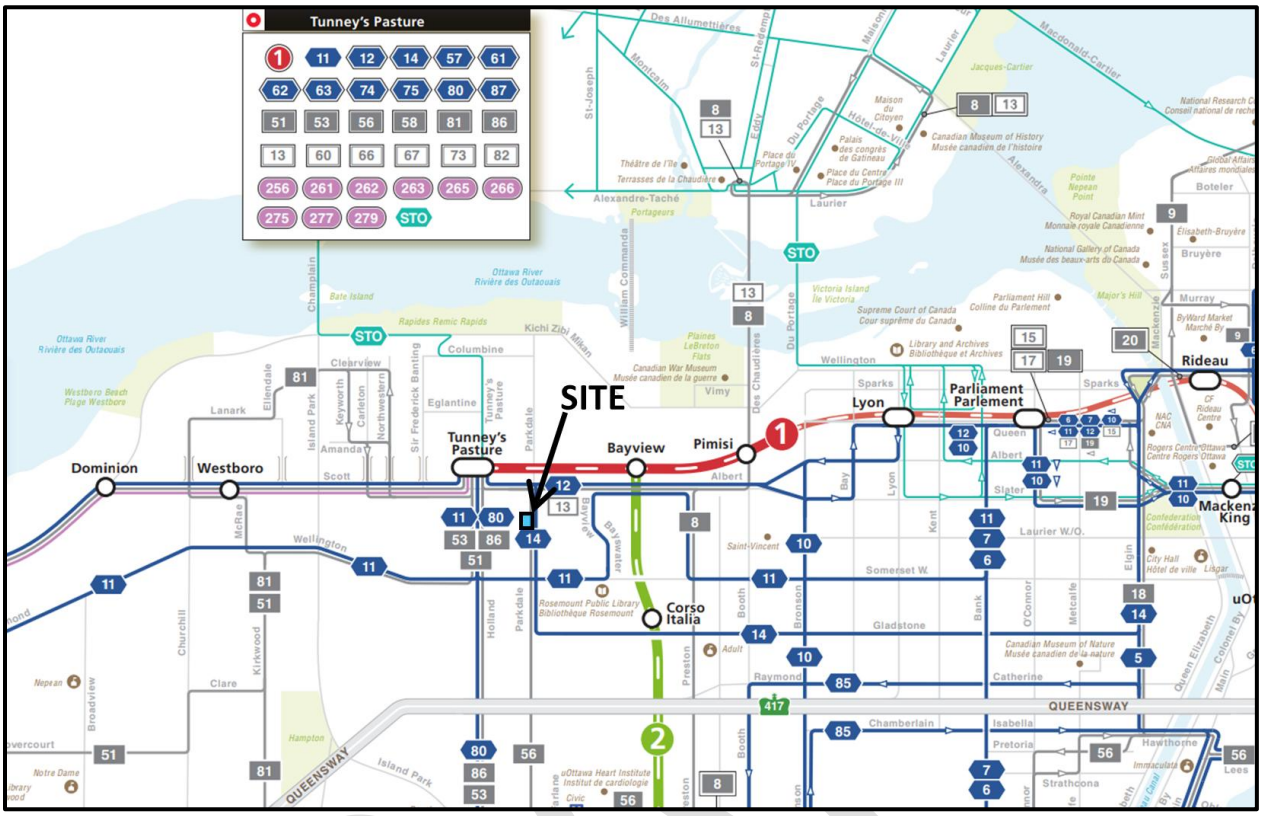
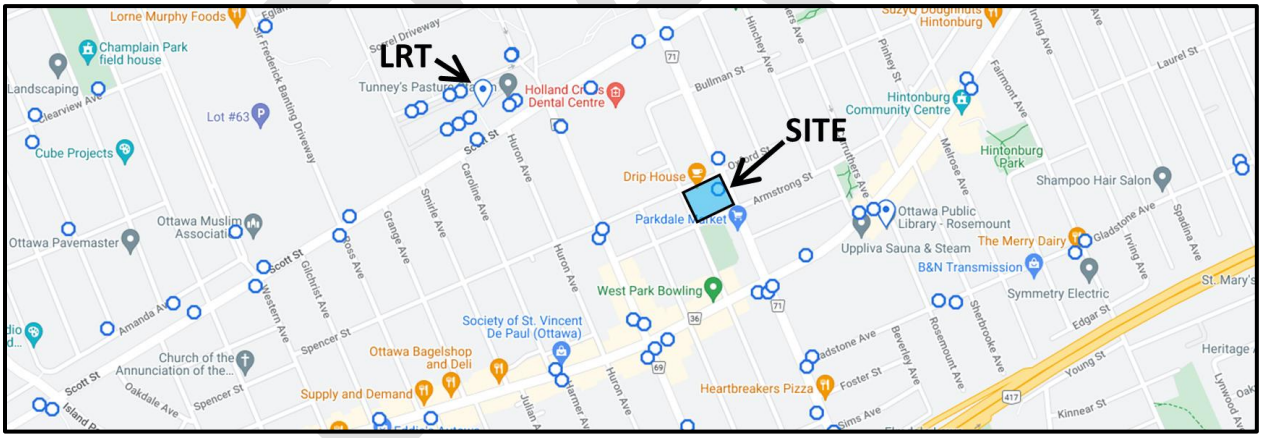


Figure 2-6: LRT & Bus Stop Locations



Peak Hour Travel Demands

Traffic count data was obtained from the City of Ottawa, along with counts specifically conducted for the purpose of this study. The traffic volumes at study area intersections are illustrated in **Figure 8**, with raw traffic count data provided in **Appendix C**. Existing active transportations volumes have been provided in **Figure 7**, however note that some were conducted in winter when active users, especially cyclists and pedestrians are expected to be lower than summer months.

Based on a review of the Wellington/Parkdale (March 2020) and Parkdale/Spencer (April 2024), the morning peak hour and afternoon peak hours along Parkdale Avenue typically occur between 7:00AM-8:00AM and 4:40PM-5:45PM, respectively.

The following counts and their data collection dates have been included in this study.

- Scott/Holland - 2024/12/02
- Spencer/Holland – 2017/01/11
- Armstrong/Holland – 2024/05/01
- Wellington/Holland – 2017/11/22
- Spencer/Hamilton – 2016/11/23
- Armstrong/Hamilton – 2024/04/24
- Scott/Parkdale – 2023/03/08
- Spencer/Parkdale – 2024/04/24
- Armstrong/Parkdale – 2019/11/20
- Wellington/Parkdale – 2020/03/10
- Gladstone/Parkdale – 2019/12/05

While the two counts adjacent to the Parkdale Market (Armstrong/Parkdale and Wellington/Parkdale) were conducted outside of the typical summer market days between May and end of October, the counts on Armstrong were still conducted during a busy time at the market with preparations for Christmas Holidays. It is expected that the minimal vehicular traffic generated by the market would be captured within this count. As previously noted, the majority of visitors to the market arrive by means of transportation other than driving. During the summer months, the market attracts higher numbers of pedestrians and cyclists. The counts are considered to provide sufficient information to undertake a transportation analysis based on typical weekday peak hour conditions of the study area intersections. Older counts (2016, 2017) were balanced with adjacent newer traffic counts.

Figure 2-7: Existing Pedestrian and Cyclists Peak Hour Volumes – AM (PM) Peak Hour

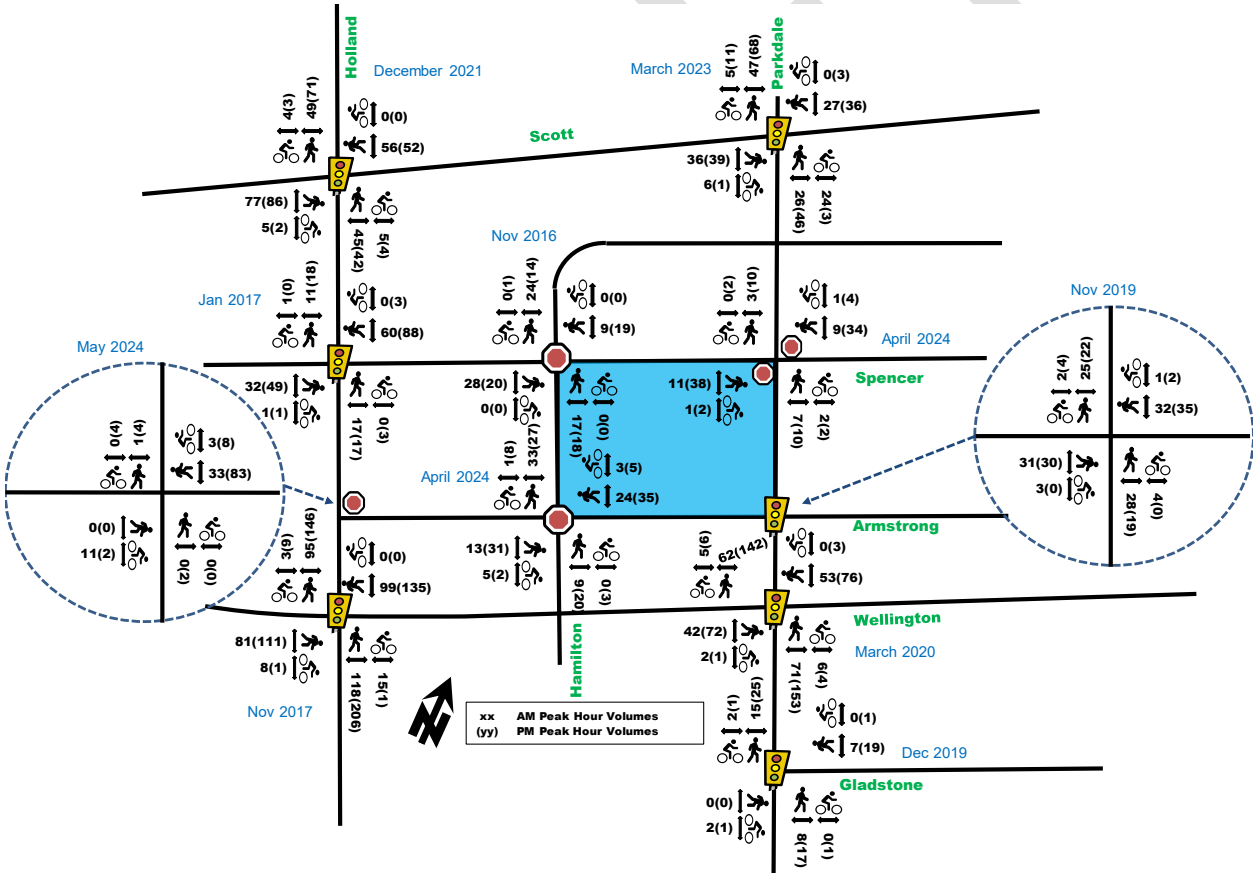
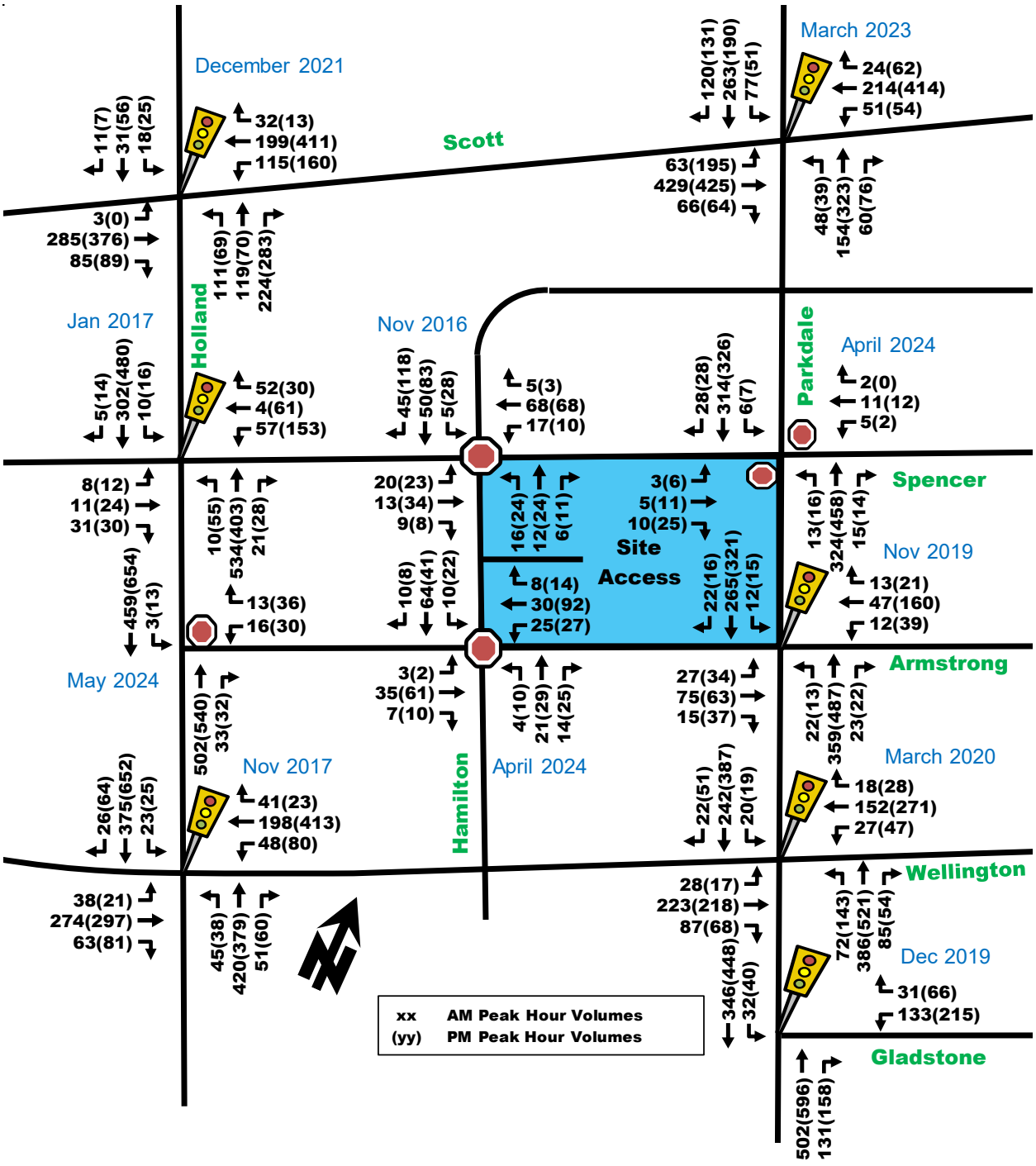


Figure 2-8: Existing Peak Hour Vehicle Traffic Volumes – AM (PM) Peak Hour



Note: Where appropriate, volume balancing has been applied.

Existing Road Safety Conditions

A detailed five-year collision history data (2018-2022, inclusive) was obtained from the City of Ottawa for the study area intersections and road segments within the study area. Detailed collision analysis has been provided in Appendix D.

Upon analyzing the collision data, the total number of collisions observed within the study area was determined to be 234 collisions within the past five-years. The majority of the collisions, 201 or 86%, resulted in property-damage-only (PDO), 32 or 14% resulted in non-fatal injury collisions and 1 or less than 1% were classified non-reportable. There were no fatal collisions recorded within the study area.

Table 1: Collision Summary by Type and Severity

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV Other	SMV Unattended	Other	Total
Property-Damage-Only (PDO)	56	27	44	40	2	2	29	1	**201 (86%)**
Non-fatal injury	9	8	2	7	0	6	0	0	**32 (14%)**
Fatal Incidents	1	0	0	0	0	0	0	0	**1 (<1%)**
Total	**66 (28%)**	**35 (15%)**	**46 (20%)**	**47 (20%)**	**2 (1%)**	**8 (3%)**	**29 (12%)**	**1 (<1%)**	**229 (100%)**

Rear end, sideswipe and angle type collisions made up approximately two thirds of all recorded collisions, which is likely attributed to the short block sections, heavy volumes in some areas, the proximity of adjacent traffic signals and multiple conflicts at driveways, parked vehicles and intersections. Turning Movement (15%) and single vehicle unattended (12%) collisions were also found to be notable.

Table 2 summarizes the collision history by intersection, including the total number of collisions, percent causing injury, number of collisions with vulnerable road users, and the most frequent collision type. Similarly, the mid-block collisions are summarized in **Table 3.**

Table 2: Collision Summary at Study Area Intersections, Vulnerable Road Users

Intersection Location	# Collisions in 5 Years	% Causing Injury	# Collisions with Peds	# Collisions with Bikes	Most frequent type of collision and % of total collision at that location
Scott/Holland	22	5%	0	0	Sideswipe (41%), Turning Movement (27%)
Spencer/Holland	3	33%	0	0	Rear End, Sideswipe, angle (33% each)
Armstrong/Holland	6	0%	0	0	Angle (100%)
Wellington/Holland	26	12%	2	1	Rear End (35%), Sideswipe (31%)
Scott/Parkdale	33	18%	0	3	Rear End (36%)
Spencer/Parkdale	7	14%	0	0	Angle (71%)
Armstrong/Parkdale	8	38%	1	1	Rear End, Angle (38% each)
Parkdale/Wellington	38	8%	0	1	Rear End (37%), Sideswipe (26%), Turning (21%)
Gladstone/Parkdale	21	33%	2	2	Rear End (48%), Sideswipe (29%)
Spencer/Hamilton	0	0	0	0	n/a
Armstrong/Hamilton	2	50%	0	1	Angle (100%)

Table 3: Collision Summary at Study Area Mid-Block Locations

Midblock Location	# Collisions in 5 Years	Length of Segment	% Causing Injury	# Collisions with AT	Most frequent type of collision and % of total collision at that location
On Holland Ave	9	460m	22%	0	Turning (44%), Sideswipe and Single Unattended (22% each)
On Scott St	7	225m	14%	1 bike	Turning Movement (43%)
On Parkdale Ave	25	645m	12%	1 ped	Rear End (36%), Single Unattended (28%), Angle (24%)
On Wellington St	21	230m	0%	0	Single Unattended (62%)
On Armstrong St	3	230m	0%	0	Single Unattended (67%)
On Spencer St	3	230m	0%	0	Single Unattended (100%)

In review of intersection patterns fronting and surrounding the site, the four intersections and adjacent street segments are not observed to have notable vehicle collision patterns in the 5-year period. Parkdale/Armstrong and Hamilton/Armstrong recorded vulnerable road user collisions, with 2 of 3 of the injury causing collisions at Armstrong/Parkdale resulting with collisions with vulnerable road users. Both of the vulnerable user collisions at Armstrong/Parkdale intersection involved a motor vehicle making a westbound left-turn.

Intersections such as Scott/Holland, Wellington/Holland, Scott/Parkdale, Wellington/Parkdale and Gladstone/Parkdale are all arterial-to-arterial or arterial-to-collector intersections which handle larger volumes of vehicles and heavier turning movements which generally correlate to higher frequency of collisions and considered an expected result.

A further review showed that all of the intersections with 6 or more collisions resulted in a non-fatal injury rate of less than or equal to 20%, which is normally considered within an acceptable threshold, with the exception of Armstrong/Parkdale and Gladstone/Parkdale. Of the 7 collisions resulting in non-fatal injury at the Gladstone/Parkdale intersection, 4 of them (57%) were a result of collisions with cyclists and pedestrians. The general low propensity of injury causing collisions is likely a result of low operating speeds and likely low speed impacts. The two collisions with cyclists involved sideswipes, like as a result of the shared bike/vehicle lanes.

The majority of mid-block collisions were categorized as single unattended vehicle, likely involving vehicles colliding with parked vehicles, resulting in little to no injury causing collisions.

Where more than 6 collisions were recorded at a single location, further review was undertaken.

- At Scott/Holland, 5 of 9 sideswipe movement collisions occurred from northbound vehicles changing lanes. All 9 resulted in property damage only.
- At Wellington/Holland, 2 of 3 collisions causing injury involved a pedestrian. 7 of 9 rear end collisions and 6 of 8 sideswipe collisions involved vehicles travelling either northbound or southbound, but all resulted in property damage only.
- At Scott/Parkdale, 3 of 6 collisions causing injury involved cyclists. Two of them involved left-turning vehicles and the other a right-turning vehicle. Of the 12 rear end collisions, 8 involved northbound vehicles, however they all resulted in property damage only.
- At Spencer/Parkdale, 5 of 8 collisions were a result of angle collisions, with the initial vehicle headed eastbound (either going through or turning) and the second vehicle headed northbound.
- As discussed previously Armstrong/Parkdale experienced 2 of 8 collisions involving vulnerable users.
- At Parkdale/Wellington, most collisions (35 of 38) resulted in property damage only. No clear pattern was observed based on the available data.
- As previously discussed, Gladstone/Parkdale experienced 2 collisions with pedestrians and 2 collisions with cyclists, all resulting in injury. It was observed that 12 of 16 rear end and sideswipe collisions were the result of an initial vehicle travelling northbound or southbound.
- On the Holland Ave mid-block segments, 2 of 9 collisions resulted in injury, however no pattern was found.
- On Scott St mid-block segments, 1 collision involved a cyclist resulting in injury.

- On Parkdale Ave mid-block segments, most of the collisions resulted in property damage only. It is noteworthy that this segment is much longer than other analyzed segments and thus gives the impression that it has a higher propensity for collisions. None of the sub-sections that were conglomerated into the Parkdale segments experienced a notoriously higher propensity for collisions.
- On Wellington St mid-block segments, 13 of 21 collisions resulted with a single unattended vehicle, likely a result of a parked vehicle being hit. None of the collisions on Wellington St mid-block resulted in injury.

A total of 6 collisions with pedestrians, and 10 collisions with cyclists (7% of all collisions) was recorded within the study area. 7 of 10 (70%) of the cycling collisions occurred on intersections with Parkdale Avenue.

Since no north-south cycling facilities are available within the study area, the City of Ottawa could consider improving the cycling network by implementing north-south cycling facilities such as the envisioned on-road bike facilities on Holland Ave as part of the Scott St CDP (refer to next section for more details). Improvements at the intersection level such as protected left-turns or protected heavy right-turn conflicts could reduce collisions with active users, at the cost of vehicle level of service and possible longer queues. A less imposing approach to vehicle level of service while providing better vehicle and active transportation priority could include leading bike/pedestrian intervals to better improve visibility of active users before vehicle turning movements begin or providing alternate routes for bikes where fewer vehicle volumes are present.

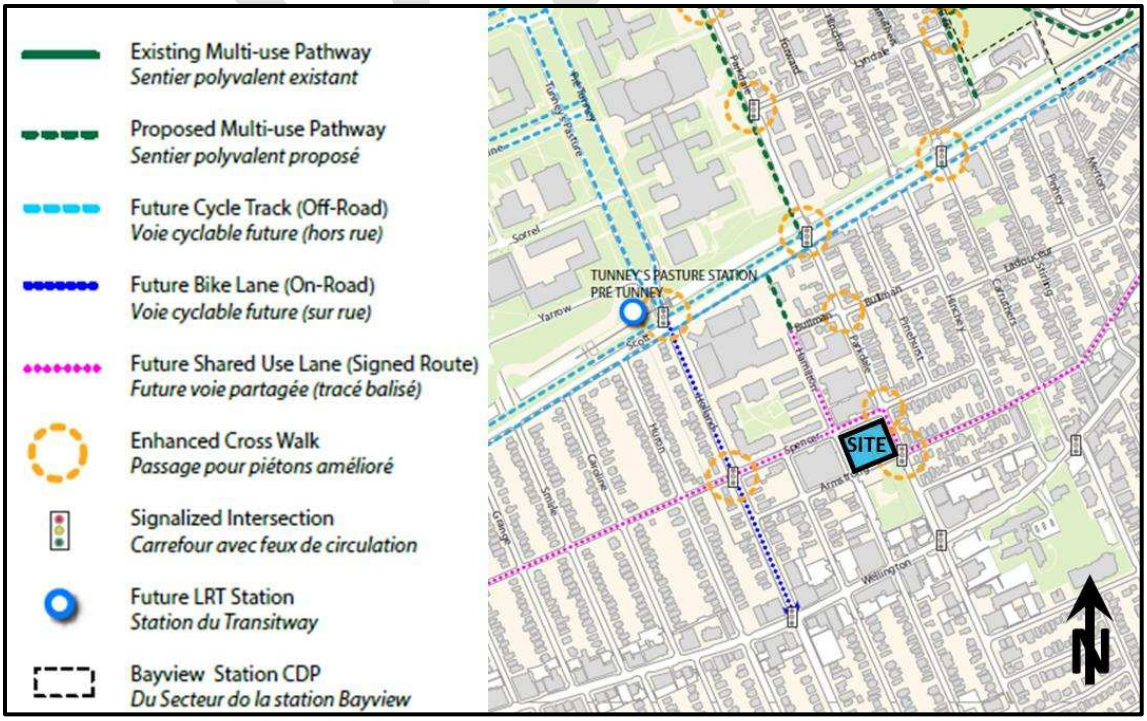
2.1.3. Planned Conditions

Future Transportation Network Changes

Community Design Plans (2011 and 2014)

The development is within the Wellington St West Community Design Plan (CDP – April 2011) and along the southern periphery of the Scott St CDP (January 2014). Within the CDPs, there are proposed improvements to crosswalks at intersections and mention of the future bike lanes proposed on Holland as shown in **Figure 9**. Of note, the Wellington St West CDP recommends publicly accessible paths through private developments (Section 3.2.7) where applicable and feasible.

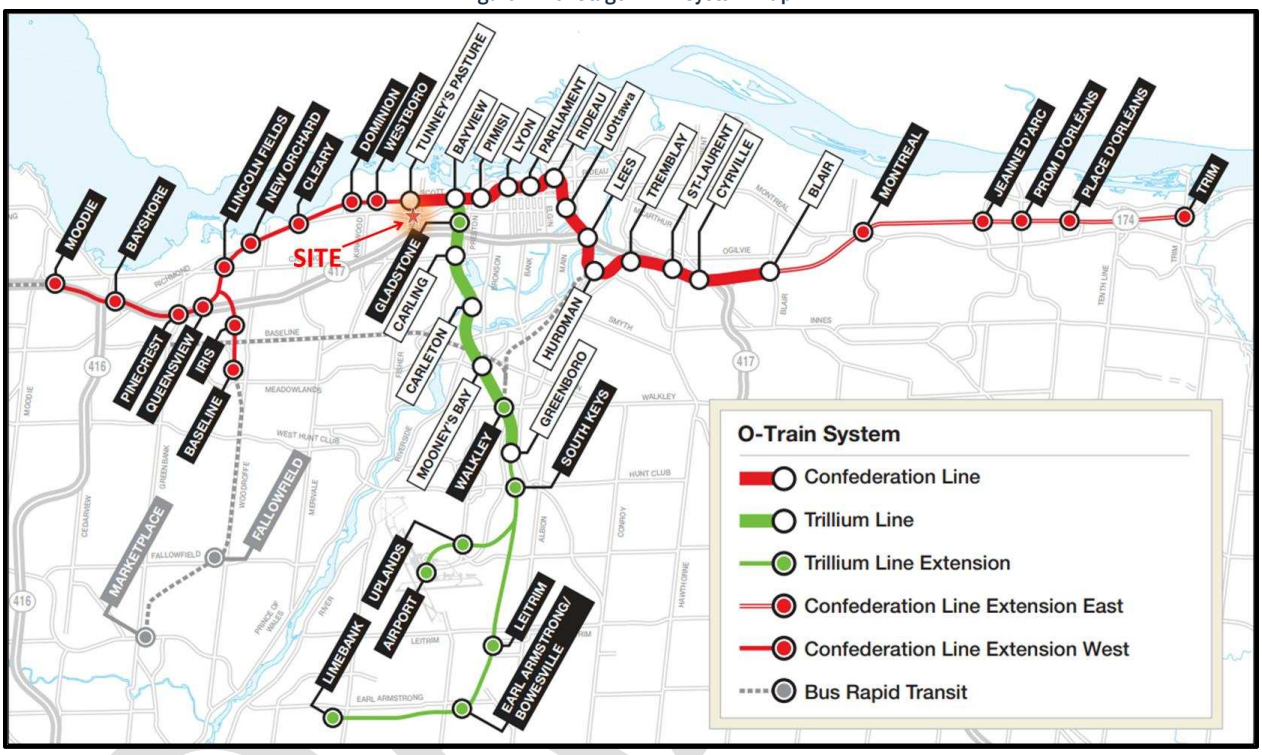
Figure 2-9: Scott St CDP Proposed Network Enhancements



Ottawa LRT Stage 2 (Began Construction 2019)

The site is located within 600m walk from existing Tunney's Pasture LRT Station, where Stage 1 of the LRT finishes, and Stage 2 rail extension begins. Stage 2, as shown in **Figure 10,** is a package of three extensions – south, east and west – totaling 44 km of new rail and 24 new LRT stations. Stage 2 of the City of Ottawa LRT system is currently under construction, with the south extension operational since January 2025, the east extension to open by 2026, and the west extension by 2027[2]. Once this extension is complete, the site will have various new destinations using rapid grade-separated LRT transit.

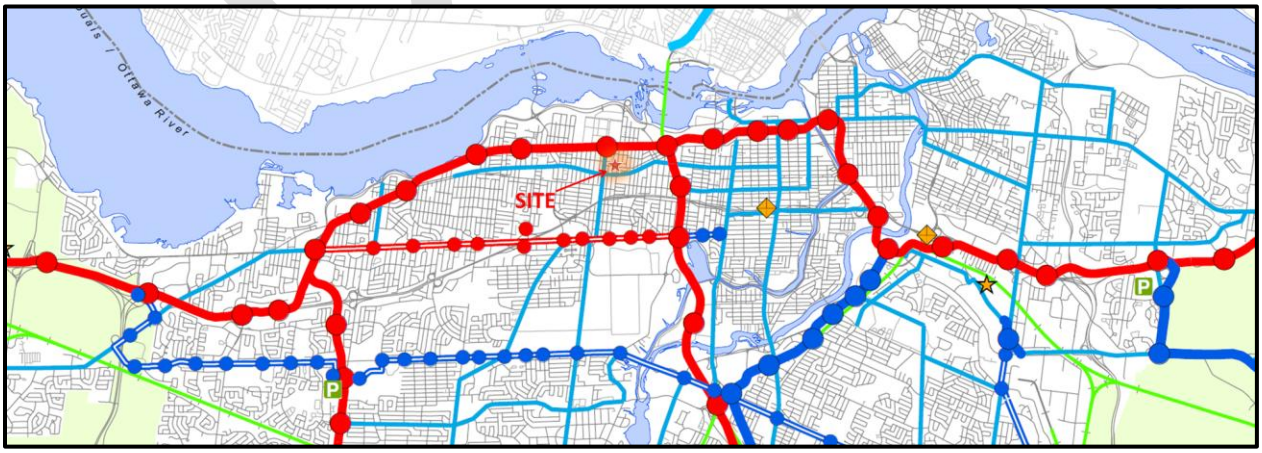
Figure 2-10: Stage 2 LRT System Map



Official Plan (2021)

According to the Official Plan, transit priority corridors are proposed on Wellington St, and Holland Ave. Currently, there are no active studies for any of these transit priority corridors.

Figure 2-11: Official Plan – Ultimate Transit Network



[2] https://ottawacitizen.com/news/local-news/east-and-west-rail-extensions-behind-schedule-light-rail-subcommittee-hears

Transportation Master Plan (2025)

Within the TMP active transportation project list, a feasibility study has been identified on Holland Ave from Tyndall St to Scott St for future cycling facilities. No study was found for this corridor.

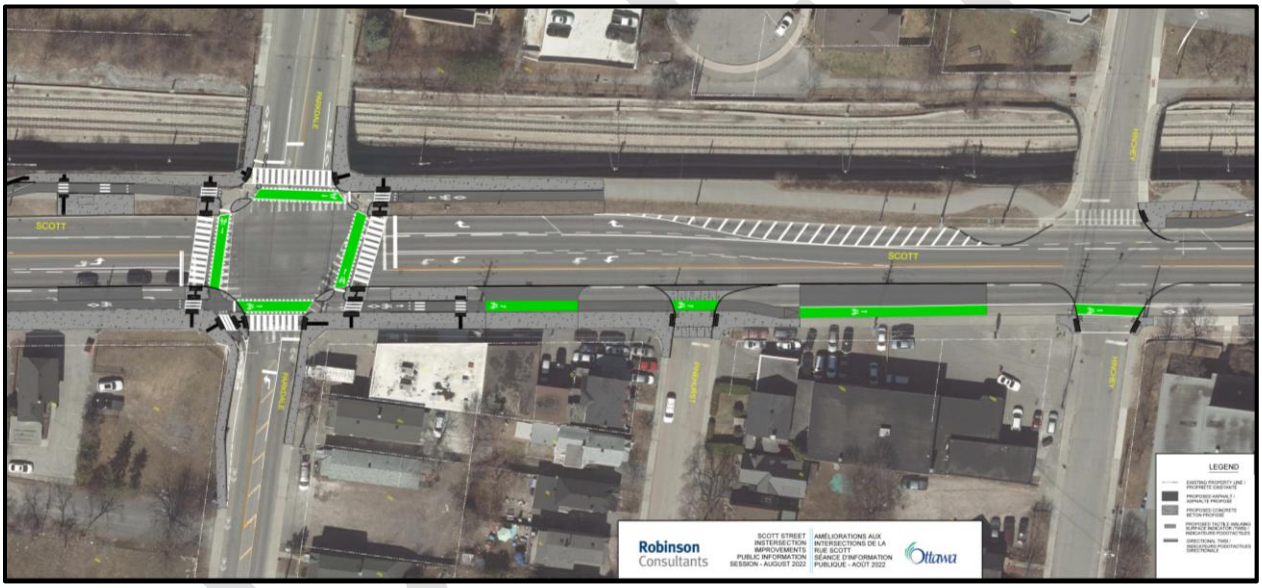
On July 2025, the City of Ottawa adopted Phase 2 of the TMP. No projects were identified within the study area for "Pedestrian Projects with Prioritization". The "Cycling Projects with Prioritization" however highlight a first phase project on Holland Ave from Scott St to Byron Ave.

There are no highlighted road improvements within either the "Road Network – Needs Based" or "Priority" maps. The "Transit Network – Needs Based" and "Priority" maps illustrates both Holland Ave and Wellington St as part of the transit priority corridor.

Scott St Improvements and Protected Intersections (2024 & On-Going)

Construction is on-going for the Scott St cycling facilities plus protected intersection designs including cross-rides, pedestrian and cyclist refuge islands, cycle-tracks and pin curbs at some locations and no-right-turn-on-red plus protected turn movements at some locations. Further details were provided in **Section 2.1.2** Existing Pedestrian/Cycling Network and on **Appendix B** which includes a roll plan from Parkdale Ave to Bayview Station. A snip illustrating the modifications at Scott/Parkdale has been provided in **Figure 12**.

Figure 2-12: Scott St Improvements – Protected Intersection



New Ways to Bus (OC Transpo Bus Routes)

Once the Confederation Line West Extension is complete (forecasted by 2026-2027), bus routes are expected to change to work in conjunction with parallel LRT service beyond Tunney's Pasture. The latest bus route updates were performed on August 19, 2024[3] in preparation for the Trillium LRT Line which has since come into operation. A summary of the proposed bus routes has been provided in **Figure 13**.

[3]https://www.octranspo.com/images/files/maps/network_maps/New_service_map_ROUTE_REVIEW_2024_(MASTER)_19Aug2024.pdf

Figure 2-13: New Ways to Bus (OC Transpo Routes) – August 2024

Other Area Developments

The following section outlines adjacent developments in the general area that were considered in the TIA. **Figure 14** illustrates the site context for other area developments near the subject site with a description of each development below:

Figure 2-14: Other Area Developments (December, 2024)

1 – 1546 Scott St

A 25-storey mixed-use building is proposed consisting of approximately 230 dwelling units and ground floor retail. The anticipated buildout year of the development is 2024, however it has not been built yet. Based on the TIA prepared by IBI on August, 2022, the development is expected to generate a net increase of 13 and 14 veh/h during the morning and afternoon peak hours, respectively, which will be added to background volumes.

2 – 83 Hinton St

A 7-storey mixed-use building is proposed. No TIA was found.

3 – 1186 Wellington St

An 18-storey mixed-use building is proposed consisting of approximately 240 dwelling units and ground floor retail. The anticipated buildout year of the development is 2025. Based on the TIA prepared by CGH on June, 2021, the development is expected to generate a net increase of 58 and 69 veh/h during the morning and afternoon peak hours, respectively, which will be added to background volumes.

4 – 211 Armstrong St

A 3-storey low-rise building with 12 units is proposed. No TIA was found.

5 – 177 Armstrong St

A 3.5-storey low-rise building with 18 units is proposed. No TIA was found.

6 – Tunney's Pasture Master Plan

A masterplan for the redevelopment of Tunney's Pasture complex is still ongoing and may include office and workspace for 22,000 to 25,000 employees and 3,400 to 3,700 new residential units. No TIA was found.

2.2. Study Area and Time Periods

For the purposes of this report, the proposed development is assumed to be fully constructed by 2028. The full buildout scenario and five-years after development buildout will be analyzed, 2028 and 2033. The future horizon years analyzed will use the weekday morning and afternoon peak hour traffic volumes. Proposed study area intersections are listed below and illustrated in **Figure 15**. Note: the intersection of Wellington/Caruthers was omitted from analysis given the anticipated low turning volumes, one-way nature (inbound to Wellington only) and negligible impact forecasted from this development.

- Scott/Holland
- Spencer/Holland
- Armstrong/Holland
- Wellington/Holland
- Spencer/Hamilton
- Armstrong/Hamilton
- Scott/Parkdale
- Spencer/Parkdale
- Armstrong/Parkdale
- Wellington/Parkdale
- Gladstone/Parkdale

Figure 2-15: Study Area and Intersections to be Analyzed

2.3. Exemption Review

The following modules/elements of the TIA process provided in **Table 4** are recommended to be exempt in the subsequent steps of the TIA process, based on the City's TIA guidelines and the subject site:

Table 4: Exemptions Review Summary

Module	Element	Exemption Consideration
4.1 Development Design	4.1.3 New Street Network	Only required for plans of subdivision
4.6 Neighbourhood Traffic Management	All	Reference criteria not met; less than 75 auto trips forecasted.
4.7 Transit	4.7.2 Transit Priority	Less than 75 auto trips forecasted.
4.9 Intersection Design	All but site access intersection	Less than 75 auto trips forecasted.

3.0 FORECASTING

3.1. Development Generated Travel Demand

3.1.1. Trip Generation and Mode Shares

Trip Generation Rates

The proposed development will consist of approximately 465 residential units and approximately 5,643 ft^2 of ground floor retail space located in a new L-shaped mixed-use building, as well as the additional stand alone Carleton Tavern pub. The retail space is considered negligible, will be similar to existing retail and will likely provide ancillary uses for the proposed development and surrounding areas, intended for local active trips only and internal trip capture (not anticipated to generate new vehicle trips). For this reason, the commercial use and Carleton Tavern trip generations are considered to be negligible and excluded from the analysis.

The appropriate trip generation rates for high-rise residential units were obtained from the 2020 TRANS Trip Generation Manual. The Manual provides person-trip rates during the peak AM and PM periods (i.e. 7am-9:30am and 3:30pm-6pm). The trip rates are summarized in **Table 5** below.

Table 5: Proposed Development Trip Rates

Land Use	ITE TRANS Source	Data Source	Trip Rates	
			AM Peak	PM Peak
Residential	"High-Rise Residential"	TRANS	T = 0.80(du);	T = 0.90(du);
Note: T = Average Vehicle Trip Ends; du = Dwelling unit				

Using the TRANS Trip Generation rates from **Table 5,** the total amount of person trips generated by the approximate 465 residential units was calculated by multiplying the rate by the number of units, for the morning and afternoon peak periods, as shown in **Table 6**.

Table 6: Residential Units Peak Period Person Trip Generation

Land Use	Dwelling Units	AM Peak Period Person Trips	PM Peak Period Person Trips
High-Rise Residential	465	372	419

The proposed residential units are anticipated to generate approximately 370 and 420 total person trips during the morning and afternoon peak hours respectively. The total peak period person trips in **Table 6** are then divided into different travel modes using mode share percentages obtained from the 2020 TRANS Manual for the "Ottawa West" district. **Table 7** provides the travel mode breakdown for the proposed high-rise apartments.

Table 7: High-Rise Apartments Peak Period Trips Mode Shares Breakdown

Travel Mode	Mode Share	AM Peak Period Person Trip	Mode Share	PM Peak Period Person Trips
Auto Driver	28%	106	33%	138
Auto Passenger	11%	43	11%	48
Transit	41%	153	26%	107
Cycling	3%	12	7%	29
Walking	16%	58	23%	97
Total Person Trips	**100%**	**372**	**100%**	**419**

Standard traffic analysis is usually conducted using the morning and afternoon peak hour trips as they represent a worst-case scenario. In the 2020 TRANS Manual, Table 4 provides conversions rates from peak period to peak hours for different mode shares. The conversion rates are provided in **Table 8** below.

Table 8: Peak Period to Peak Hour Conversion Factors (2020 TRANS Manual)

Travel Mode	Peak Period to Peak Hour Conversion Factors	
	AM	PM
Auto Driver and Passenger	0.48	0.44
Transit	0.55	0.47
Bike	0.58	0.48
Walk	0.58	0.52

Using the conversion rates in **Table 8** and the peak period person trips for different travel modes in **Table 7**, the peak hour trips for different travel modes can be calculated as shown in **Table 9.**

Table 9: Residential Peak Hour Trips Generated - TRANS Mode Share

Travel Mode	Mode Share	AM Peak Hour (Trips/h)			Mode Share	PM Peak Hour (Trips/h)		
		In	Out	Total		In	Out	Total
Auto Driver	28%	16	35	51	33%	35	25	61
Auto Passenger	11%	6	14	20	11%	12	9	21
Transit	41%	26	58	84	26%	29	21	50
Cycling	3%	2	5	7	7%	8	6	14
Walking	16%	10	23	34	23%	29	21	51
Total Person Trips	**100%**	**61**	**135**	**196**	**100%**	**114**	**82**	**196**

Since the development is within 600m walk of a major LRT Station at Tunney's Pasture, then the transit-oriented development (TOD) mode shares which propose 65% transit, 15% auto driver, 5% auto passenger, 5% cycling and 10% walking mode shares are generally considered appropriate. The transit mode share has been adjusted to account for higher anticipated walking and cycling mode share given the location of the site. Downtown Ottawa is located approximately 3km by bike via mostly physically separated cycling facilities, offering an attractive mode of commuting. Similarly, Tunney's Pasture Complex is located approximately 600m from the site which hosts a large employment hub in Ottawa, likely attracting some additional walking trips for any tenant who may work there and live at this new development. A summary of forecasted trip generation by mode shares using proposed mode shares similar to TOD mode shares has been provided in **Table 10**.

Table 10: Residential Peak Hour Trips Generated – TOD Mode Share

Travel Mode	Mode Share	AM Peak Hour (Trips/h)			Mode Share	PM Peak Hour (Trips/h)		
		In	Out	Total		In	Out	Total
Auto Driver	15%	9	20	29	15%	17	12	29
Auto Passenger	5%	3	7	10	5%	6	4	10
Transit	50%	30	68	98	45%	51	37	88
Cycling	10%	6	14	20	10%	11	8	20
Walking	20%	12	27	39	25%	28	21	49
Total Person Trips	**100%**	**61**	**135**	**196**	**100%**	**114**	**82**	**196**

As shown above, the proposed development is anticipated to generate approximately 195 total person trips, 30 vehicle trips, 100 to 90 total transit trips, 40 to 50 walking trips and 20 cycling trips during the AM and PM peak hours. As per the TIA Guidelines, any development producing less than 75 auto driver trips during a peak hour is exempt from **Sections 3.3 Demand Rationalization, 4.6 Neighbourhood Traffic Management, 4.7.2 Transit Priority** and **4.9 Intersection Design and Performance**.

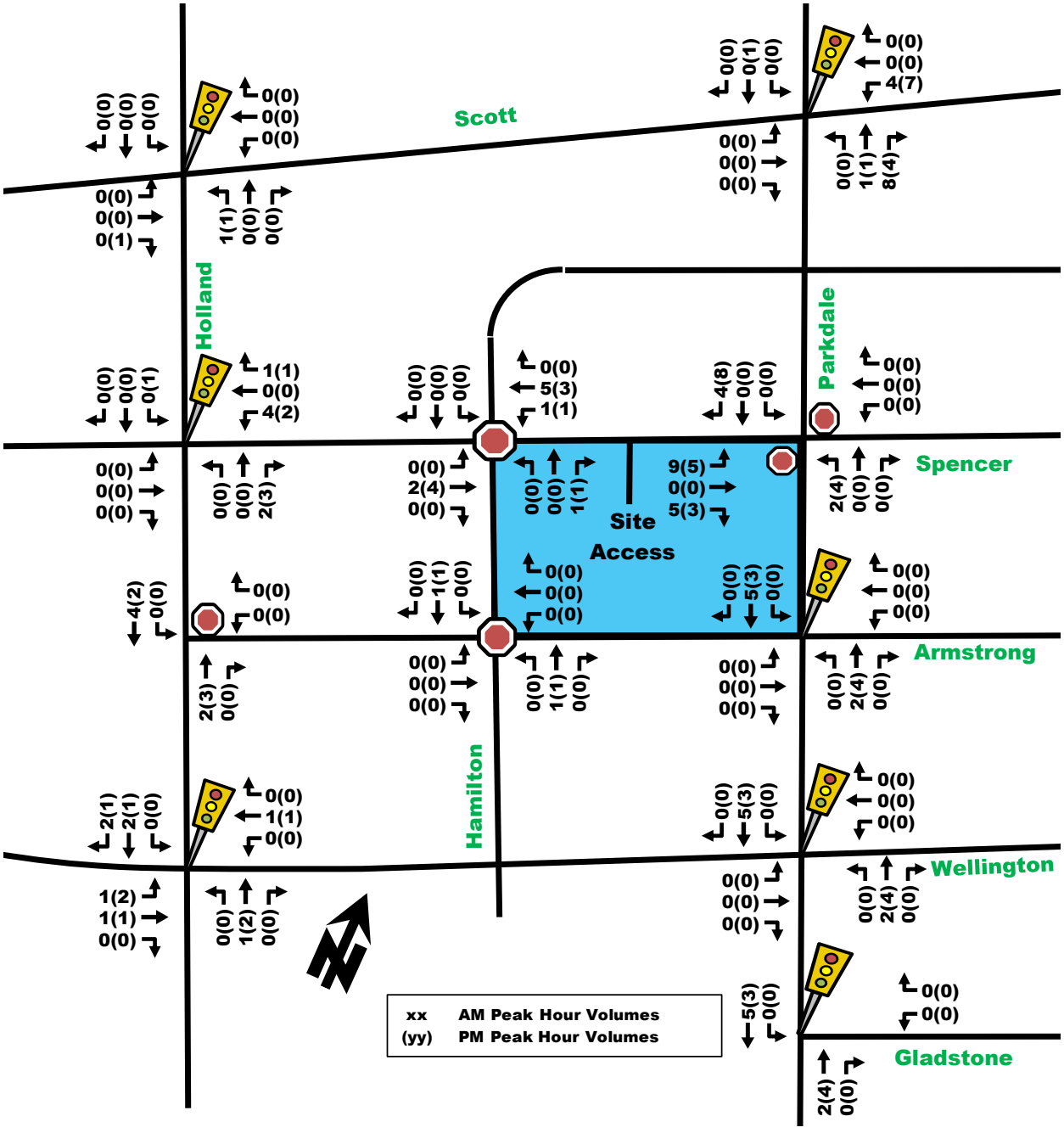
3.1.2. Trip Distribution and Assignment

Based on the 2011 OD Survey (Ottawa West) and the location of adjacent arterial roadways, the distribution of site-generated traffic volumes was estimated as shown in **Figure 16**. Note that approximately 30% of all trips originating from this district stay internal to the Ottawa West area.

Figure 3-1: Site Generated Vehicle Traffic Percent Distribution

The anticipated 'new' auto trips for the proposed development from **Table 9** were then assigned to the road network with the distribution shown above, as shown in **Figure 17,** for the total site-generated traffic for proposed mode share.

Figure 3-2: Site-Generated Traffic Using Proposed Mode Shares - AM (PM) Weekday Peak Hour



3.2. Background Network Traffic

3.2.1. Transportation Network Plans

Refer to **Section 2.1.3: Planned Conditions.**

3.2.2. Background Growth and Other Area Developments

As per guidance from the Official Plan, 60% of new population growth in the City of Ottawa is proposed via intensification and redevelopment of existing neighborhoods[4]. The site is located within the Tunney's Pasture protected major transit station area (PMTSA) and within a hub designation within the official plan, which makes it a great candidate for intensification. The area is ripe for future high-rise and high-density intensification as many low density housing currently exists near the LRT and an employment hub. As described in **Section 2.1.3**, there are various new developments proposed within a 500m radius which will be layered on individually to existing traffic volumes, plus various high-rise buildings which have been recently built or under construction.

Keeping consistent with the big moves and priorities listed on the Official Plan and new Transportation Master Plan, future and existing trips in the area are expected to continue shifting towards active transportation modes including biking, walking and transit over driving. The city is currently investing in further cycling and pedestrian facilities within the core and is extending the reach of LRT.

The following background traffic growth (summarized in **Table 11**) was calculated based on historical traffic count data (years 2007, 2008, 2011, 2014 and 2023) provided by the City of Ottawa at the Parkdale/Scott intersection near the site. Detailed background traffic growth analysis is included as **Appendix E**.

Table 11: Parkdale/Scott Historical Background Growth (2008-2023)

Time Period	Percent Annual Change				
	North Leg	South Leg	East Leg	West Leg	Overall
8 hrs	-1.38%	-1.15%	-1.31%	-1.83%	**-1.43%**
AM Peak	-1.07%	-1.14%	-1.26%	-1.53%	**-1.27%**
PM Peak	-2.02%	-1.81%	-1.23%	-1.98%	**-1.75%**

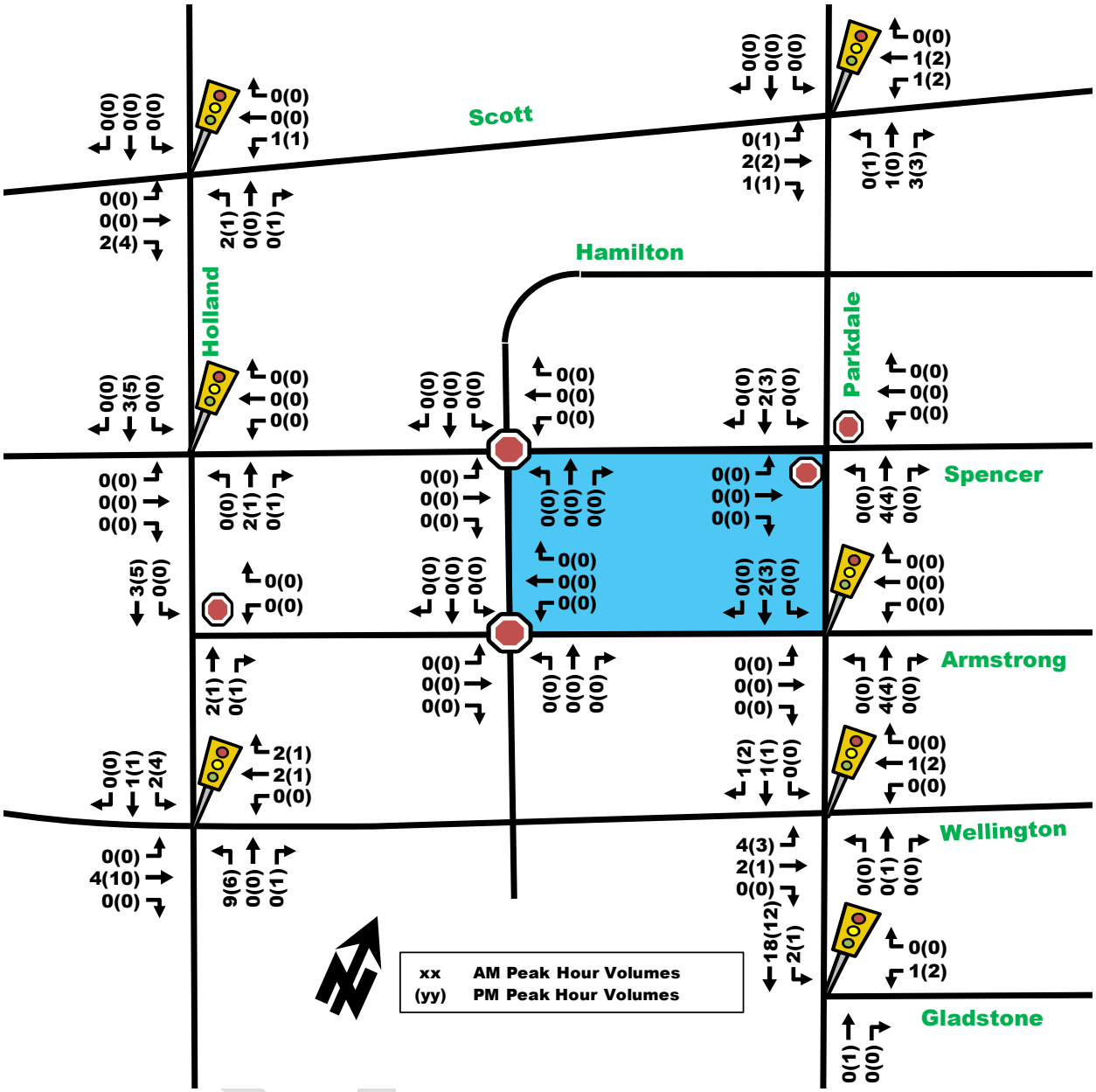
The historic counts collaborate this shift in mode share with negative 1% to negative 2% annual decrease rates in vehicle counts within the study intersection. For this reason, a 0% annual growth rate is considered appropriate and even conservative for the transportation network analysis.

3.2.3. Future Background Volumes

The total number of new other area development vehicle trips projected to use study area intersections have been illustrated in **Figure 18.**

[4] https://documents.ottawa.ca/sites/documents/files/section2_op_en.pdf section 2.2.1.

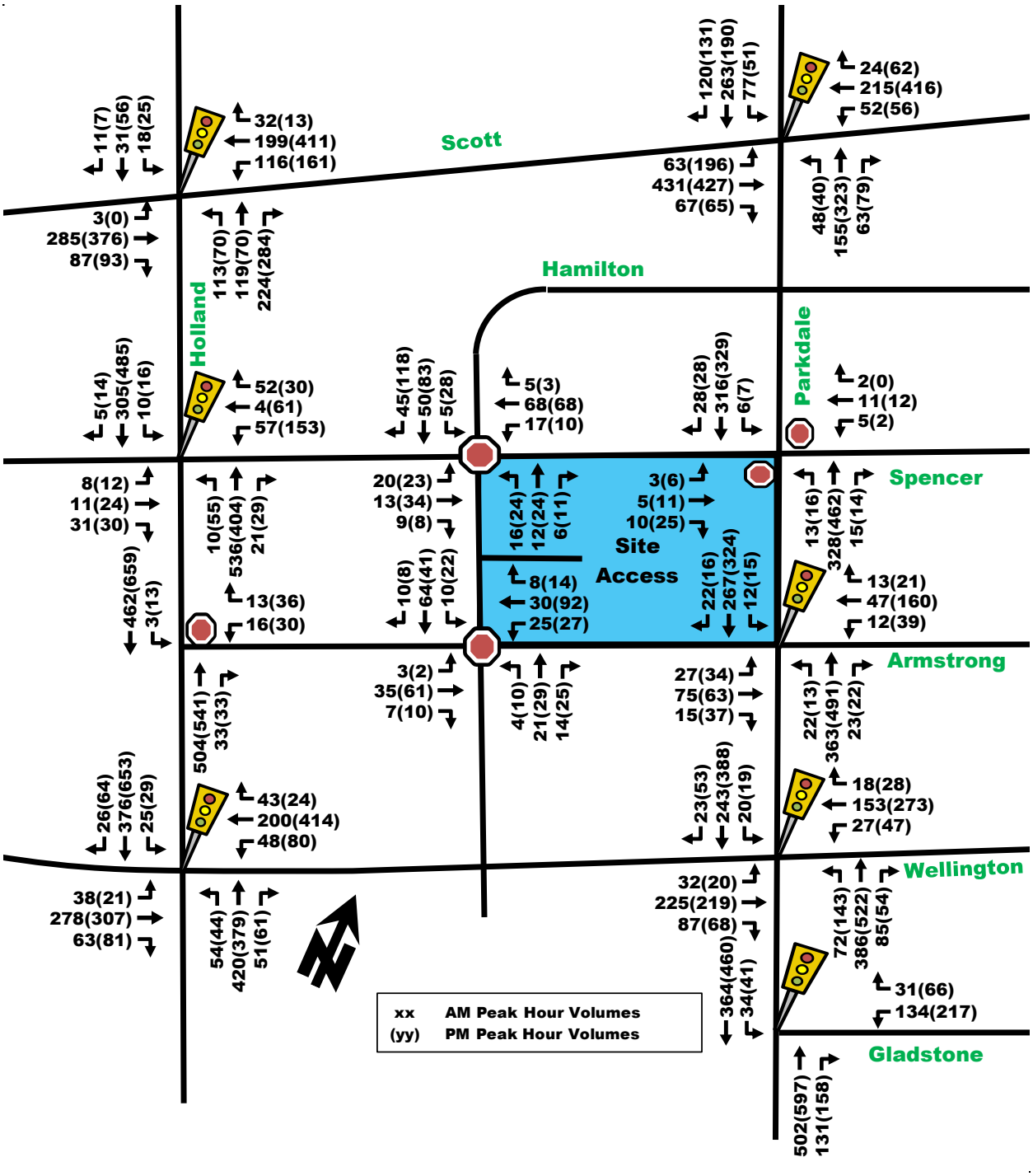
Figure 3-3: Other Area Development Trip Generation - AM (PM) Weekday Peak Hour



These other area development volumes were then layered on to existing balanced volumes. Since no yearly background growth is anticipated, then the 2028 and 2033 background volumes will be the same. The resultant background volumes have been provided in **Figure 19.**

The site is forecasted to have a nominal impact on the overall transportation network. It would rely on Spencer Street for vehicle access. Should the access to Armstrong Street be changed in the future, it would have no adverse impacts on site generated traffic.

Figure 3-4: Future Background Traffic Volumes (2028 & 2033) – AM(PM) Weekday Peak Hour



3.3. Demand Rationalization

The following section is exempt as less than 75 vehicle trips are anticipated (refer to Section 3.1).

4.0 ANALYSIS

4.1.1. Design for Sustainable Modes

Location of Transit Facilities

The site is located within 600m walking distance of Tunney's Pasture LRT Station. There are various routes with existing sidewalks from the site to the station, with the shortest route available via Spencer St to Holland St. This route also provides street lighting for pedestrian comfort.

Transit stop #0880 headed southbound is located adjacent to the site, with its partner northbound bus stop located approximately 30m north of the site on the opposite side of Parkdale Ave. Pedestrians headed to/from the northbound bus stop may cross at the traffic signals currently provided at the intersection of Armstrong/Parkdale. Frequent bus route #14 and local bus route #56 operate using these bus stops. Additional bus routes are provided along Wellington St and Holland Ave, all serviced by sidewalks and street lighting.

Pedestrian/Cycling Routes and Facilities

Sidewalks are provided on most streets within the study area. There is currently a gap in sidewalk facilities along the western boundary of the site on Hamilton Ave N. As part of this redevelopment, the client intends to add a new sidewalk facility, effectively providing sidewalk facilities on all site frontages. The sidewalk facilities bounding the site are understood to be at least 2.0m wide or wider.

A central courtyard is proposed which will allow pedestrian cut-through activity to and from Spencer St, Parkdale Ave and Armstrong St, connecting to the Parkdale Market. There is potential through this project to investigate the closure of the east leg of Parkdale/Armstrong, and conversion of Armstrong St into a dutch-style 'Woonerf' street. Armstrong Street would become further integrated with the Parkdale Market operations, providing a programmable space for regular events throughout the year. The Woonerf design can provide active transportation priority while creating a single fabric uniting the courtyard to the Parkdale Market as illustrated in **Figure 20**.

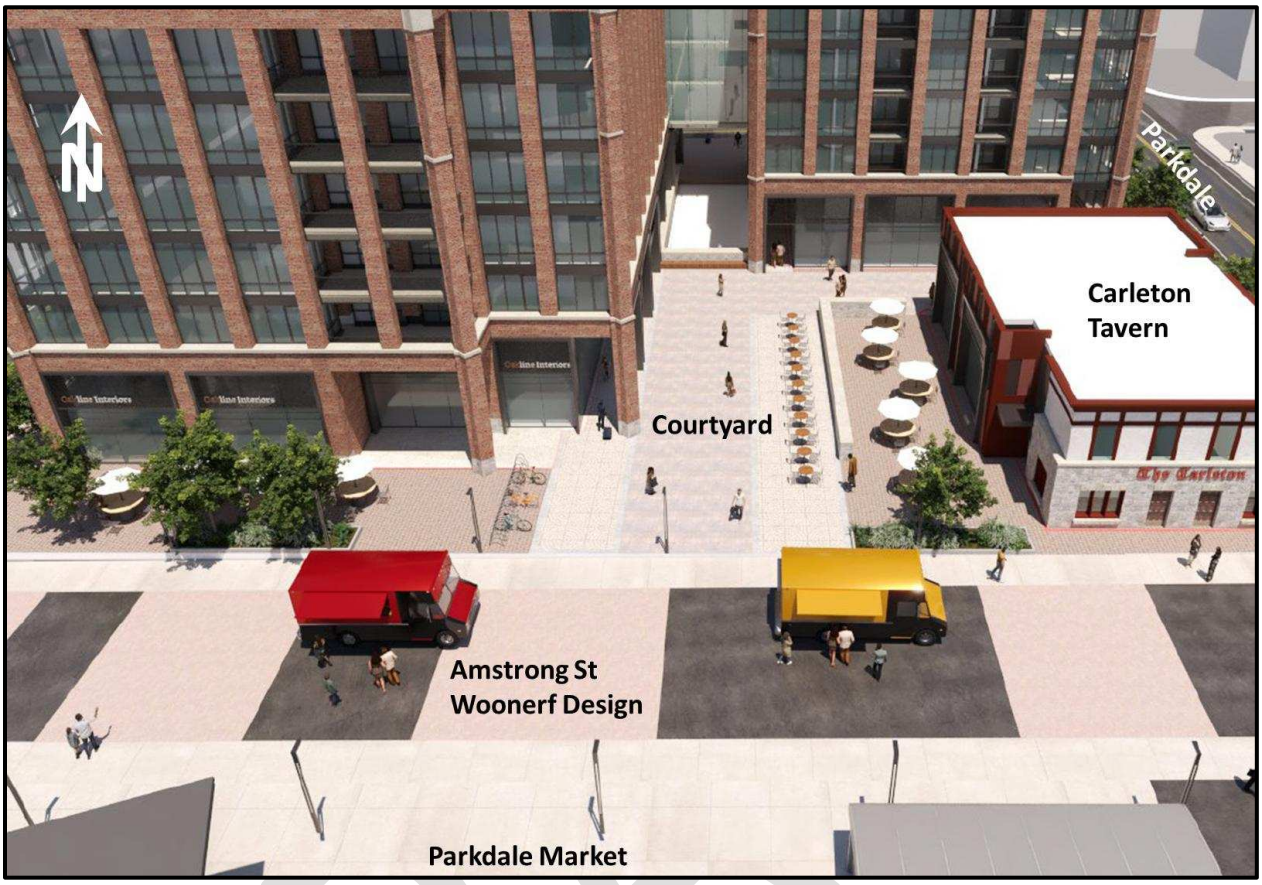
The design and timing of Armstrong Street remains to be assessed as the proposed development advances through the site plan approval stages.

The site is bound by 3 local streets which provide low volume mixed vehicle cycling opportunities to reach higher order facilities such as the off-road MUP north of Scott St, the buffered curbside bike lanes or cycle-tracks on Scott St or mixed facilities such as Holland Ave, Wellington St and Gladstone Ave. As previously mentioned, cycling improvements are proposed on Holland Ave from Scott St to Byron Ave as part of the "Cycling Projects with Prioritization" within the recently approved TMP Phase 2.

Bicycle Parking

Bicycle parking is anticipated to meet or exceed the minimum by-law. Further details will be available during Site Plan Application process.

Figure 4-1: Vision for the Central Courtyard and Armstrong St

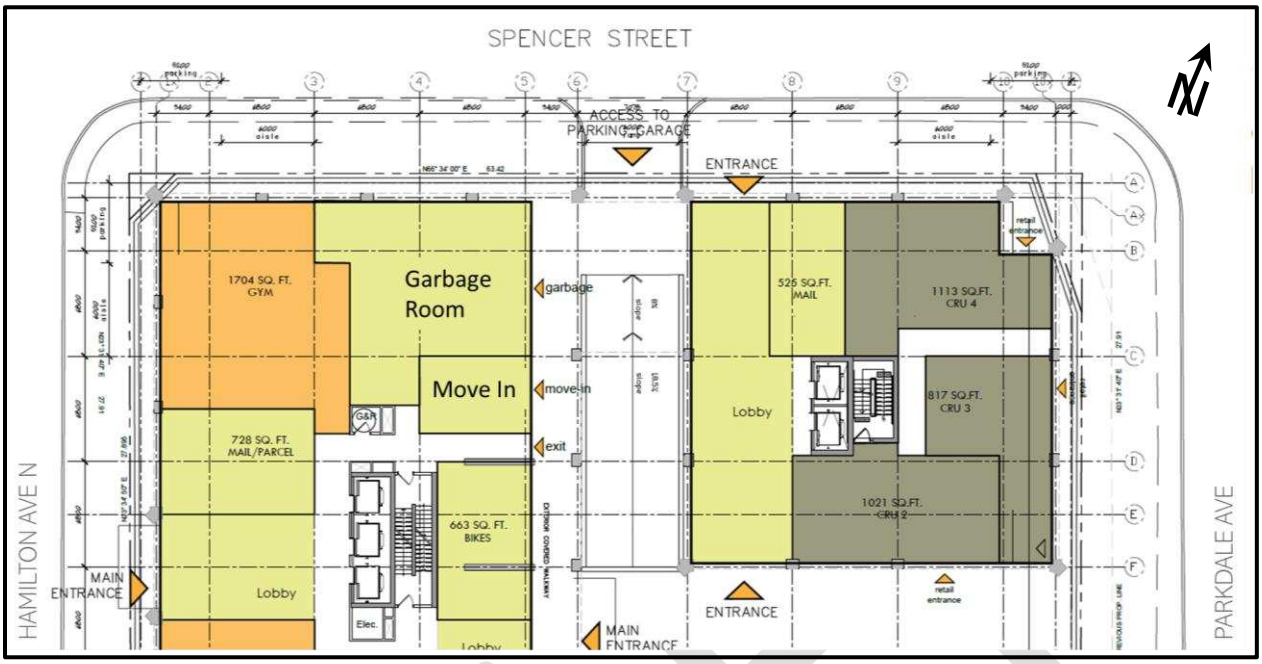


4.1.2. Circulation and Access

The site proposes a singular vehicle access to underground parking located midway between Parkdale Ave and Hamilton Ave N. The access is proposed as a two-way 6.0m wide ramp with grade transitions from flat to 8% and a maximum grade of 18.5%. Although the ramp is mostly sheltered from the elements as there is a building podium above it, there are openings from both Spencer St and the courtyard in the back, requiring the use of a heated ramp melting device and textured concrete.

A move in entrance is proposed at grade level near to the access ramp. It is understood that tenants would use curbside space on Spencer St and use the “covered exterior walkway” located just west of the vehicle ramp. Note that Spencer St is almost 11m wide which is considered very wide for a local low volume street. This wide roadway design can accommodate loading operations without disrupting vehicular operations. A dedicated room for garbage storage is proposed just west of the vehicle ramp also, where it is understood that garbage would be wheeled outside to the Spencer St curb on pick-up days. Given the small size of the lot, trucking operations such as move in and garbage collection are proposed on the Spencer St rather than internal to the site. A signage plan will be reviewed during Site Plan Application. A preliminary sketch of the proposed access on Spencer St has been provided in **Figure 21**.

Figure 4-2: Spencer St Access and Operations



4.1.3. New Streets Network

Exempt, refer to **Table 4**.

4.2. Parking

According to Part 4 – Parking, Queueing and Loading Provisions for the City of Ottawa By-Laws, the site is located in Area Z based on Schedule 1A and is within Rapid Transit Stations within Schedule 2A. Based on this, no off-street motor vehicle parking is required to be provided for residents. As per Section 102, visitor parking is required at a rate of 0.1 spaces per unit, excluding the first 12 units and with a maximum of 30 spaces per building. Based on this, the site will require a minimum of 30 visitor parking spaces.

322 vehicle parking spaces and **465 bike parking spaces** are currently proposed. The quantity of vehicle and bike parking spaces are currently being refined and will be confirmed during the Site Plan Application process.

The draft new Zoning By-Law (approved December 2025) which has not come into effect yet, indicates that the site would not require any off-street parking spaces based on its location.

Section 111 of the By-Law requires that bike parking be provided at a rate of 0.5 per unit, for a combined total requirement of 233 bike parking spaces for residents. An additional 2 bike parking spaces would be required for commercial use, at a rate of 1 per 250 m^2 for retail space. Based on the draft new Zoning By-Laws which have not come into effect yet, the site would require a minimum of 515 bike parking spaces. The current bike parking ratio provides 1 bike stall per 1 residential unit.

4.3. Boundary Street Design

The New MMLOS Tool that was approved this year was used.

4.3.1. Existing & Future Conditions

The boundary streets to the proposed development are Parkdale Ave, Spencer St, Hamilton Ave and Armstrong St.

- *Parkdale Ave:*
  - 1 vehicle travel lane in each direction
  - 2m sidewalk on both sides of road with no boulevard separation
  - More than 3,000 vehicles per day
  - Posted speed 40km/h
  - Classified as a mainstreet arterial roadway
  - Has active transit route
  - Is not part of the Crosstown Bikeway Network
- *Spencer St:*
  - 1 vehicle travel lane in each direction
  - ~1.8m sidewalk on both sides of road with no boulevard separation
  - Less than 3,000 vehicles per day
  - Posted speed 40km/h
  - Classified as local roadway
  - No active transit route
  - Is not part of the Crosstown Bikeway Network
- *Armstrong St:*
  - 1 vehicle travel lane in each direction
  - 2m or more sidewalk on both sides of road with no boulevard separation
  - Less than 3,000 vehicles per day
  - Posted speed 40km/h
  - Classified as local roadway
  - No active transit route
  - Is not part of the Crosstown Bikeway Network
- *Hamilton Ave:*
  - 1 vehicle travel lane in each direction
  - ~1.5m sidewalk on west side of road only with no boulevard separation, proposed future sidewalk along site frontgae
  - Less than 3,000 vehicles per day
  - Posted speed 40km/h
  - Classified as local roadway
  - No active transit route
  - Is not part of the Crosstown Bikeway Network

The proposed site is located within 600m of a rapid transit, not within 300m of a school and all segments are within a hub designation. Multi-modal Level of Service analysis for the subject road segments adjacent to the site is summarized in **Table** 12 with detail analysis provided in **Appendix F**. Note that the truck level of service is no longer calculated, but rather confirmed as part of the geometrics checks and truck turning templates.

Table 12: MMLOS – Boundary Street Segments Existing and Future Conditions

Road Segment	Level of Service							
	Pedestrian		Bicycle		Transit		Public Realm	
	PLoS	Target	BLoS	Target	TLoS	Target	PR	Target
Existing and Future Conditions								
Parkdale (Both Sides)	B	A	E	B	D	D	C	N/A
Spencer (Both Sides)	B	A	B	B	-	N/A	C	N/A
Armstrong (Both Sides)	B	A	C	B	-	N/A	B	N/A
Existing Only Conditions								
Hamilton (West Side)	D	A	B	B	-	N/A	C	N/A
Hamilton (East Side)	F	A	B	B	-	N/A	D	N/A
Future Only Conditions								
Hamilton (West Side)	D	A	B	B	-	N/A	C	N/A
Hamilton (East Side)	B	A	B	B	-	N/A	B	N/A

Pedestrian

None of the road segments met the desired target PLoS given the lack of boulevard separation between the road and sidewalk facilities. The road segment on Hamilton Ave fronting the site improves from PLoS 'F' to 'B' with the future proposed sidewalk.

Bicycle

The bike target BLoS was met at most locations except for Parkdale Ave and Armstrong St given their daily vehicle volume. Providing a bike lane or cycletracks would meet the target goal (based on certain combinations of facility widths and buffer from vehicle lanes).

Transit

Only Parkdale Ave has active transit routes and the TLoS targets were met.

Public Realm

Overall, the road segments varied between a level of service of 'B to D' in existing conditions and 'B to C' in future conditions, showing an overall improvement in the overall health of the street. As per the MMLOS Guideline Report, a PR score of 'B to C' is considered "very good to good performance".

4.4. Access Intersection Location

As per the new City of Ottawa TIA Guidelines revisions from June 14, 2023, this module has been compressed and former sections 4.4.2 Access Control and 4.4.3 Access Design have been moved to sections 4.9.1 and 4.9.2 respectively. This module will focus on the location of the future access intersections.

The proposed development includes a single vehicular access to an underground parking garage located mid-block on Spencer Street, between Parkdale Avenue and Hamilton Avenue North. Section 25(m)(ii) of the Private Approach By-law requires a minimum 60 m separation between a residential access serving 300 or more parking spaces and the nearest intersecting street line. The proposed access is approximately 30 m east of Hamilton Avenue North and 35 m west of Parkdale Avenue, and therefore does not meet this separation requirement. However, the proposal complies with the by-law requirements for separation between private approaches, as no other accesses are located along the south side of Spencer Street.

The site is constrained by short frontages on all sides (approximately 65 m or less), making compliance with the 60 m separation requirement technically infeasible. The access location is not anticipated to cause an undue safety concern as the proposed mid-block location on a local street provides adequate physical

separation from adjacent intersections and is not within the influence of a nearby traffic signal. In addition, despite the number of parking spaces proposed, forecast site-generated traffic volumes are low, and weekday peak-hour vehicle turnover is expected to be minimal based on TRANS trip generation and district mode share assumptions. As a result, the likelihood of vehicle spillback or operational impacts at nearby intersections is considered negligible.

In addition, the Private Approach By-Law requirements for the City of Ottawa were reviewed:

- The site is bound by the municipal road network on all four sides. All frontages are at least 60m long which permits having up to two two-way private approaches per frontage. This limit has not been exceeded and only a single access has been proposed.
- The proposed access is proposed at 6.0m wide with sufficient curb radii to accommodate turning movements. The width at the street does not exceed 9.0m wide and is therefore in conformance with minimum and maximum widths allowed for a private approach.
- The access proposes a grade that does not exceed 2% within the private property for a distance of 9.0m to the curbline, thus meeting the bylaw.
- Part m section ii for private approaches is not applicable as Spencer St is classified as a local road.
- The access will be located more than 3m from the property line.
- Clear throat checks are not required as the access is to a local street, and accesses a parking garage ramp.
- Turning lanes are not anticipated given the low forecasted vehicular volumes.
- The access is anticipated to follow the City of Ottawa Standard Detail SC7.1 for a sidewalk crossing an access driveway.

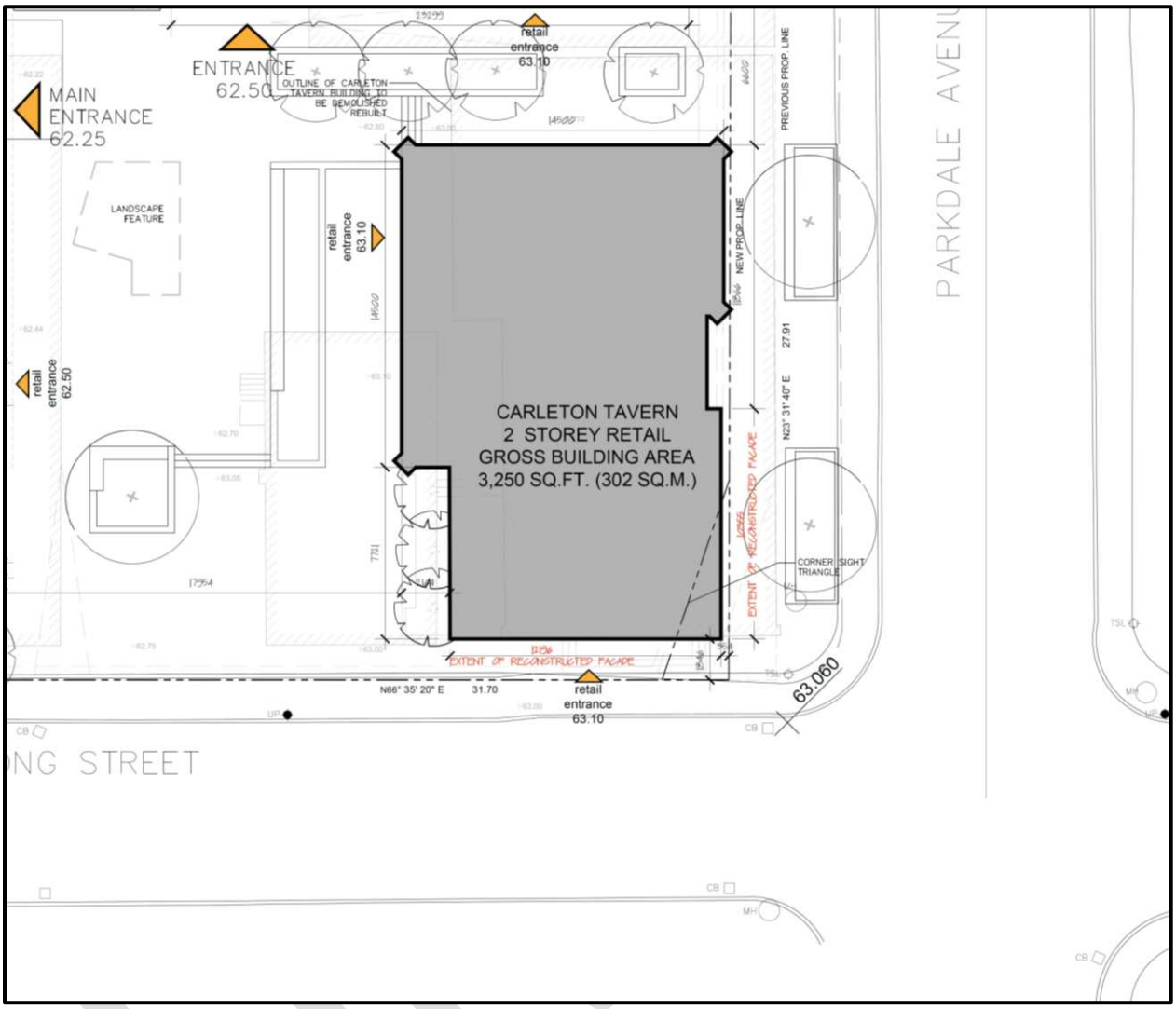
Corner Sight Triangle – Parkdale Avenue / Armstrong Street

The development requests an exemption to the corner sight triangle policy at the corner of Parkdale Avenue and Armstrong Street. The proposal intends to maintain the historical significance of The Carleton Tavern's façade on Armstrong and Parkdale. **Figure 4-3** illustrates the relocate historical Carleton Tavern (1.5m west of existing) and the proposed Parkdale ROW widening (to 22m from the east property line). The figure demonstrates the encroachment within the future arterial-to-local sight triangle. Further moving the structure compromises the internal courtyard and further affects the location of the Carleton Tavern which is important to its heritage retention.

From a transportation perspective, the encroachment is not anticipated to cause an undue safety hazard or operational concern. The relocated Carleton Tavern structure will provide additional sight lines beyond those provided today at the Parkdale/Armstrong intersection.

It should also be recognized the potential for closure of Armstrong Street at Parkdale Avenue to facilitate a future 'Woonerf' design of Armstrong Street. This would largely restrict vehicles from accessing to and from Parkdale Avenue at this location.

Figure 4-3: Corner Sight Triangle at Parkdale Avenue and Armstrong Street



4.5. Transportation Demand Management

4.5.1. Context for TDM

While the site offers commercial uses on ground floor, they are anticipated to generate negligible trips. For this reason, the trip generation as performed in **Section 3.1.1.** forecasts more people leaving the site in the morning and returning in the afternoon.

Sections 3.1.1 and **3.1.2** describe how many trips are anticipated per travel mode and anticipates the likely locations that they will travel to and from based on the OD-Survey 2011. The site is located approximately 600m walk from Tunney's Pasture LRT Station, making it a great candidate for transit-oriented travel. The development is also located near a large employment hub and cycling infrastructure that connects to downtown, making active transportation an attractive way to commute to and from work/education/shopping.

4.5.2. Need and Opportunity

With investments in rapid transit within walkable distance, plus various active transportation facilities and nearby density, shopping and employment hubs, the site has a good opportunity to levy alternate modes of transportation from personal vehicle and help reduce its environmental footprint and congestion throughout

the city. A strong focus on TDM measures to encourage sustainable active mode shares is highly recommended.

4.5.3. TDM Program

The TDM infrastructure and measures checklist has been completed as a recommended draft list given that this is a zoning by-law application and not a detailed Site Plan Application (SPA). These checklists will be revisited during SPA submission for this development. The draft measures have been provided in **Appendix G**.

Regarding the TDM Supportive Development Design and Infrastructure Checklist:

- All ten (10) Required measures related to walking and cycling (facilities and bicycle parking) and vehicle parking are anticipated to be satisfied.
- Twelve (12) of fourteen (14) Basic measures related to walking and cycling, transit, ridesharing and parking are anticipated to be satisfied or are not applicable.
- Five (5) of the of the seven (7) candidate Better measures are also proposed or are non-applicable, including:
  - Proposed 1 to 1 bike parking spaces to unit count.
  - Consideration for providing bikeshare and carshare facilities.
  - Consideration for a bike repair station.
  - Consideration for separate long-term and short-term parking areas.

Regarding the TDM Measures Checklist, the developer has indicated there is a willingness to consider the following measures:

- Six (6) out of seven (7) “basic” measures related to walking, cycling, transit, parking and TDM marketing will likely be satisfied. Three (3) of those, which have been designated by an asterisk (*), are considered by the TDM Measures to be some of the most dependably effective tools to encourage sustainable travel modes. This includes:
  - Designate an internal coordinator or contract with external coordinator.
  - Display walking and cycling information at major entrances.
  - Display transit information at major entrances.
  - *Offer preloaded PRESTO card to residents with one monthly transit pass.
  - * Unbundle parking costs from monthly rent.
  - * Provide multi-modal travel information package to new residents.
- Four (4) out of eleven (11) “better” measures related to walking, cycling, transit, parking and TDM marketing will likely be satisfied or are not applicable. This includes:
  - Contract with provider to install on-site bikeshare.
  - Contract with provider to install on-site carshare.

4.6. Neighborhood Traffic Management

4.6.1. Adjacent Neighborhoods

Exempt, refer to **Table 4**.

4.7. Transit

4.7.1. Route Capacity

Section 3.1.1 projects approximately 100 to 90 two-way transit trips for the AM and PM peak hours respectively. The site is very well supported by various transit routes, ranging from frequent bus routes to LRT and local routes. Given the various transit route options, it is hard to forecast which routes people may take. It is recommended that OC Transpo monitor transit usage and adjust their routes based on demands.

4.7.2. Transit Priority

Exempt, refer to **Table 4**.

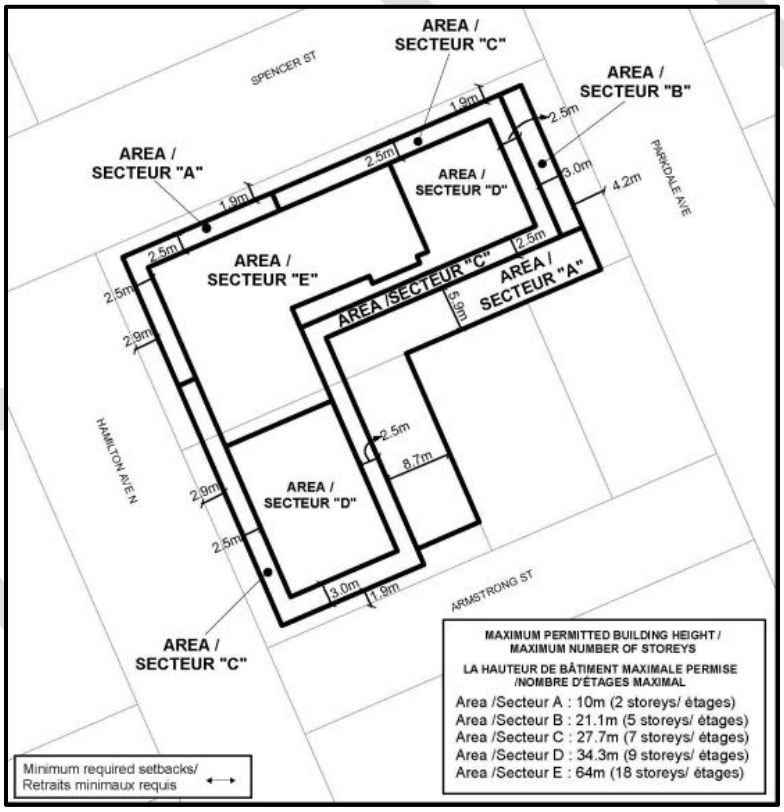
4.8. Review of Network Concept

Within the Official Plan for the City of Ottawa, the site is located in a **Protected Major Transit Station Area** (PMTSA) and within a Station Core Zone, which have targets for providing high density near these major transit hubs.

The site is currently zoned as mixed-use centre zone MC16[2063] F(6.0) S333-h and light industrial zone IL8[104] F(2.0) H13.5). As per Schedule 333[5], the site may have some areas built as high as 18-storeys as shown in **Figure 22**. A 38-storey mixed-use building is proposed, exceeding the maximum height by 20-storeys. The majority of the site is located within the MC land use which permits high-density residential uses with ground floor retail such as the proposed development.

As summarized in **Table 10**, the development will generate less than 200 peak hour person trips and therefore cannot exceed 200 trips above the equivalent volume permitted by the established zoning.

Figure 4-4: Zoning By-Law Schedule 333



Nonetheless, given the site's context, within walking and biking distance to major destinations such as employment hubs, shopping, schools, etc. and also being within 600m walk to a major LRT transit station, then this development is a good candidate for higher density than existing zoning. The scale of this development is considered adequate and aligns with City of Ottawa's long-term planning vision.

[5] https://documents.ottawa.ca/sites/default/files/schedule333_zbl_en.pdf

4.9. Intersection Design

4.9.1. Intersection Control

Exempt, refer to **Table 4**.

5.0 FINDINGS AND RECOMMENDATIONS

Based on the results summarized herein the following findings and recommendations are provided:

Existing Conditions

- The site is currently occupied by low-rise commercial uses.
- The site is located within a Design Priority Area (DPA), a hub designated area and Protected Major Transit Station Area (PMTSA).
- The site is located less than 600m walk from Tunney's Pasture LRT Station and major bus transit connection hub. Tunney's Pasture Station currently provides service to 11 frequent bus routes, 12 local routes, 9 connexion routes and 1 STO (Quebec) route. A bus stop is also located adjacent to the site which serves a local and frequent transit route.
- A review of historic collision patterns within the study area revealed that there is a higher incident of collisions with cyclists along Parkdale Ave. Today, dedicated cycling facilities are not available for north-south travel within the study area. As per the Transportation Master Plan, new facilities are anticipated on Holland Ave within the priority network. The implementation of these facilities will fill a gap in the cycling network and is expected to reduce the likelihood of cyclists being hit within the study area.

Proposed Development

- Taggart is proposing a mixed-use development consisting of an L shaped building with a general 6 to 8-storey podium along Spencer St and Hamilton Ave N, with a 38-storey tower facing Hamilton Ave N. The inside of the L will be reserved as a public courtyard with the Carleton Tavern pub reconstructed as a heritage standalone building along the corner of Parkdale Ave and Armstrong St.
- There is an opportunity to convert Armstrong St to a "Woonerf Street" that would integrate the Parkdale Market with the proposed site, providing a seamlessly space which focuses on active transportation priority. This would involve closing the west leg of the Parkdale/Armstrong Street intersection, and investing in the public realm along Armstrong Street. The site will also provide pedestrian permeability to and from Spencer St, Parkdale Ave and Armstrong St. The site transportation access would be unaffected by this closure.
- The new development will provide approximately 465 residential units, 5,643 ft^2 of ground floor commercial placed towards Parkdale Ave and Armstrong St and will reconstruct the Carleton Tavern. The earliest buildout year assumed is 2028 for the purposes of this transportation assessment.
- The trip generation for the site forecasts approximately 30 'new' two-way vehicle trips, 100 to 90 'new' two-way transit trips, 40 to 50 'new' two-way walking trips and 20 'new' two-way cycling trips. Based on the low forecasted vehicle trip generation, then traffic analysis has been exempt based on the TIA Guidelines.
- The City of Ottawa's new Transportation Master Plan that was approved in July of 2025. Within the TMP, new cycling facilities on Holland Ave from Scott St to Byron Ave were identified as first phase priority. The transit "needs based" and "priority" networks also illustrate Holland Ave and Wellington St as transit priority corridors. There were no pedestrian or road network improvements proposed.
- The site will rely on Spencer St to support truck operations such as garbage pick-up and move-ins. While details are not available at this time, it is noted that Spencer St has an approximate 11m wide paved roadway which could accommodate dedicated loading areas without impeding the low traffic operations on this local street. Further details will be provided during Site Plan Application.

- 322 vehicle parking spaces are currently proposed (to be refined), while bike parking spaces are proposed at a 1-to-1 unit to bike space (465). Bike parking will predominantly be provided indoors in secured areas. Further details will be provided during Site Plan Application.
- Based on the number of vehicle parking spaces envisioned, then the proposed two-way access to the underground parking garage would not meet the Private Approach By-Laws due to the required separation to the nearest intersecting street line (60m separation). Given the access context, and that it maximizes its separation to adjacent streets, its proposed location is anticipated to not have an undue safety or operational concerns.
- The application requests an exemption to the corner sight triangle policy at the corner of Parkdale Avenue/ Armstrong Street to facilitate the relocation of the historical Carleton Tavern. Given that the relocation provides additional sight distance above and beyond that available today, the encroachment is not anticipated to cause any undue safety or operational concerns.
- TDM measures are highly encouraged for the site, including but not limited to unbundled car parking from monthly rent, shared commercial/residential visitor parking provisions, providing bike share and car share facilities, etc. TDM measures will be confirmed during Site Plan Application.

Future Conditions

- The MMLOS road segment analysis showed that none of the pedestrian target level of service were met due to lack of boulevard separation, however, the site is proposing a new sidewalk on Hamilton Ave N, significantly improving pedestrian LoS. The bicycle and transit targets were all met or not applicable.
- The proposed development adheres with the goals noted within the Wellington St West CDP, particularly providing publicly accessible paths through private developments. The proposed development will provide a public courtyard which provides permeability to and from Spencer St, Parkdale Ave and Armstrong St. The client also intends to convert Armstrong St into a Woonerf Design road which would emphasize pedestrian priority while seamlessly integrating the Parkdale Market to the courtyard and heritage Carleton Tavern building.

Based on the preceding report, the proposed Taggart development located at 340 Parkdale Ave is recommended from a transportation perspective.

Prepared By:

Juan Lavin, P. Eng.
Transportation Engineer

Reviewed By:

Jake Berube, P.Eng. RSP1
Senior Transportation Engineer

Appendix A:

TIA Screening Form and Site Plan

PARSONS

Office: +1 613.738.4160
1223 Michael Street, Suite 100|Ottawa, ON K1J 7T2

City of Ottawa 2017 TIA Guidelines

TIA Screening Form

Date	20-Dec-25
Project	340 Parkdale Ave
Project Number	479049 - 01000

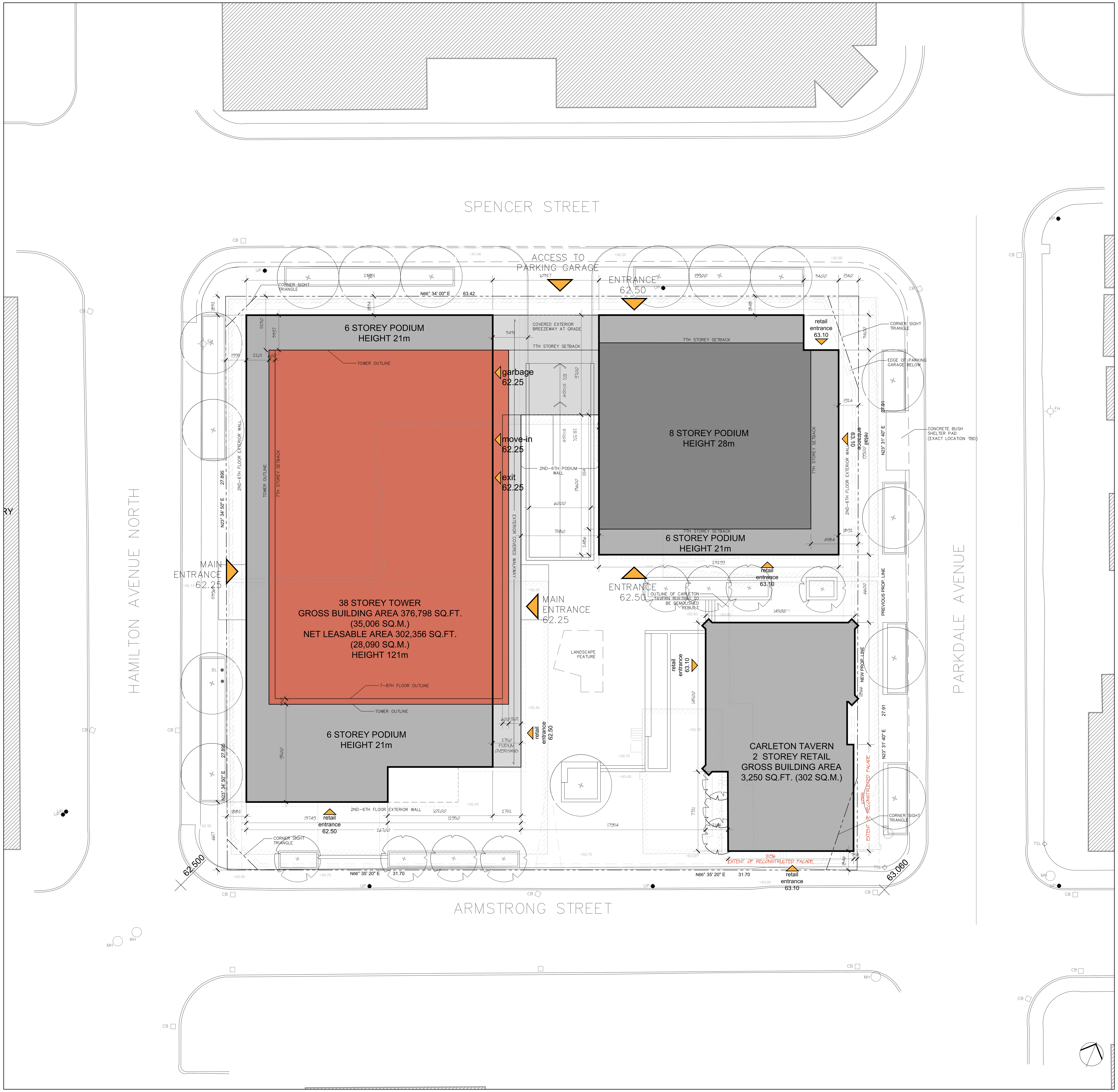
Results of Screening	Yes/No
Development Satisfies the Trip Generation Trigger	Yes
Development Satisfies the Location Trigger	Yes
Development Satisfies the Safety Trigger	No

Module 1.1 - Description of Proposed Development	
Municipal Address	340 Parkdale Ave (233, 229, 223 Armstrong, 3 Hamilton)
Description of location	The site is bound by Armstrong St to the south, Hamilton Ave N to the west Spencer St to the north and Parkdale Ave to the east. The site is currently occupied by low rise retail.
Land Use	Proposed mixed-use including ground floor small retail and high-density residential units. Currently zoned MC16[2063] F(6.0) S333-h and IL8[104] F(2.0) H13.5)
Development Size	Approximately 465 units and 5,525 sq.ft. ground floor commercial plus the retention of existing Carleton Tavern.
Number of Accesses and Locations	One access to Spencer St
Development Phasing	Sinle phase
Buildout Year	2030
Sketch Plan / Site Plan	See attached

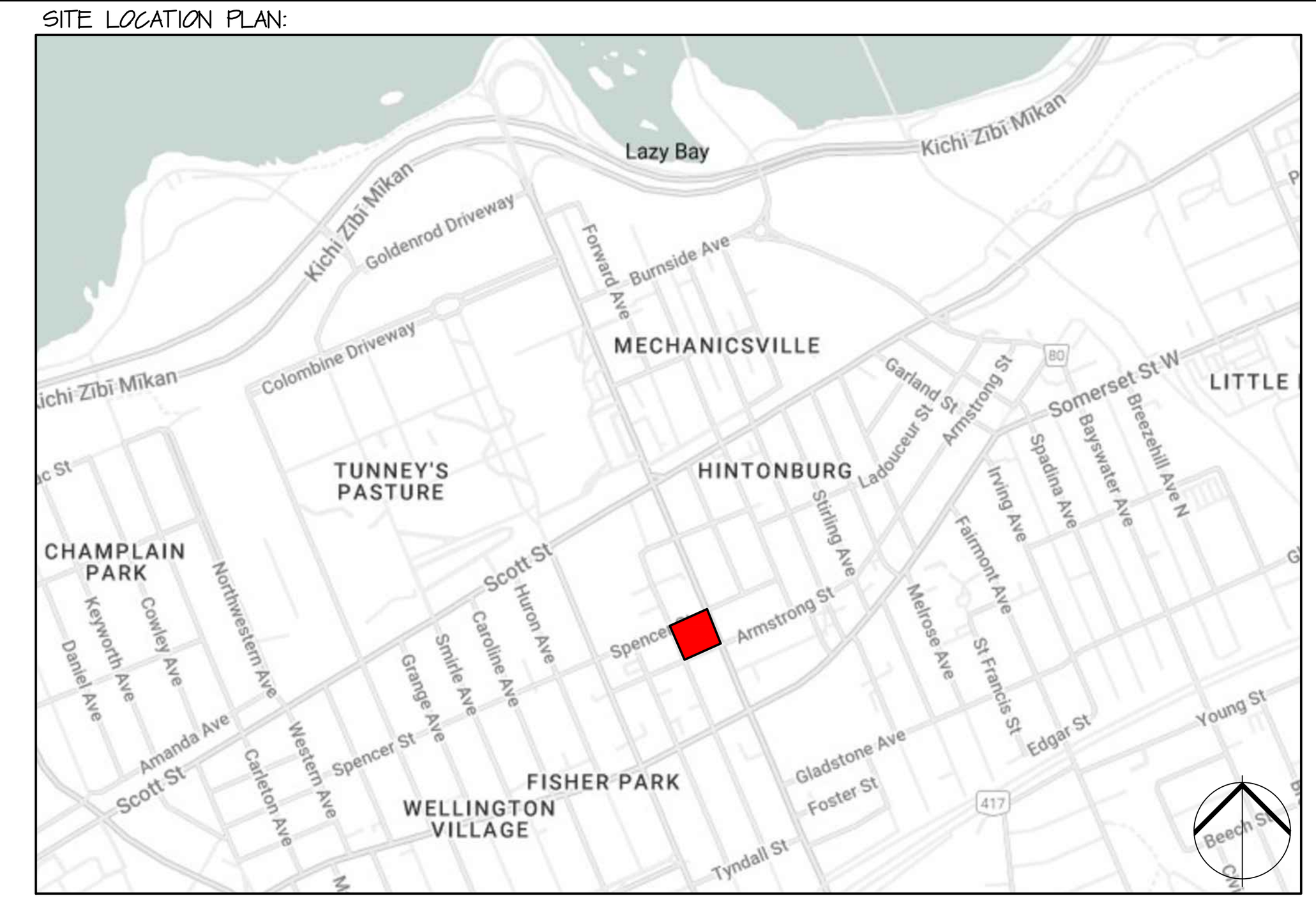
Module 1.2 - Trip Generation Trigger		
Land Use Type	Townhomes or Apartments	
Development Size	465	Units
Trip Generation Trigger Met?	Yes	

Module 1.3 - Location Triggers		
Development Proposes a new driveway to a boundary street that is designated as part of the City's Transit Priority, Rapid Transit, or Spine Bicycle Networks (See Sheet 3)	No	
Development is in a Design Priority Area (DPA) or Transit-oriented Development (TOD) zone. (See Sheet 3)	Yes	Site is within a DPA area and TOD area (Tunney's Pasture LRT Station)
Location Trigger Met?	Yes	

Module 1.4 - Safety Triggers		
Posted Speed Limit on any boundary road	<80	km/h
Horizontal / Vertical Curvature on a boundary street limits sight lines at a proposed driveway	No	
A proposed driveway is within the area of influence of an adjacent traffic signal or roundabout (i.e. within 300 m of intersection in rural conditions, or within 150 m of intersection in urban/ suburban conditions) or within auxiliary lanes of an intersection;	No	
A proposed driveway makes use of an existing median break that serves an existing site	No	
There is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development	No	
The development includes a drive-thru facility	No	
Safety Trigger Met?	No	



SITE LOCATION PLAN:



ZONING NOTES

CURRENT ZONING: MC16 [2063] F(6.0) S333-h & IL8 [104] F(2.0) H(13.5)

LOT AREA : 3,538 m^2

DEVELOPMENT STATS

	PROPOSED
LOT WIDTH	61.54m
LOT DEPTH	55.7m
UNITS	
TOTAL UNITS	465
PARKDALE SETBACK	VARIES MINIMUM 0.3m
ARMSTRONG SETBACK	VARIES MINIMUM 1.8m
HAMILTON SETBACK	1.8m
SPENCER SETBACK	1.8m
BUILDING HEIGHTS	
6 storey podium	21 m
38 STOREY TOWER	+/-121 m
BUILDING AREA	
TOTAL GROSS	+/-376,798 sq.f.t. (35,005 sq.m.)
TOTAL NET (RESIDENTIAL + COMMERCIAL/RETAIL)	+/-302,356 sq.f.t (28,089 sq.m.)
GROSS FLOOR AREA (city def.)	TBD

NOTE: ALL EXISTING SITE INFORMATION AS PER SITE SURVEY PLAN DATED JANUARY 16, 2024 AND PREPARED BY STANTEC GEOMATICS LTD

UNIT RATIOS

	PROPOSED	
TOTAL UNIT COUNT		465
STUDIOS	71	15%
1 BEDROOM	236	51%
2 BEDROOM	153	33%
2 BEDROOM	5	1%

AMENITY SPACE REQUIREMENTS: 6 m^2 REQUIRED PER UNIT
(527 X 6 SQ.M. = 3,162 SQ.M. REQUIRED TO BE AMENITY SPACE)
(1,581 SQ.M. REQUIRED TO BE COMMON AMENITY SPACE)

PROVIDED AMENITY SPACE
TOTAL AMENITY AREA: TBD TOTAL COMMUNAL AMENITY AREA: TBD EXTERIOR, TBD INTERIOR TOTAL PRIVATE AMENITY AREA: TBD

VEHICLE PARKING

RESIDENTIAL
REQUIRED: 0 PROVIDED: 302 (0.57/unit)
VISITOR
REQUIRED: 30 PROVIDED: 53 (0.1/unit)
COMMERCIAL
REQUIRED: TBD PROVIDED: TBD

BICYCLE PARKING

REQUIRED: 0.5*465 = 233
PROVIDED: 233
LOCATION: UNDERGROUND PARKING GARAGE AND GROUND FLOOR (INTERIOR)

0 5 10 15 20

LEGEND:

	EXISTING BUILDING
	FIRE ROUTE
MH	EXISTING MAN HOLE
TSP	EXISTING TRAFFIC LIGHT
FH	CONC. CURB DETAIL. TO CITY OF OTTAWA STANDARDS / EXISTING FIRE HYDRANT
BP	BIKE PARKING SPACE
BL	EXISTING BOLLARD
TSL	EXISTING TRAFFIC SIGNAL LIGHT
UP	EXISTING UTILITY POLE
CB	EXISTING CATCH BASIN
CB	PROPOSED CATCH BASIN
AS	SIGNAGE FOR ACCESSIBLE PARKING SPACE
FRS	SIGNAGE FOR FIRE ROUTE ACCESS
S	EXISTING SIGN
	EXISTING LIGHT POLE
	NEW LIGHT POLE
	PROPOSED WALL MOUNTED LIGHT
SL	EXISTING STREET LIGHTING BOX
TB	EXISTING TRAFFIC SIGNAL BOX

TAGGART REALTY MANAGEMENT

PROJECT TEAM

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HOBIN ARCHITECTURE
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SURVEYOR
STANTECT GEOMATICS
BRIAN WEBSTER
brian.webster@stantec.com

no.	date	revision
2	25-12-19	ISSUED FOR ZBA
1	24-12-03	ISSUED FOR PRECONSULTATION

It is the responsibility of the appropriate contractor to check and verify all dimensions on site and report all errors and/or omissions to the architect.

All contractors must comply with all pertinent codes and by-laws.

Do not scale drawings.

This drawing may not be used for construction until signed.

Hobin Architecture Incorporated
63 Pamilla Street
Ottawa, Ontario
Canada K1S 3K7
T: 613-238-7200
F: 613-235-2005
E: mail@hobinarc.com
hobinarc.com
HOBIN ARCHITECTURE

PROJECT/LOCATION:
340 PARKDALE
OTTAWA ON.

DRAWING TITLE:
SITE PLAN

DRAWN BY:	DATE:	SCALE:
PB	25-12-19	1:150

PROJECT: 2409

DRAWING NO.: A100

REVISION NO.:

ONTARIO ASSOCIATION OF ARCHITECTS
BARRY J. HOBIN
LICENCE 3049

None
2409

GROUND

GROSS : 20,801 sq.ft

NET : 8,777 sq.ft.

SPENCER STREET
ARMSTRONG STREET
HAMILTON AVENUE NORTH
PARKDALE AVENUE
EXISTING SINGLE STORY BUILDING
ACCESS TO PARKING GARAGE
ENTRANCE 62.50
1704 SQ. FT. GYM
1511 SQ. FT. GARBAGE
388 SQ. FT. MOVE IN
728 SQ. FT. MAIL/PARCEL
663 SQ. FT. BIKES
Lobby
1356 SQ. FT. LOUNGE
1510 SQ. FT. CRU 6
1182 SQ. FT. CRU 5
garbage 62.25
move-in 62.25
exit 62.25
MAIN ENTRANCE 62.25
EXTERIOR COVERED WALKWAY
525 SQ.FT. MAIL
1113 SQ.FT. CRU 4
817 SQ.FT. CRU 3
1021 SQ.FT. CRU 2
3249 SQ.FT. CRU 1 CARLETON TAVERN
retail entrance 63.10
retail entrance 62.50
Elec.
G&R

340 PARKDALE

HOBIN

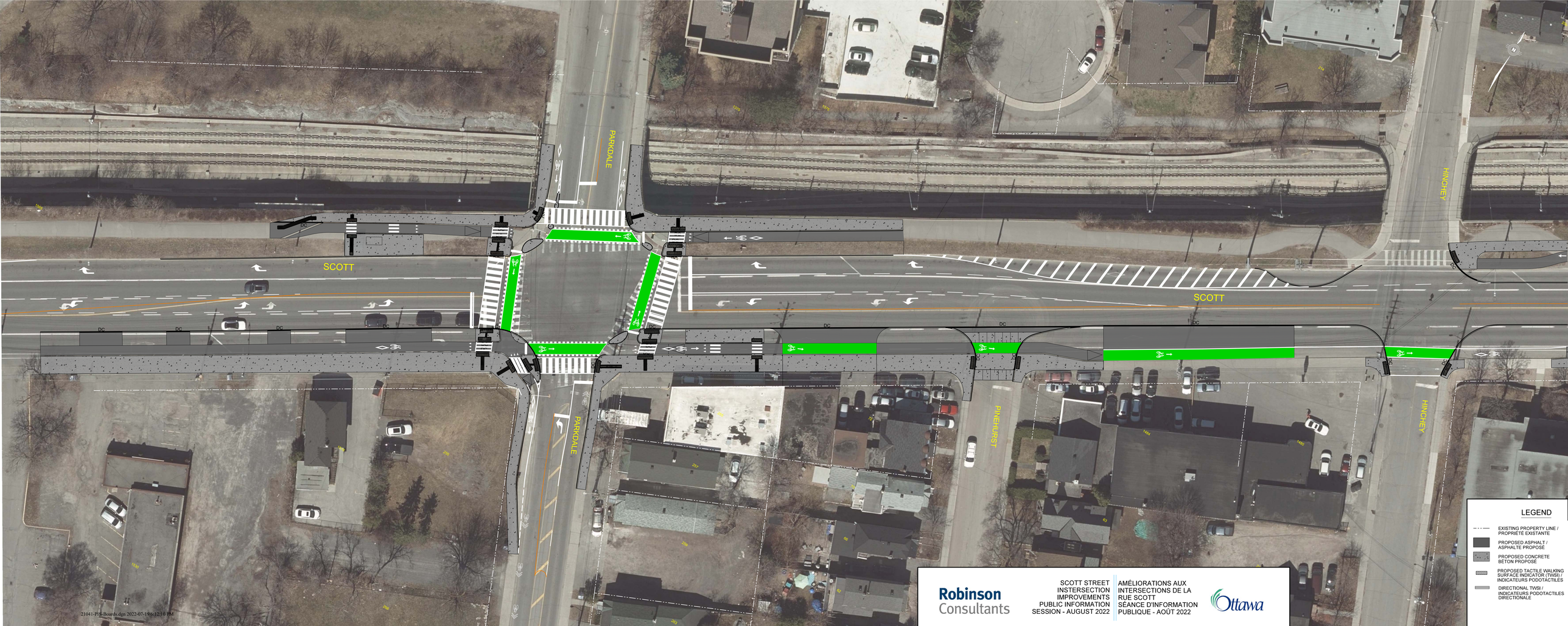
GROUND LEVEL FLOOR PLAN

SCALE 1:300

2025.12.19

Appendix B:

Scott St Road Improvements



Robinson Consultants

SCOTT STREET INTERSECTION IMPROVEMENTS
PUBLIC INFORMATION SESSION - AUGUST 2022

AMÉLIORATIONS AUX INTERSECTIONS DE LA RUE SCOTT
SÉANCE D'INFORMATION PUBLIQUE - AOÛT 2022

Ottawa

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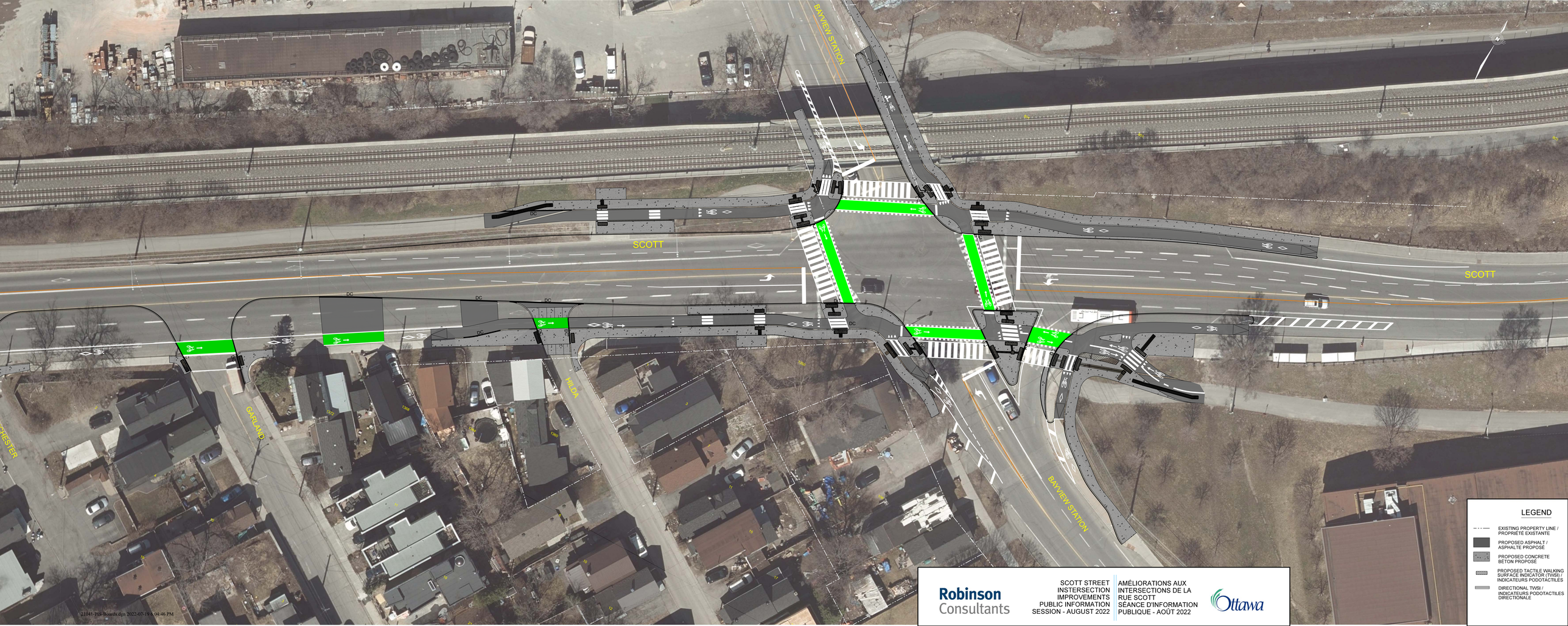
CARRUTHERS
SCOTT
SCOTT
STIRLING
PINHEY
MERTON
MANCHESTER
CARRUTHERS
LEGEND
EXISTING PROPERTY LINE / PROPRIÉTÉ EXISTANTE
PROPOSED ASPHALT / ASPHALTE PROPOSÉ
PROPOSED CONCRETE BÉTON PROPOSÉ
PROPOSED TACTILE WALKING SURFACE INDICATOR (TWSI) / INDICATEURS PODOTACTILES
DIRECTIONAL TWSI / INDICATEURS PODOTACTILES DIRECTIONALE
Robinson Consultants
SCOTT STREET INSTERSECTION IMPROVEMENTS PUBLIC INFORMATION SESSION - AUGUST 2022
AMÉLIORATIONS AUX INTERSECTIONS DE LA RUE SCOTT SÉANCE D'INFORMATION PUBLIQUE - AOÛT 2022
Ottawa



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SCOTT STREET INSTERSECTION IMPROVEMENTS
PUBLIC INFORMATION SESSION - AUGUST 2022

AMÉLIORATIONS AUX INTERSECTIONS DE LA RUE SCOTT
SÉANCE D'INFORMATION PUBLIQUE - AOÛT 2022

Ottawa

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Appendix C:

Existing Peak Hour Volumes

Transportation Services - Traffic Services

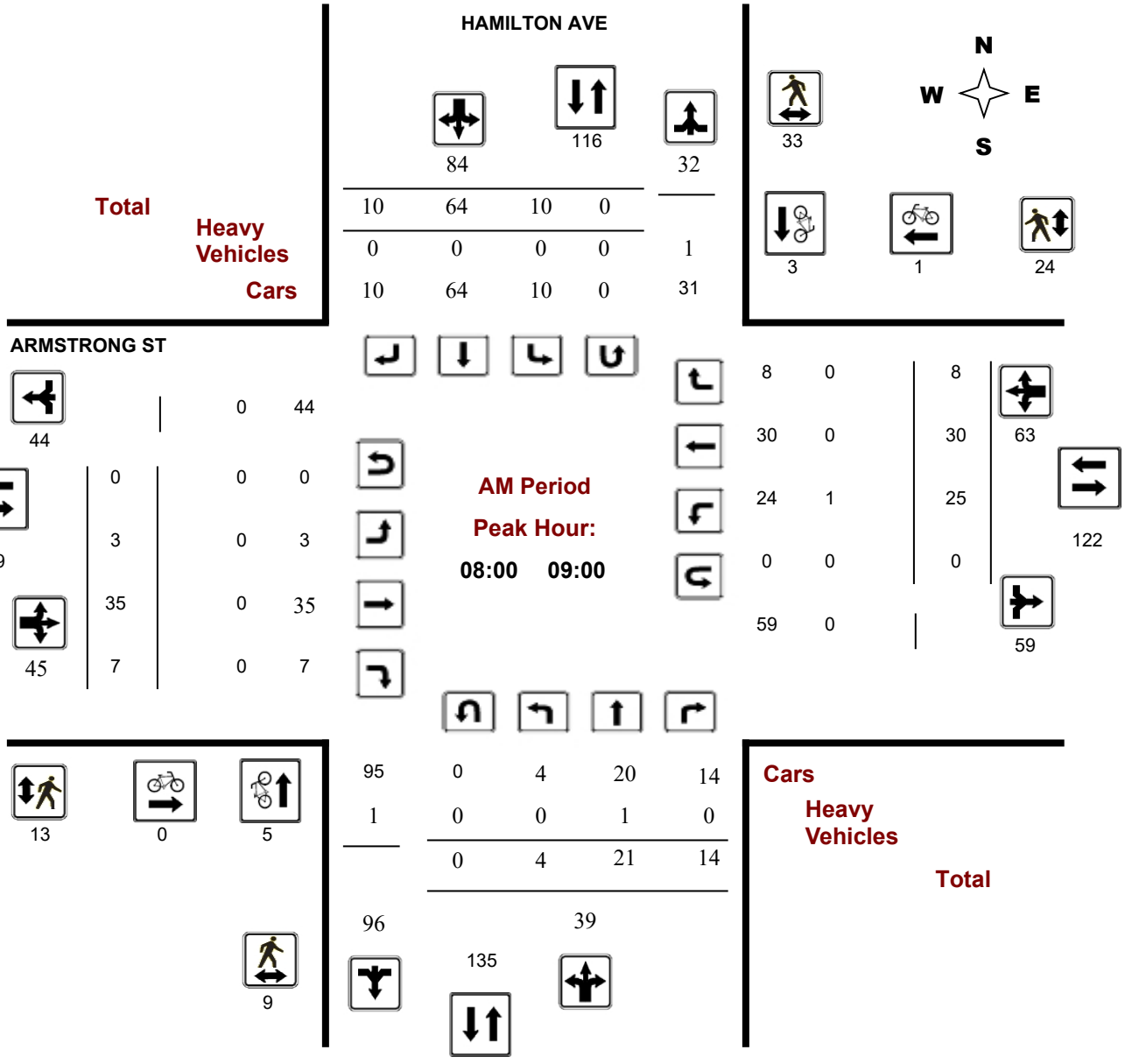
Turning Movement Count - Study Results

ARMSTRONG ST @ HAMILTON AVE

Survey Date: Wednesday, April 24, 2024 **WO No:** 41739

Start Time: 07:00 **Device:** Miovision

AM Period Peak Hour Diagram



Transportation Services - Traffic Services

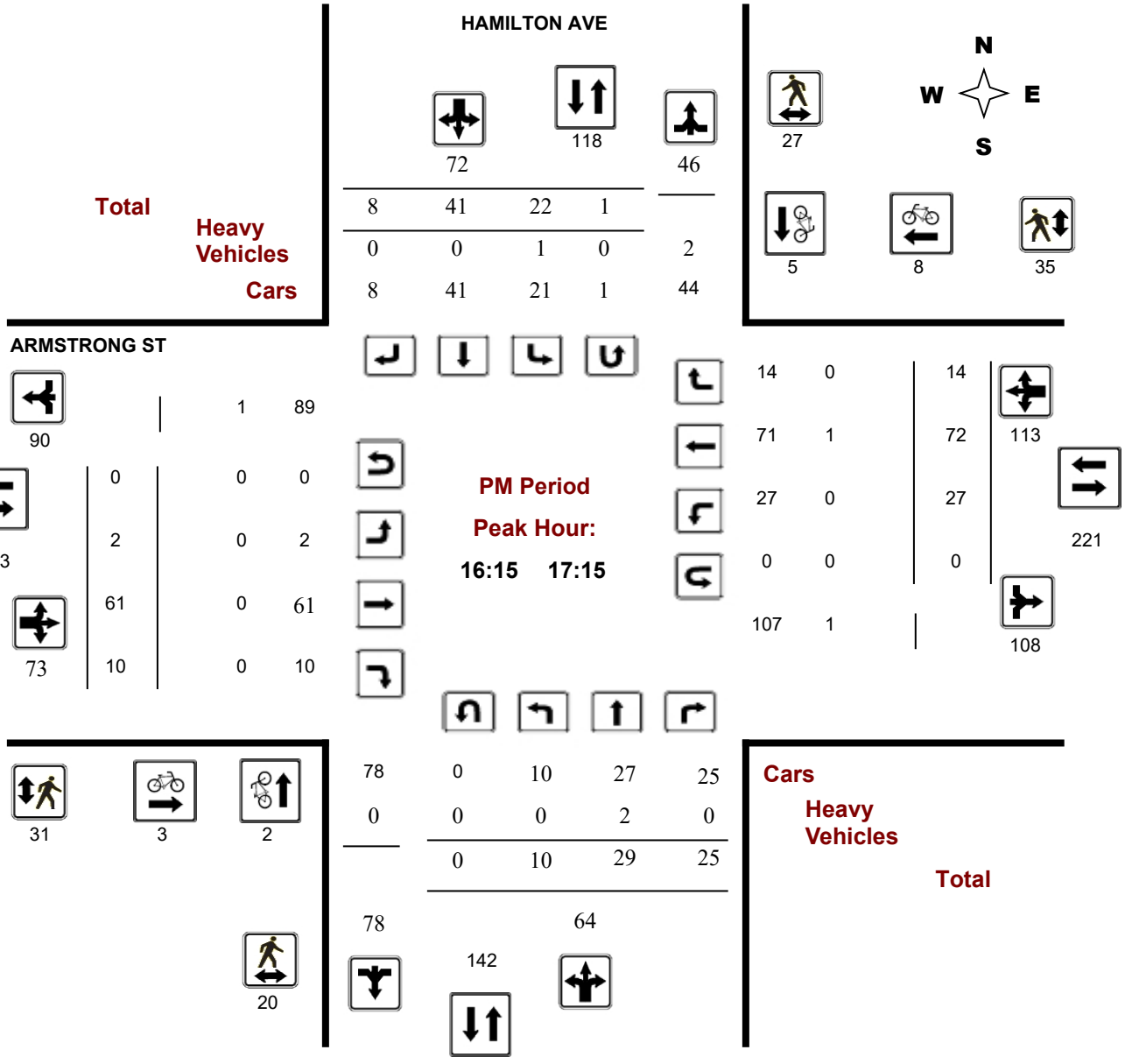
Turning Movement Count - Study Results

ARMSTRONG ST @ HAMILTON AVE

Survey Date: Wednesday, April 24, 2024 **WO No:** 41739

Start Time: 07:00 **Device:** Miovision

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

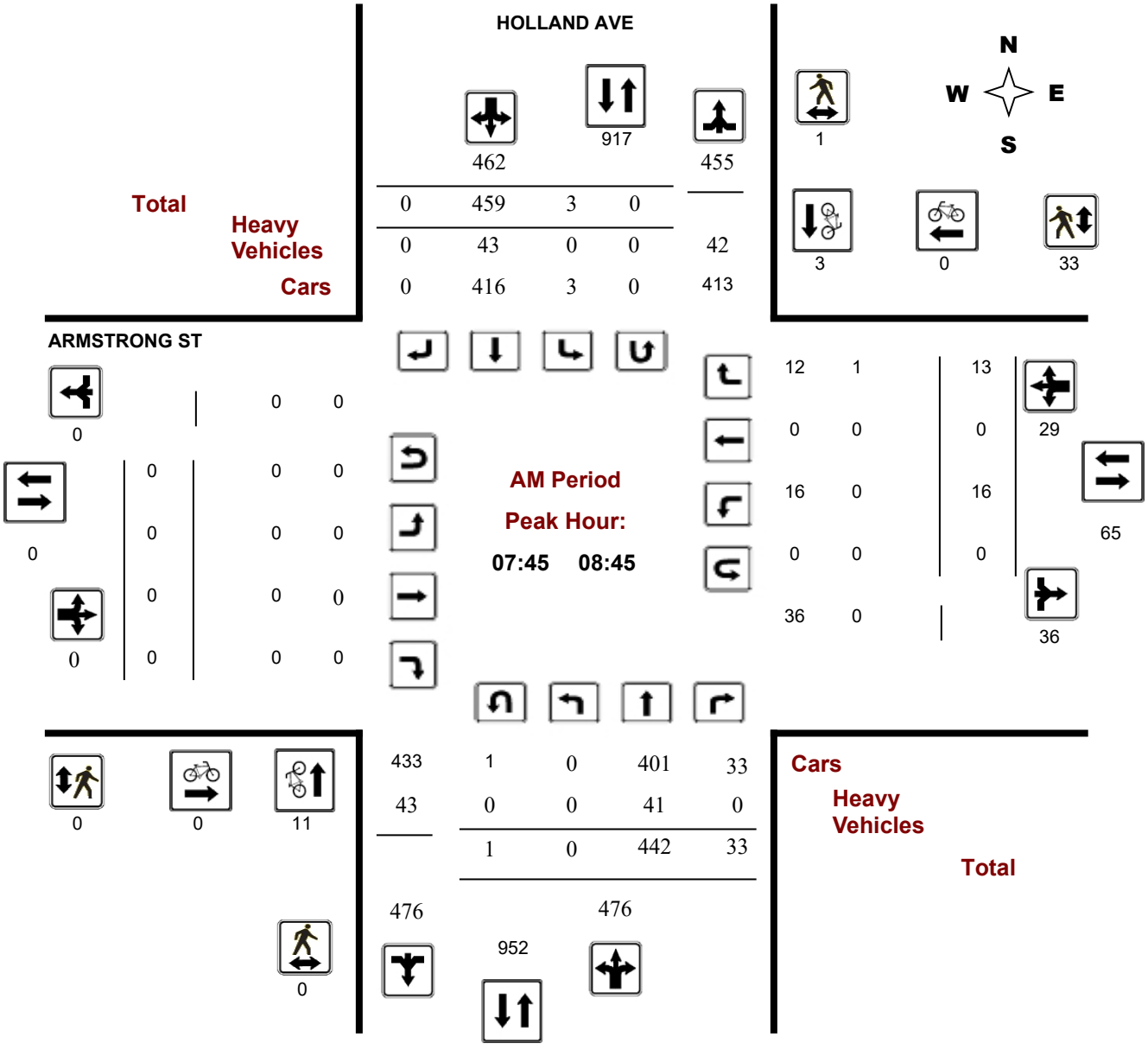
Turning Movement Count - Study Results

ARMSTRONG ST @ HOLLAND AVE

Survey Date: Wednesday, May 01, 2024 **WO No:** 41741

Start Time: 07:00 **Device:** Miovision

AM Period Peak Hour Diagram



Transportation Services - Traffic Services

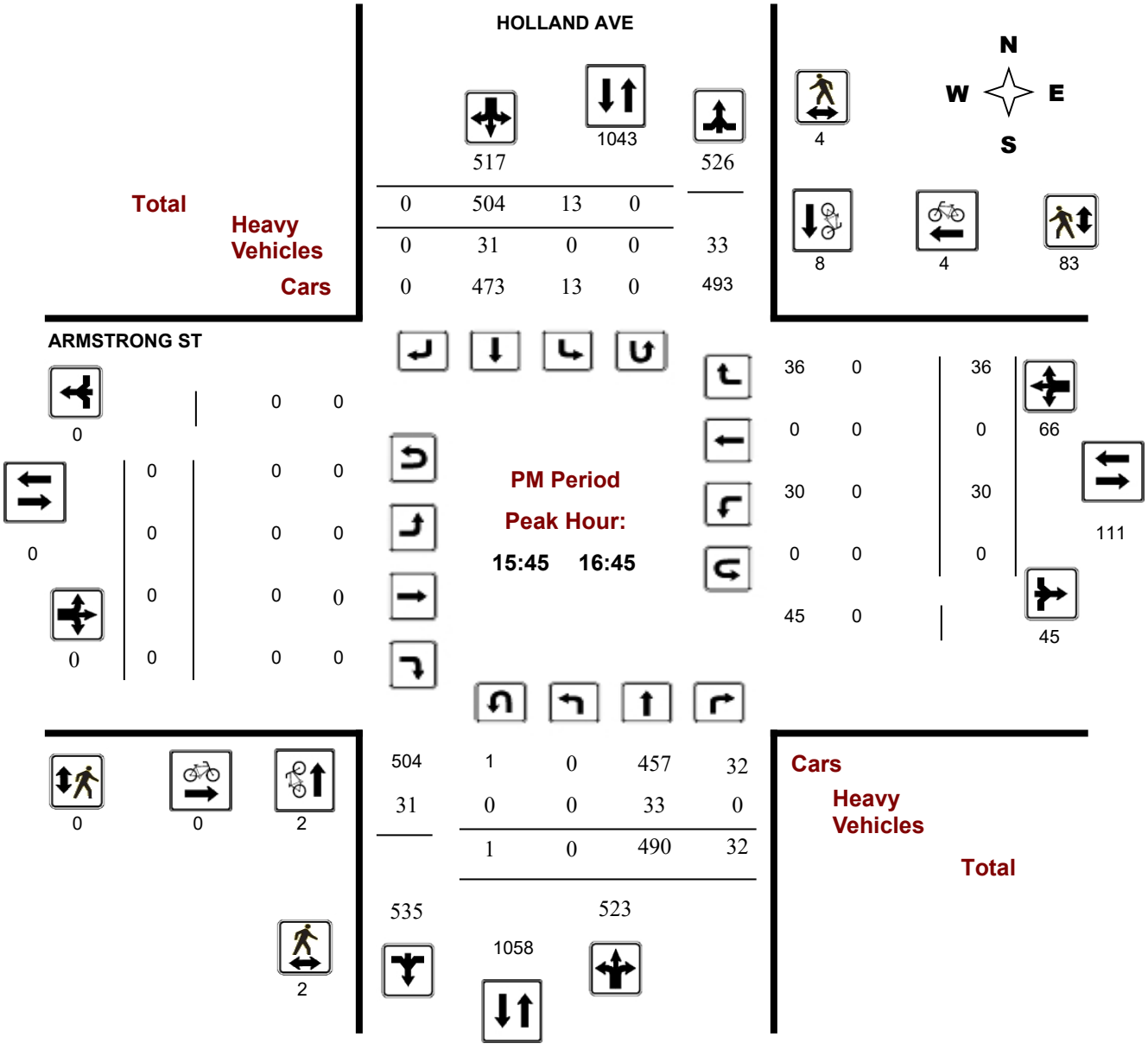
Turning Movement Count - Study Results

ARMSTRONG ST @ HOLLAND AVE

Survey Date: Wednesday, May 01, 2024 **WO No:** 41741

Start Time: 07:00 **Device:** Miovision

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

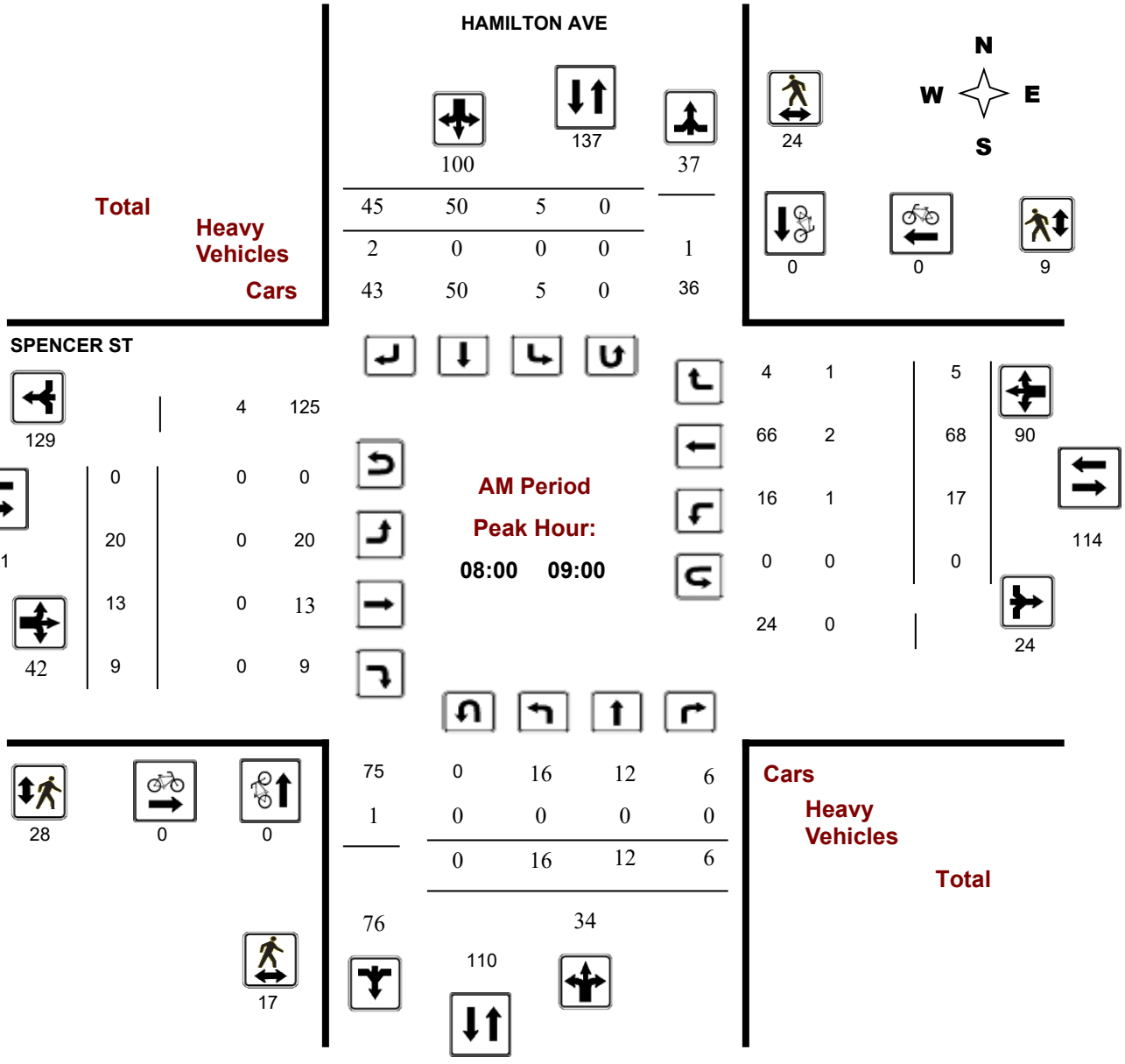
Turning Movement Count - Study Results

HAMILTON AVE @ SPENCER ST

Survey Date: Wednesday, November 23, 2016 **WO No:** 36535

Start Time: 07:00 **Device:** Miovision

AM Period Peak Hour Diagram



Transportation Services - Traffic Services

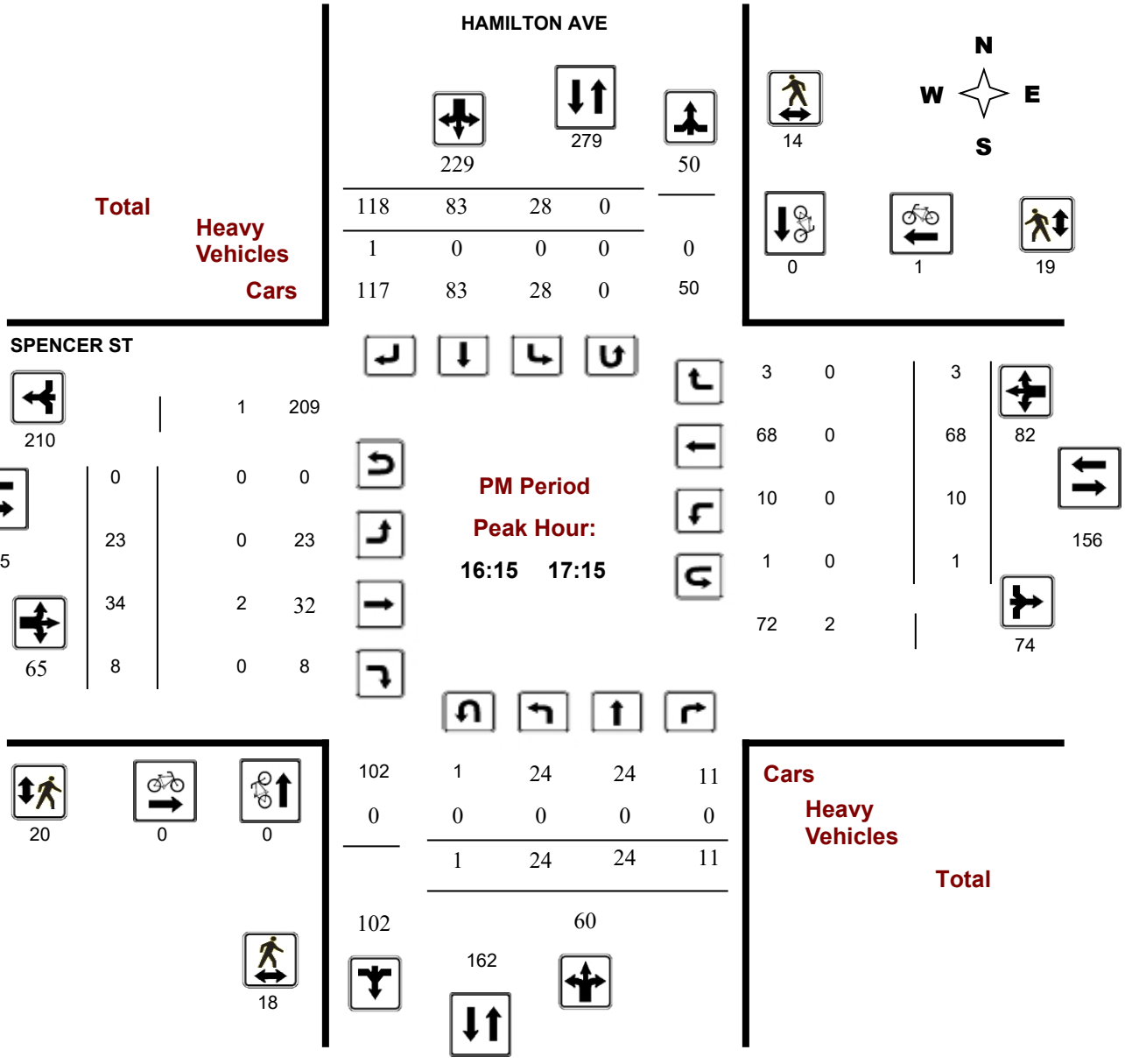
Turning Movement Count - Study Results

HAMILTON AVE @ SPENCER ST

Survey Date: Wednesday, November 23, 2016 **WO No:** 36535

Start Time: 07:00 **Device:** Miovision

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

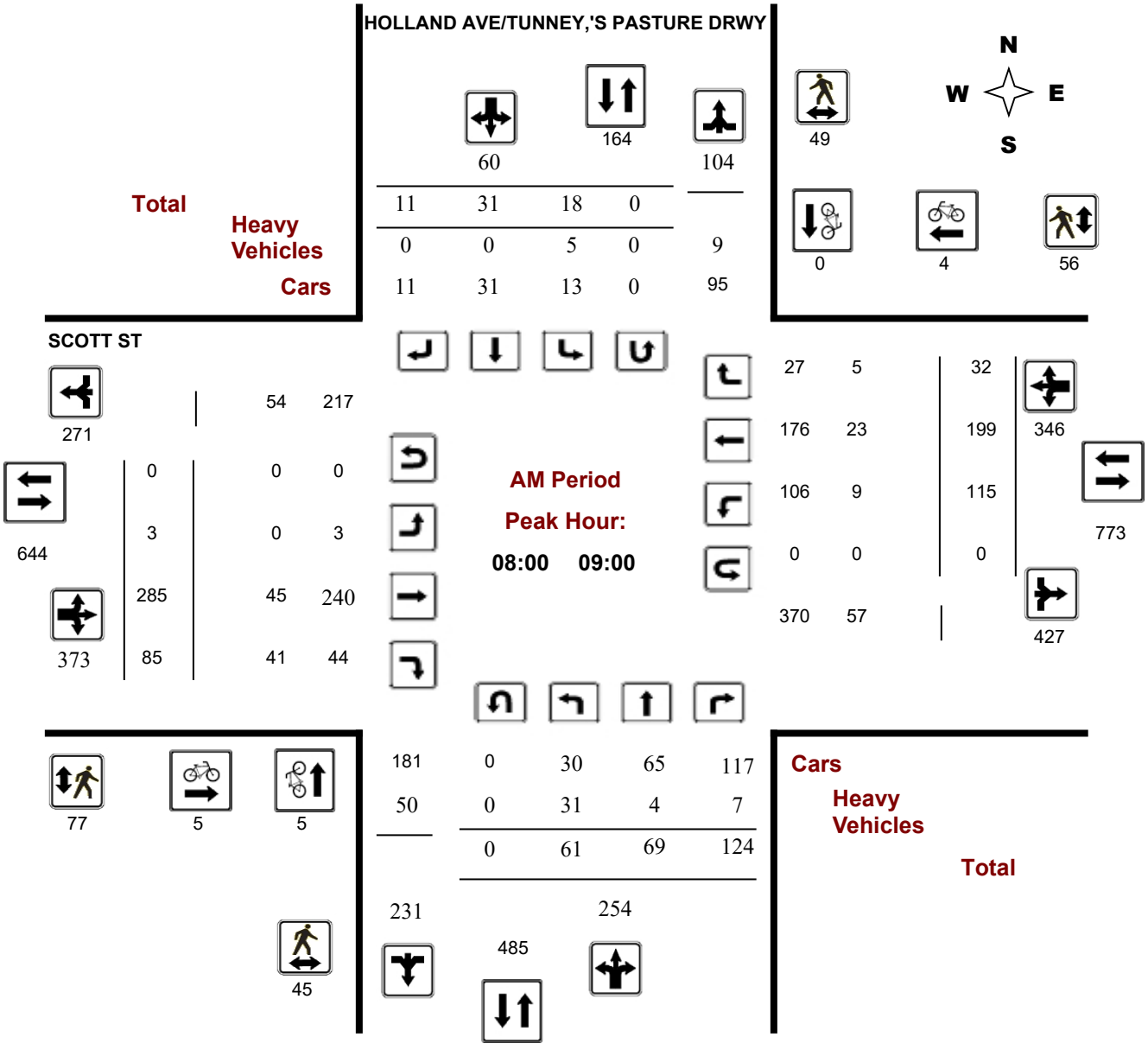
Turning Movement Count - Study Results

HOLLAND AVE/TUNNEY'S PASTURE DRWY @ SCOTT ST

Survey Date: Thursday, December 02, 2021 **WO No:** 40000

Start Time: 07:00 **Device:** Miovision

AM Period Peak Hour Diagram



Transportation Services - Traffic Services

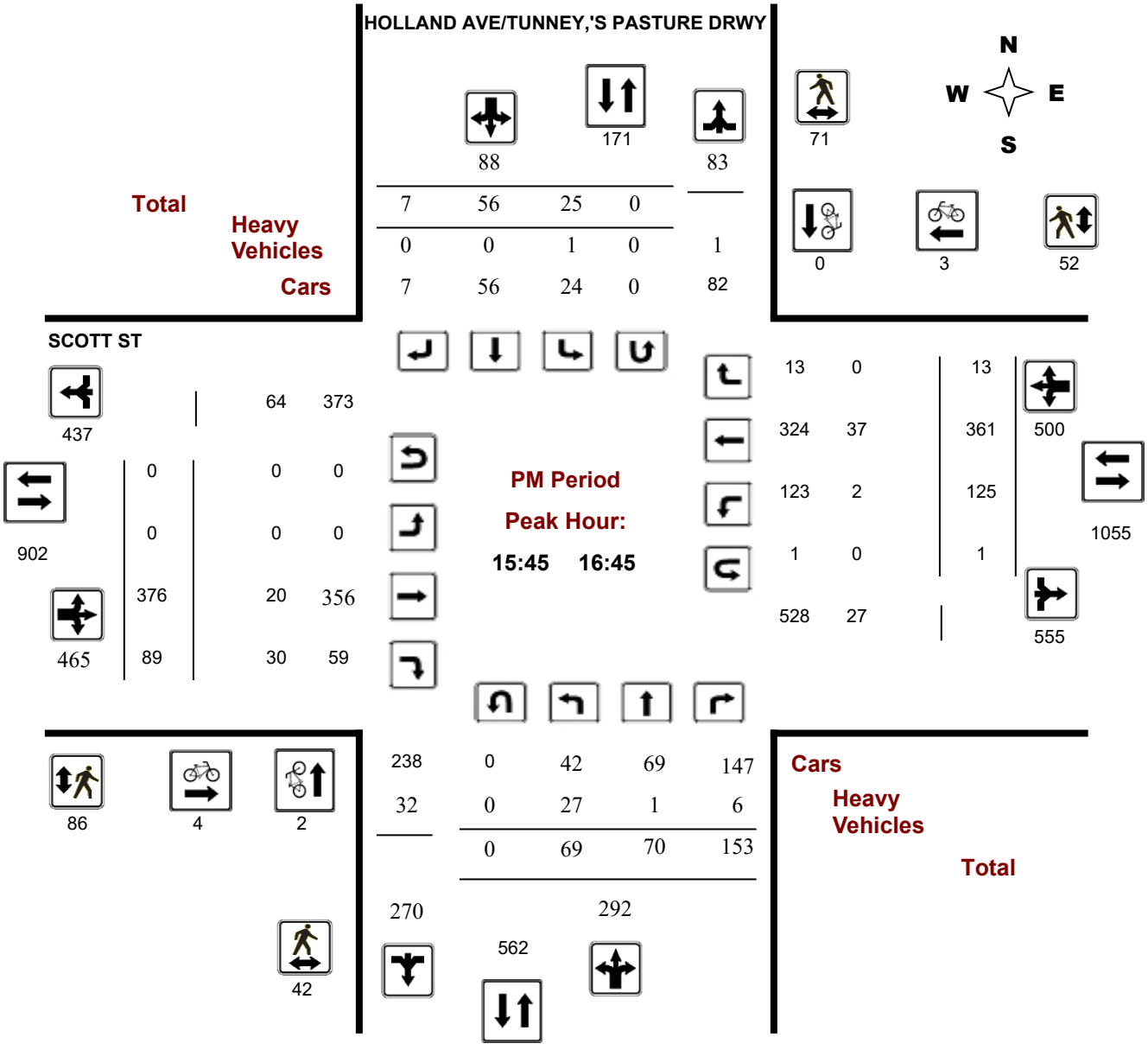
Turning Movement Count - Study Results

HOLLAND AVE/TUNNEY'S PASTURE DRWY @ SCOTT ST

Survey Date: Thursday, December 02, 2021 **WO No:** 40000

Start Time: 07:00 **Device:** Miovision

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

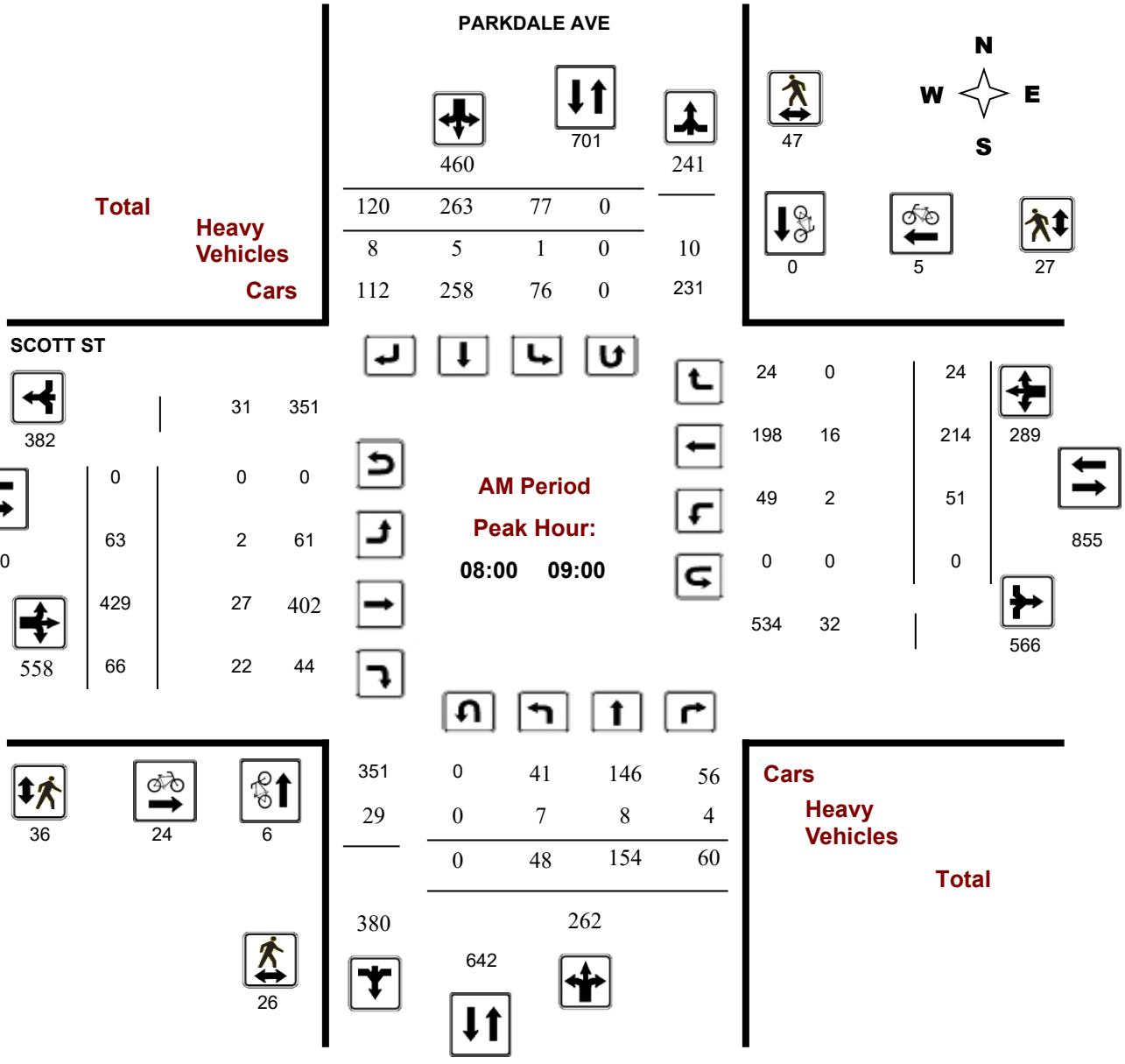
Turning Movement Count - Study Results

PARKDALE AVE @ SCOTT ST

Survey Date: Wednesday, March 08, 2023 **WO No:** 40838

Start Time: 07:00 **Device:** Miovision

AM Period Peak Hour Diagram



Transportation Services - Traffic Services

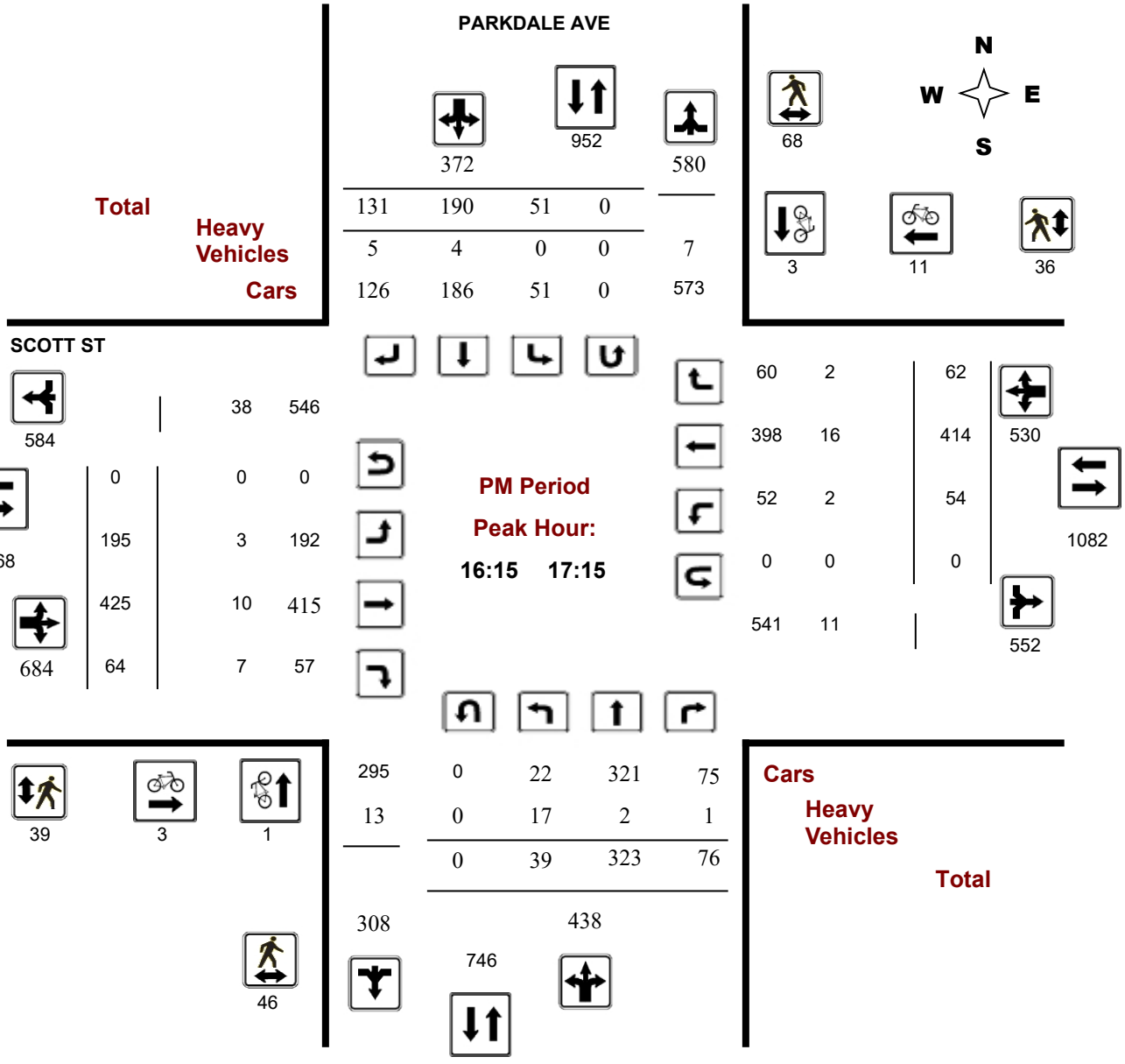
Turning Movement Count - Study Results

PARKDALE AVE @ SCOTT ST

Survey Date: Wednesday, March 08, 2023 **WO No:** 40838

Start Time: 07:00 **Device:** Miovision

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

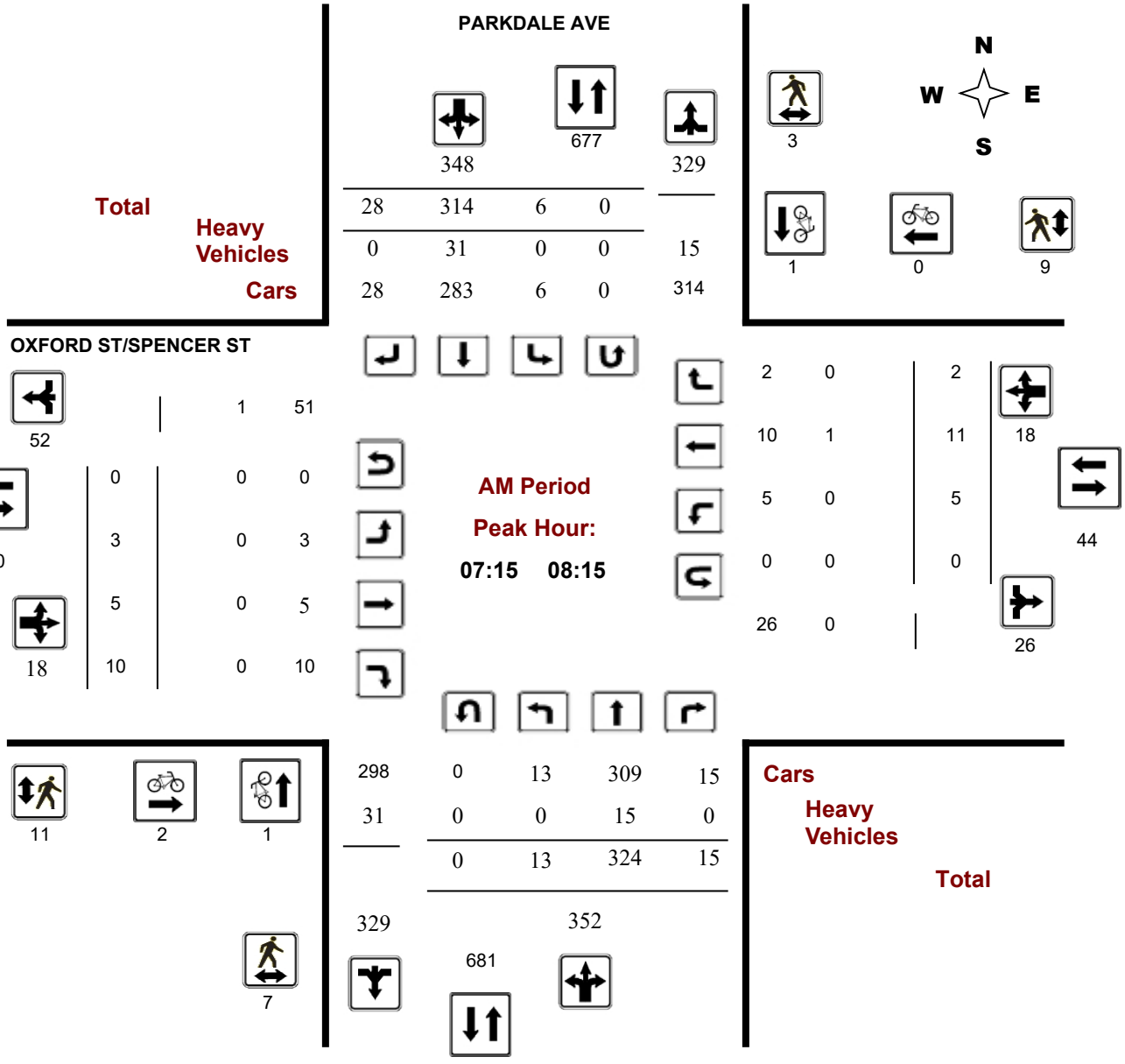
Turning Movement Count - Study Results

PARKDALE AVE @ OXFORD ST/SPENCER ST

Survey Date: Wednesday, April 24, 2024 **WO No:** 41740

Start Time: 07:00 **Device:** Miovision

AM Period Peak Hour Diagram



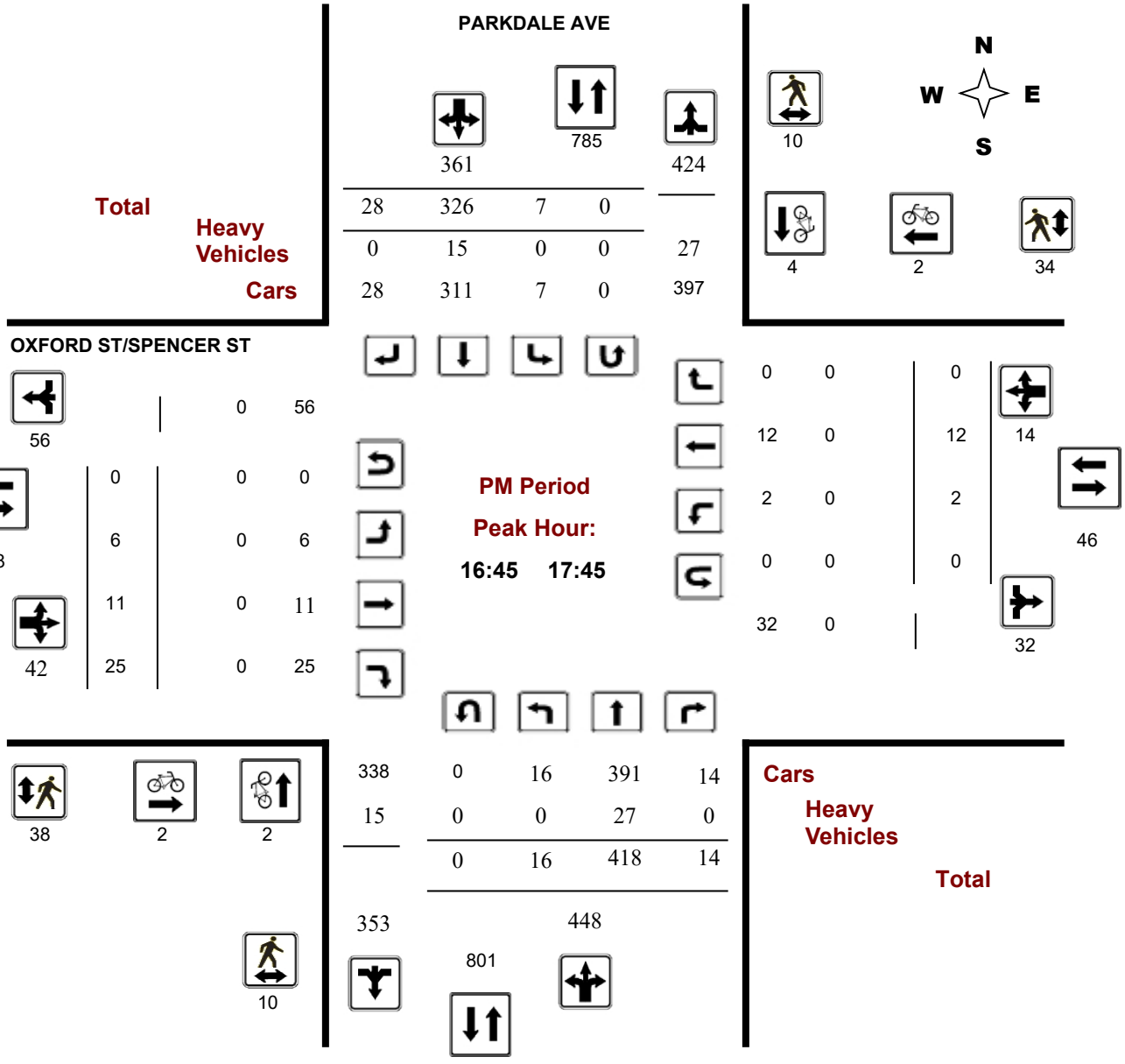
Transportation Services - Traffic Services

Turning Movement Count - Study Results

PARKDALE AVE @ OXFORD ST/SPENCER ST

Survey Date: Wednesday, April 24, 2024
Start Time: 07:00
WO No: 41740
Device: Miovision

PM Period Peak Hour Diagram



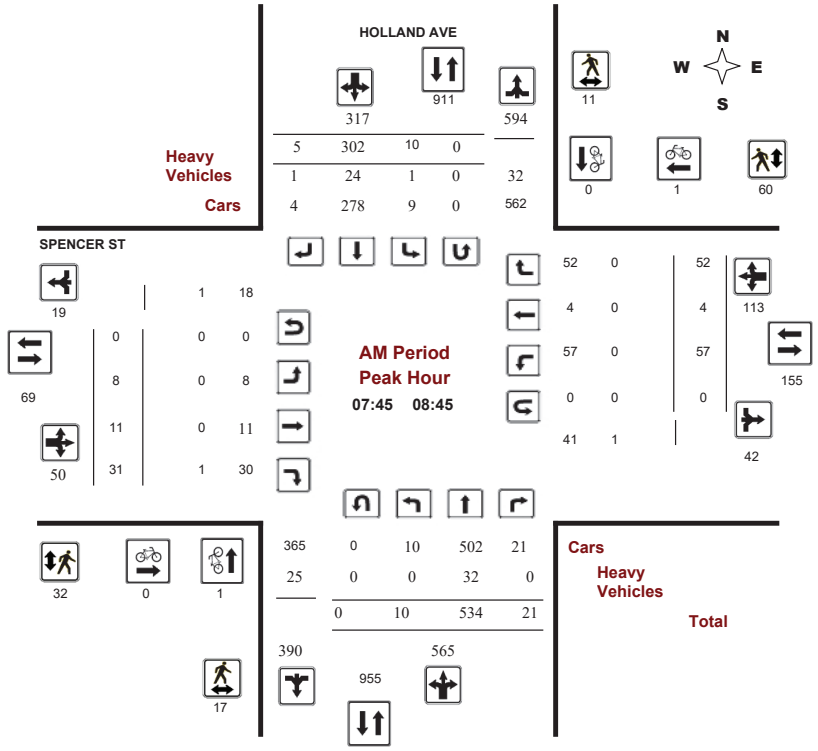
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

HOLLAND AVE @ SPENCER ST

Survey Date: Wednesday, January 11, 2017 **WO No:** 36635

Start Time: 07:00 **Device:** Miovision



Comments

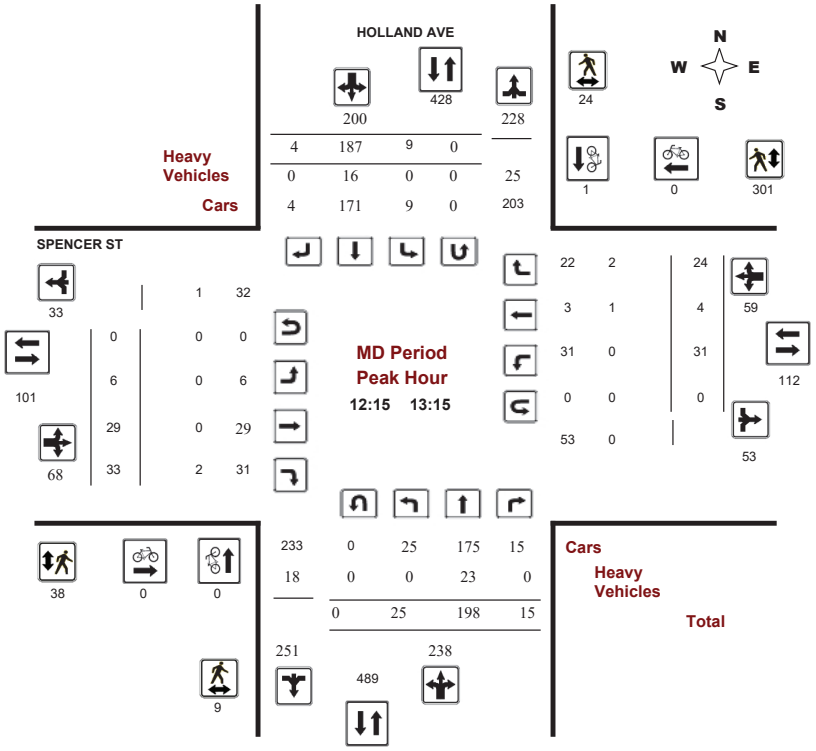
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

HOLLAND AVE @ SPENCER ST

Survey Date: Wednesday, January 11, 2017 **WO No:** 36635

Start Time: 07:00 **Device:** Miovision



Comments

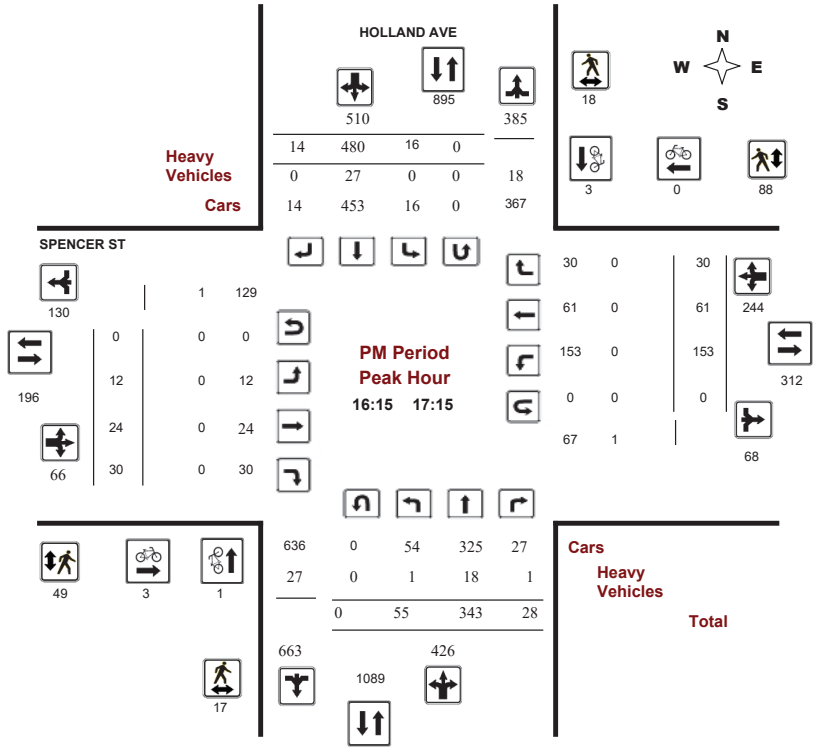
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

HOLLAND AVE @ SPENCER ST

Survey Date: Wednesday, January 11, 2017 **WO No:** 36635

Start Time: 07:00 **Device:** Miovision



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

HOLLAND AVE @ SPENCER ST

Survey Date: Wednesday, January 11, 2017 **WO No:** 36635

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, January 11, 201

Total Observed U-Turns

Northbound: 0 Southbound: 0

Eastbound: 0 Westbound: 0

AADT Factor 1.00

	HOLLAND AVE								SPENCER ST								
	Northbound				Southbound				Eastbound				Westbound				
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00 08:00	5	508	25	**538**	11	264	1	**276**	**814**	0	8	27	**35**	24	4	55	**83**	**118**	**932**
08:00 09:00	11	525	25	**561**	9	286	9	**304**	**865**	12	10	27	**49**	59	2	48	**109**	**158**	**1023**
09:00 10:00	10	327	18	**355**	11	209	2	**222**	**577**	4	12	25	**41**	22	4	36	**62**	**103**	**680**
11:30 12:30	9	175	12	**196**	5	199	6	**210**	**406**	6	24	34	**64**	31	10	16	**57**	**121**	**527**
12:30 13:30	27	194	17	**238**	11	191	3	**205**	**443**	7	24	31	**62**	27	6	22	**55**	**117**	**560**
15:00 16:00	17	407	23	**447**	23	428	3	**454**	**901**	3	25	27	**55**	101	25	36	**162**	**217**	**1118**
16:00 17:00	42	342	30	**414**	23	491	10	**524**	**938**	7	31	30	**68**	142	49	27	**218**	**286**	**1224**
17:00 18:00	45	321	19	**385**	14	388	10	**412**	**797**	9	23	25	**57**	123	46	23	**192**	**249**	**1046**
Sub Total	166	2799	169	**3134**	107	2456	44	**2607**	**5741**	48	157	226	**431**	529	146	263	**938**	**1369**	**7110**
U Turns	0			**0**	0			**0**	**0**	**0**			**0**	0			**0**	**0**	**0**
Total	166	2799	169	**3134**	107	2456	44	**2607**	**5741**	48	157	226	**431**	529	146	263	**938**	**1369**	**7110**
EQ 12Hr	231	3891	235	**4357**	149	3414	61	**3624**	**7981**	67	218	314	**599**	735	203	366	**1304**	**1903**	**9884**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	231	3891	235	**4357**	149	3414	61	**3624**	**7981**	67	218	314	**599**	735	203	366	**1304**	**1903**	**9884**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**1.00**					
AVG 24Hr	303	5097	308	**5708**	195	4472	80	**4747**	**10455**	88	286	411	**785**	963	266	479	**1708**	**2493**	**12948**
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.														**1.31**					

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

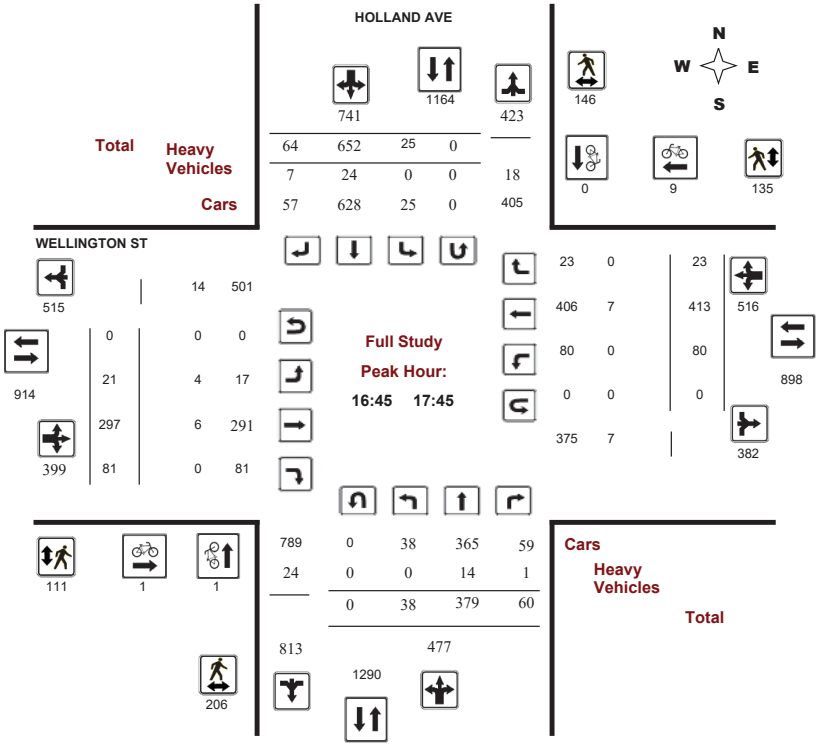
Turning Movement Count - Study Results

HOLLAND AVE @ WELLINGTON ST

Survey Date: Wednesday, November 22, 2017 **WO No:** 37317

Start Time: 07:00 **Device:** Miovision

Full Study Peak Hour Diagram



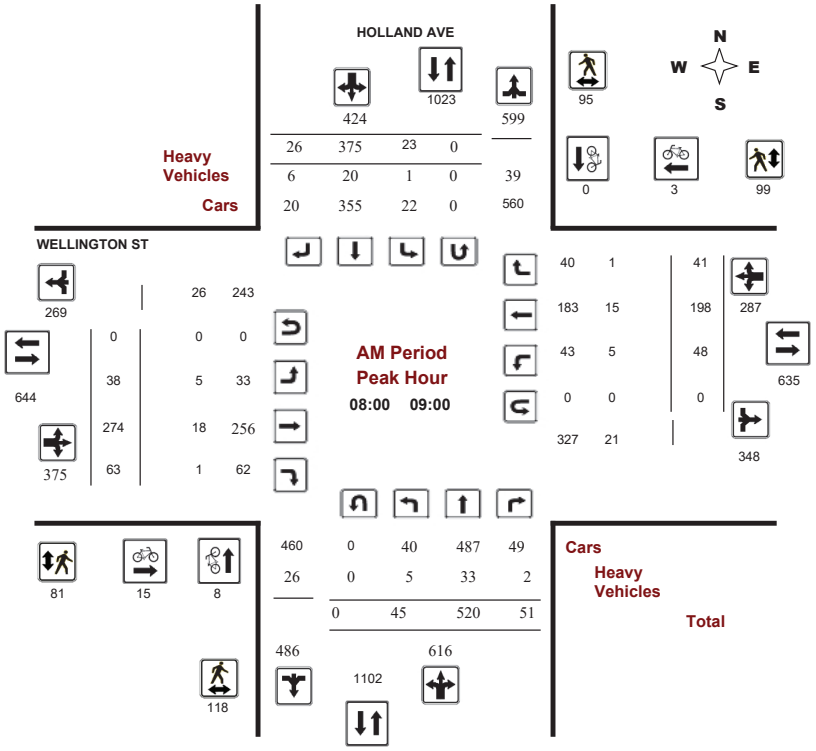
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

HOLLAND AVE @ WELLINGTON ST

Survey Date: Wednesday, November 22, 2017 **WO No:** 37317

Start Time: 07:00 **Device:** Miovision



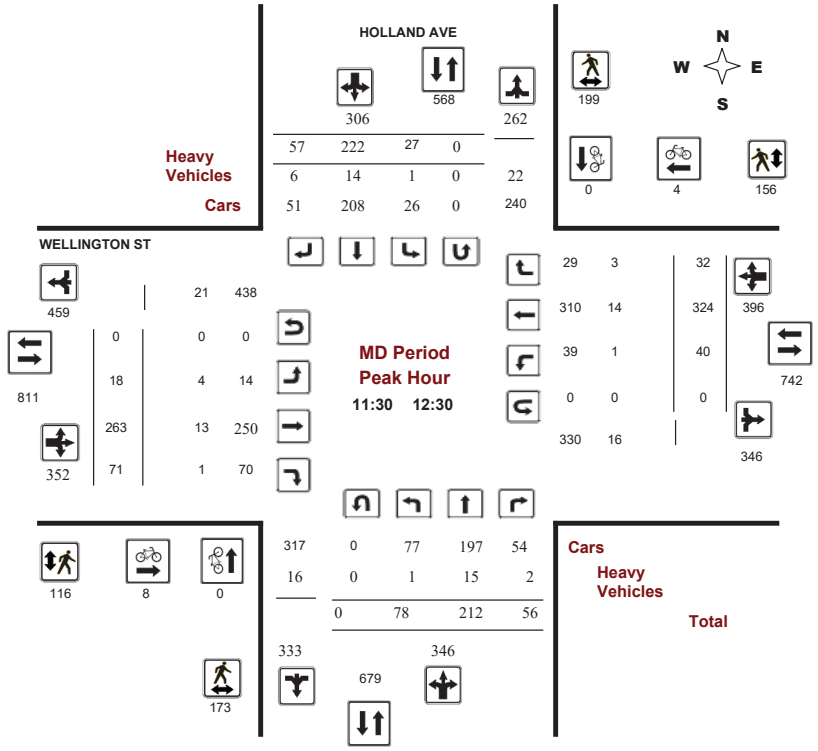
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

HOLLAND AVE @ WELLINGTON ST

Survey Date: Wednesday, November 22, 2017 **WO No:** 37317

Start Time: 07:00 **Device:** Miovision



Comments

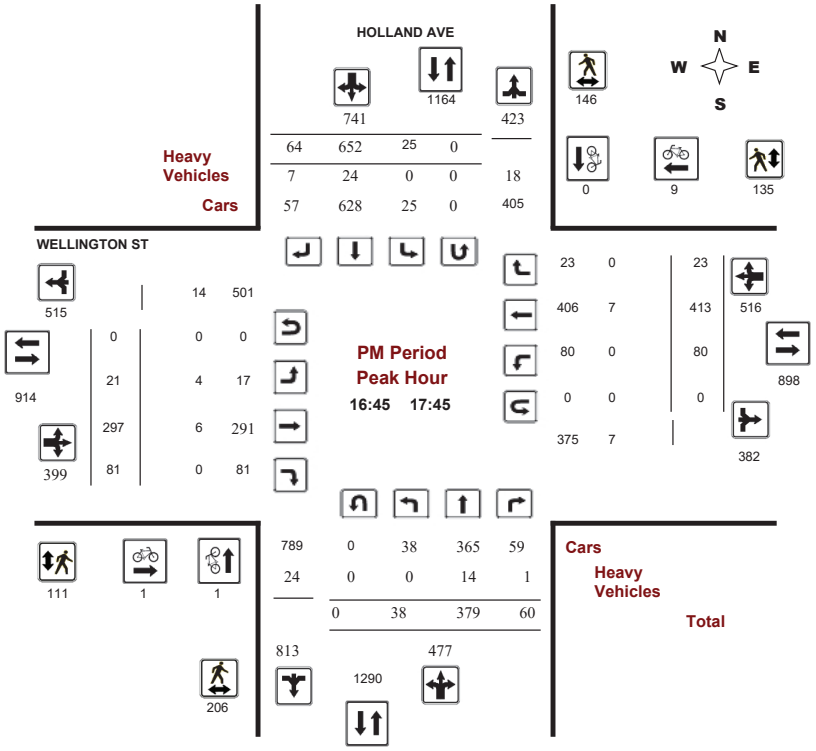
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

HOLLAND AVE @ WELLINGTON ST

Survey Date: Wednesday, November 22, 2017 **WO No:** 37317

Start Time: 07:00 **Device:** Miovision



Comments

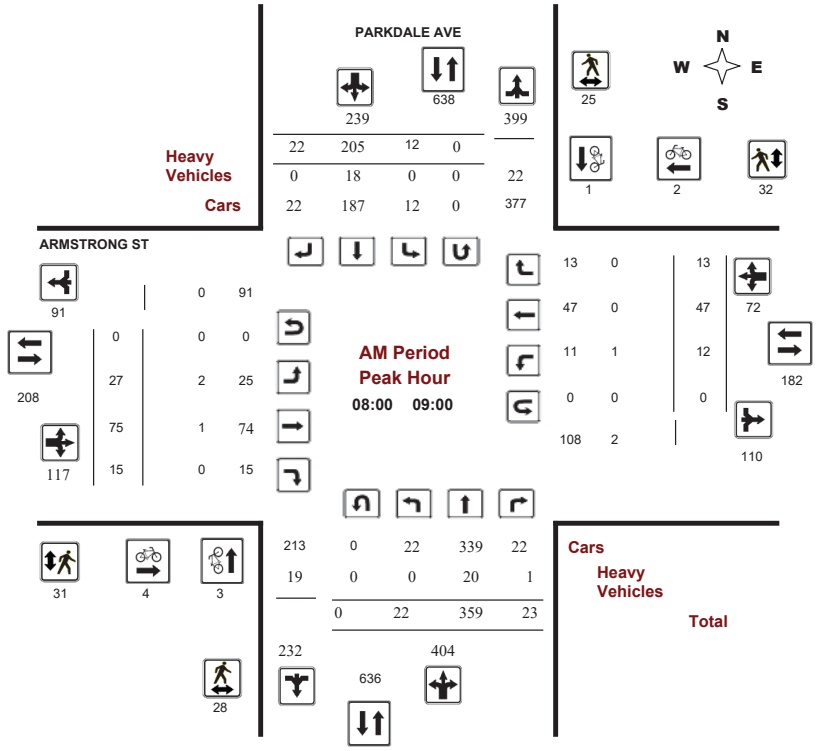
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

ARMSTRONG ST @ PARKDALE AVE

Survey Date: Wednesday, November 20, 2019 **WO No:** 39060

Start Time: 07:00 **Device:** Miovision



Comments

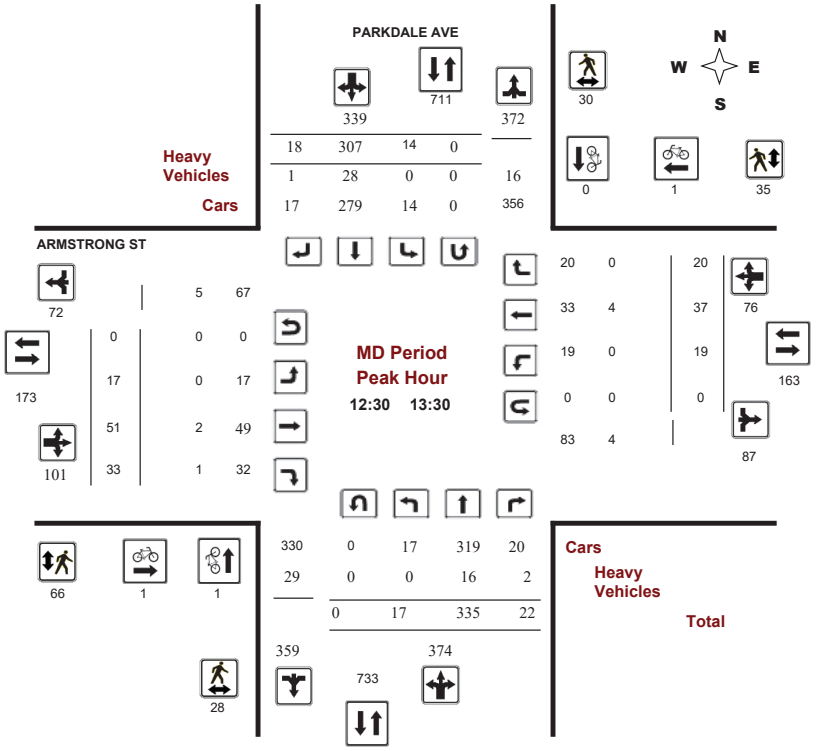
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

ARMSTRONG ST @ PARKDALE AVE

Survey Date: Wednesday, November 20, 2019 **WO No:** 39060

Start Time: 07:00 **Device:** Miovision



Comments

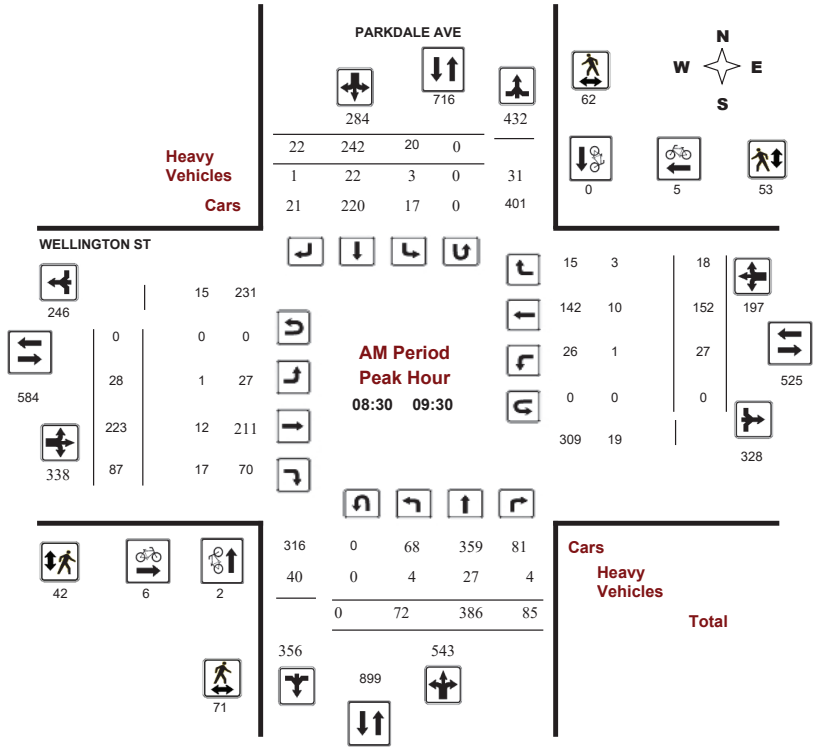
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

PARKDALE AVE @ WELLINGTON ST

Survey Date: Tuesday, March 10, 2020 **WO No:** 39588

Start Time: 07:00 **Device:** Miovision



Comments 5479331 - MAR 10 2020 - 8HRS - LAUREN O'GRADY

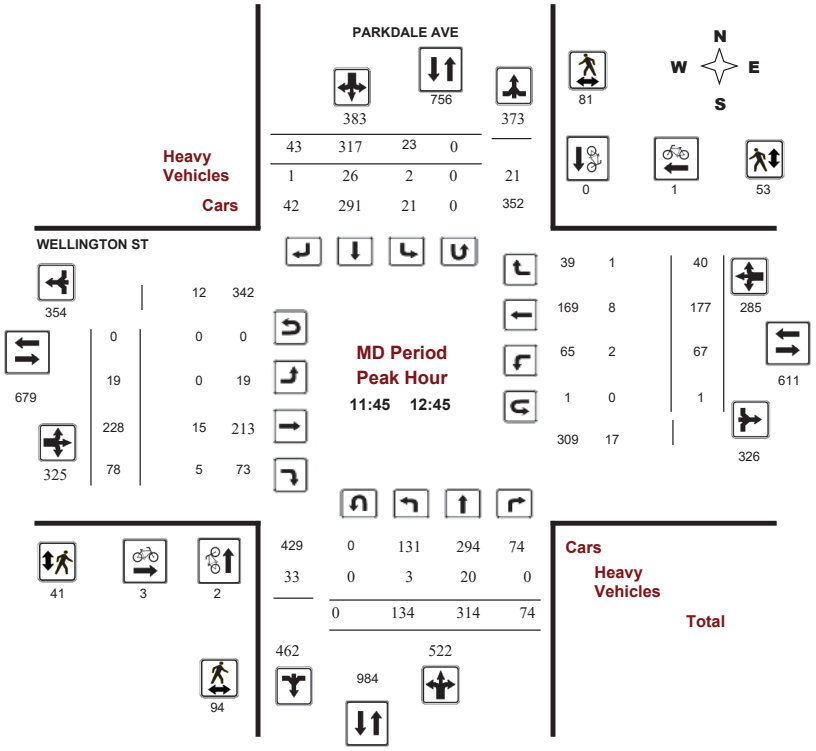
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

PARKDALE AVE @ WELLINGTON ST

Survey Date: Tuesday, March 10, 2020 **WO No:** 39588

Start Time: 07:00 **Device:** Miovision



Comments 5479331 - MAR 10 2020 - 8HRS - LAUREN O'GRADY

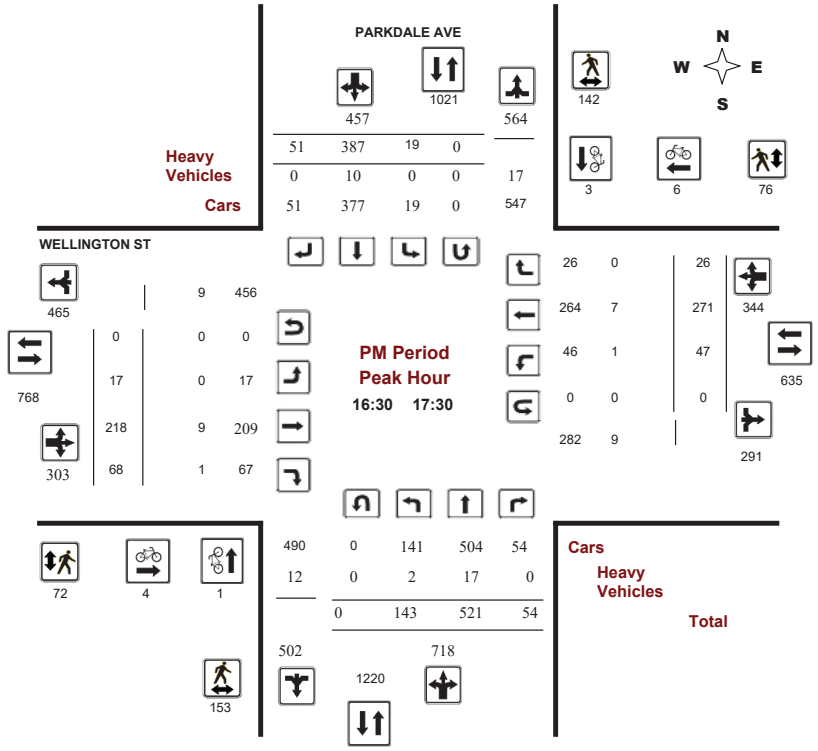
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

PARKDALE AVE @ WELLINGTON ST

Survey Date: Tuesday, March 10, 2020 **WO No:** 39588

Start Time: 07:00 **Device:** Miovision



Comments 5479331 - MAR 10 2020 - 8HRS - LAUREN O'GRADY

Transportation Services - Traffic Services

Turning Movement Count - Study Results

PARKDALE AVE @ WELLINGTON ST

Survey Date: Tuesday, March 10, 2020 **WO No:** 39588

Start Time: 07:00 **Device:** Miovision

Full Study Summary (8 HR Standard)

Survey Date: Tuesday, March 10, 2020

Total Observed U-Turns

Northbound: 0 Southbound: 1

Eastbound: 0 Westbound: 1

AADT Factor 1.00

	PARKDALE AVE								WELLINGTON ST								
	Northbound				Southbound				Eastbound				Westbound				
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00 08:00	63	397	28	**488**	11	293	11	**315**	**803**	24	178	58	**260**	28	82	2	**112**	**372**	**1175**
08:00 09:00	81	383	65	**529**	15	241	25	**281**	**810**	16	263	76	**355**	22	145	12	**179**	**534**	**1344**
09:00 10:00	73	346	89	**508**	21	264	12	**297**	**805**	26	207	77	**310**	25	156	26	**207**	**517**	**1322**
11:30 12:30	137	307	79	**523**	23	311	46	**380**	**903**	22	215	71	**308**	66	179	42	**287**	**595**	**1498**
12:30 13:30	118	317	80	**515**	27	291	33	**351**	**866**	18	218	100	**336**	64	181	35	**280**	**616**	**1482**
15:00 16:00	101	391	28	**520**	15	213	24	**252**	**772**	22	182	52	**256**	31	250	25	**306**	**562**	**1334**
16:00 17:00	124	464	60	**648**	19	368	51	**438**	**1086**	16	221	70	**307**	43	283	17	**343**	**650**	**1736**
17:00 18:00	131	529	78	**738**	24	364	40	**428**	**1166**	30	216	60	**306**	41	241	30	**312**	**618**	**1784**
Sub Total	828	3134	507	**4469**	155	2345	242	**2742**	**7211**	174	1700	564	**2438**	320	1517	189	**2026**	**4464**	**11675**
U Turns	0			**0**	1			**1**	**1**	**0**			**0**	1			**1**	**1**	**2**
Total	828	3134	507	**4469**	156	2345	242	**2743**	**7212**	174	1700	564	**2438**	321	1517	189	**2027**	**4465**	**11677**
EQ 12Hr	1151	4356	705	**6212**	217	3260	336	**3813**	**10025**	242	2363	784	**3389**	446	2109	263	**2818**	**6207**	**16232**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	1151	4356	705	**6212**	217	3260	336	**3813**	**10025**	242	2363	784	**3389**	446	2109	263	**2818**	**6207**	**16232**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**1.00**					
AVG 24Hr	1508	5706	924	**8138**	284	4271	440	**4995**	**13133**	317	3096	1027	**4440**	584	2763	345	**3692**	**8132**	**21265**
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.														**1.31**					

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

Transportation Services - Traffic Services

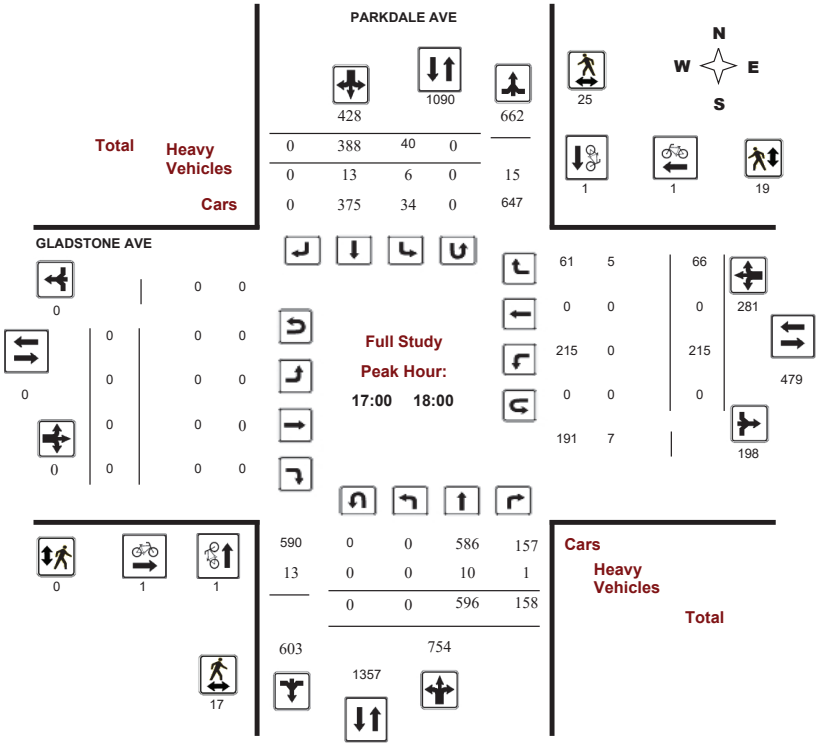
Turning Movement Count - Study Results

PARKDALE AVE @ GLADSTONE AVE

Survey Date: Thursday, December 05, 2019 **WO No:** 39201

Start Time: 07:00 **Device:** Miovision

Full Study Peak Hour Diagram



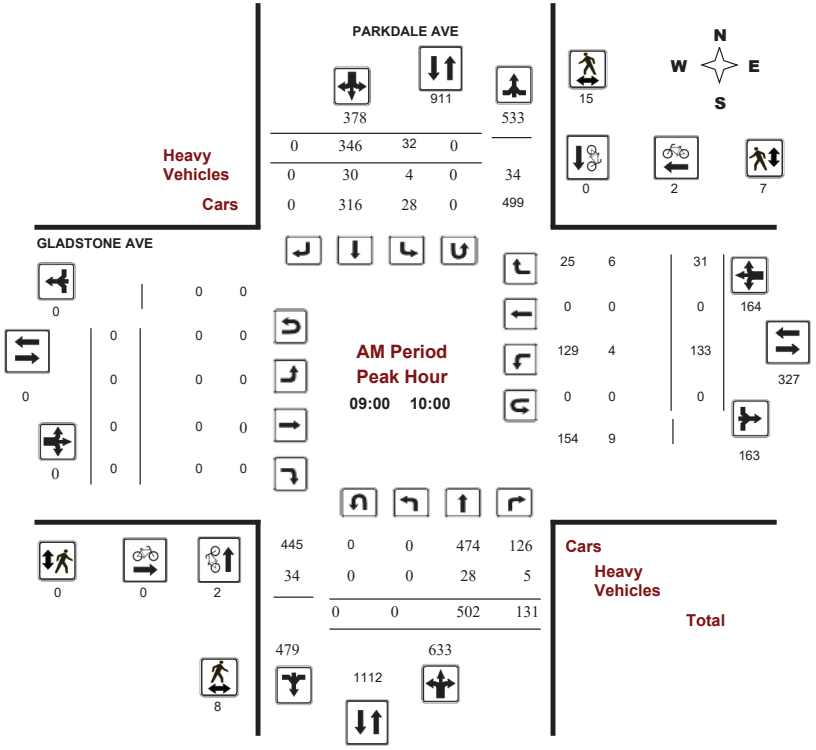
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

PARKDALE AVE @ GLADSTONE AVE

Survey Date: Thursday, December 05, 2019 **WO No:** 39201

Start Time: 07:00 **Device:** Miovision



Comments

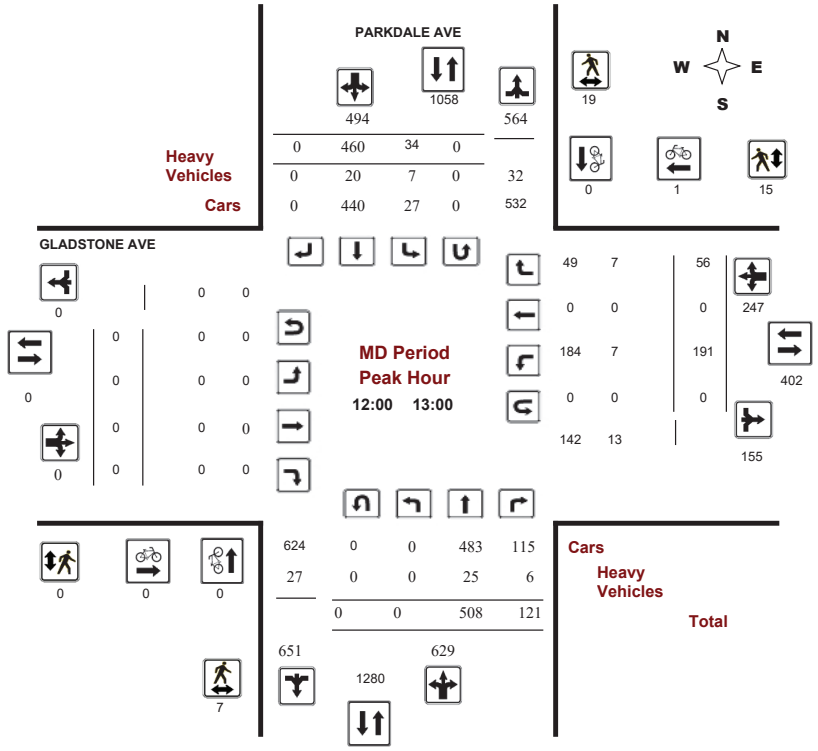
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

PARKDALE AVE @ GLADSTONE AVE

Survey Date: Thursday, December 05, 2019 **WO No:** 39201

Start Time: 07:00 **Device:** Miovision



Comments

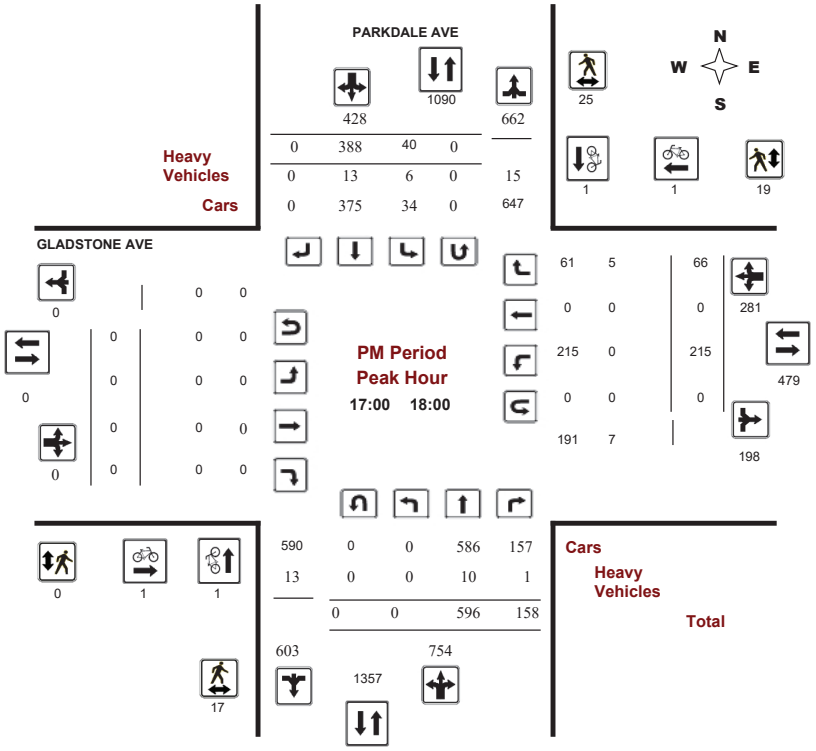
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

PARKDALE AVE @ GLADSTONE AVE

Survey Date: Thursday, December 05, 2019 **WO No:** 39201

Start Time: 07:00 **Device:** Miovision



Comments

Appendix D:

Historic Collision Data

Total Area

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	47	28	50	38	2	5	28	3	201	88%
Non-fatal injury	7	8	2	5	0	6	0	0	28	12%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	54	36	52	43	2	11	28	3	229	100%
	#1 or 24%	#4 or 16%	#2 or 23%	#3 or 19%	#8 or 1%	#6 or 5%	#5 or 12%	#7 or 1%		

HOLLAND AVE/TUNNEY'S PASTURE/SCOTT ST

Years	Total # Collisions	24 Hr AADT Veh Volume	Days	Collisions/MEV
2017-2021	25	n/a	1825	**n/a**

Peds	Cyclists
0	**1**

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	4	8	9	1	0	1	0	0	23	92%
Non-fatal injury	1	1	0	0	0	0	0	0	2	8%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	**5**	**9**	**9**	**1**	**0**	**1**	**0**	**0**	**25**	100%
	20%	36%	36%	4%	0%	4%	0%	0%		

HOLLAND AVE/SPENCER ST

Years	Total # Collisions	24 Hr AADT Veh Volume	Days	Collisions/MEV
2017-2021	4	12,948	1825	**0.17**

Peds	Cyclists
1	**0**

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	0	0	1	0	0	0	0	1	25%
Non-fatal injury	2	0	0	0	0	1	0	0	3	75%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	**2**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**4**	100%
	50%	0%	0%	25%	0%	25%	0%	0%		

ARMSTRONG ST/HOLLAND AVE

Years	Total # Collisions	24 Hr AADT Veh Volume	Days	Collisions/MEV
2017-2021	6	n/a	1825	**n/a**

Peds	Cyclists
0	**0**

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	0	0	6	0	0	0	0	6	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**6**	100%
	0%	0%	0%	100%	0%	0%	0%	0%		

HOLLAND AVE/WELLINGTON ST

Years	Total # Collisions	24 Hr AADT Veh Volume	Days	Collisions/MEV
2017-2021	34	20,402	1825	**0.91**

Peds	Cyclists
2	**2**

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	10	5	11	2	0	0	2	0	30	88%
Non-fatal injury	0	1	0	1	0	2	0	0	4	12%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	**10**	**6**	**11**	**3**	**0**	**2**	**2**	**0**	**34**	100%
	29%	18%	32%	9%	0%	6%	6%	0%		

PARKDALE AVE/SCOTT ST

Years	Total # Collisions	24 Hr AADT Veh Volume	Days	Collisions/MEV
2017-2021	32	n/a	1825	**n/a**

Peds	Cyclists
0	**2**

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	12	2	5	6	1	2	0	0	28	88%
Non-fatal injury	0	3	0	1	0	0	0	0	4	13%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	**12**	**5**	**5**	**7**	**1**	**2**	**0**	**0**	**32**	100%
	38%	16%	16%	22%	3%	6%	0%	0%		

ARMSTRONG ST/PARKDALE AVE

Years	Total # Collisions	24 Hr AADT Veh Volume	Days	Collisions/MEV
2017-2021	8	10,998	1825	**0.40**

Peds	Cyclists
1	**1**

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	2	0	0	3	0	0	0	0	5	63%
Non-fatal injury	1	1	0	0	0	1	0	0	3	38%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	**3**	**1**	**0**	**3**	**0**	**1**	**0**	**0**	**8**	100%
	38%	13%	0%	38%	0%	13%	0%	0%		

PARKDALE AVE/WELLINGTON ST

Years	Total # Collisions	24 Hr AADT Veh Volume	Days	Collisions/MEV
2017-2021	29	21,265	1825	**0.75**

Peds	Cyclists
0	**1**

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	6	6	10	4	1	0	0	2	29	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	**6**	**6**	**10**	**4**	**1**	**0**	**0**	**2**	**29**	100%
	21%	21%	34%	14%	3%	0%	0%	7%		

PARKDALE AVE/GLADSTONE AVE

Years	Total # Collisions	24 Hr AADT Veh Volume	Days	Collisions/MEV
2017-2021	18	18,363	1825	**0.54**

Peds	Cyclists
1	**2**

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	5	1	4	3	0	0	0	0	13	72%
Non-fatal injury	2	0	2	0	0	1	0	0	5	28%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	**7**	**1**	**6**	**3**	**0**	**1**	**0**	**0**	**18**	100%
	39%	6%	33%	17%	0%	6%	0%	0%		

ARMSTRONG ST/HAMILTON AVE

Years	Total # Collisions	24 Hr AADT Veh Volume	Days	Collisions/MEV
2017-2021	2	n/a	1825	**n/a**

Peds	Cyclists
0	**1**

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	0	0	1	0	0	0	0	1	50%
Non-fatal injury	0	0	0	1	0	0	0	0	1	50%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**2**	100%
	0%	0%	0%	100%	0%	0%	0%	0%		

ROAD SEGMENTS

HOLLAND AVE, SCOTT TO WELLINGTON

Years	Total # Collisions	24 Hr AADT Veh Volume	Days	Collisions/MEV
2017-2021	14	n/a	1825	**n/a**

Peds	Cyclists
0	**0**

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	3	4	0	0	0	4	1	12	86%
Non-fatal injury	0	1	0	1	0	0	0	0	2	14%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	**0**	**4**	**4**	**1**	**0**	**0**	**4**	**1**	**14**	100%
	0%	29%	29%	7%	0%	0%	29%	7%		

SCOTT ST, PARKDALE AVE to TUNNEY'S PASTURE DRWY

Years	Total # Collisions	24 Hr AADT Veh Volume	Days	Collisions/MEV
2017-2021	7	n/a	1825	**n/a**

Peds	Cyclists
0	**1**

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	1	2	1	1	0	1	0	0	6	86%
Non-fatal injury	0	1	0	0	0	0	0	0	1	14%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	**1**	**3**	**1**	**1**	**0**	**1**	**0**	**0**	**7**	100%
	14%	43%	14%	14%	0%	14%	0%	0%		

PARKDALE AVE, SCOTT TO GLADSTONE

Years	Total # Collisions	24 Hr AADT Veh Volume	Days	Collisions/MEV
2017-2021	25	n/a	1825	**n/a**

Peds	Cyclists
1	**0**

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	6	1	1	7	0	1	6	0	22	88%
Non-fatal injury	1	0	0	1	0	1	0	0	3	12%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	**7**	**1**	**1**	**8**	**0**	**2**	**6**	**0**	**25**	100%

ARMSTRONG ST, HAMILTON AVE N to PARKDALE AVE

Years	Total # Collisions	24 Hr AADT Veh Volume	Days	Collisions/MEV
2017-2021	2	n/a	1825	**n/a**

Peds	Cyclists
0	**0**

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	0	0	1	0	0	1	0	2	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**2**	100%
	0%	0%	0%	50%	0%	0%	50%	0%		

WELLINGTON AVE, HOLLAND TO PARKDALE

Years	Total # Collisions	24 Hr AADT Veh Volume	Days	Collisions/MEV
2017-2021	23	n/a	1825	**n/a**

Peds	Cyclists
0	**0**

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	1	0	5	2	0	0	15	0	23	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	**1**	**0**	**5**	**2**	**0**	**0**	**15**	**0**	**23**	100%
	4%	0%	22%	9%	0%	0%	65%	0%		

Appendix E:

Historic Background Traffic Volume Growth

Parkdale/Scott
8 hrs

Year	Date	North Leg		South Leg		East Leg		West Leg		Total
		SB	NB	NB	SB	WB	EB	EB	WB	
2007	7/13/2007	3825	3694	3330	3312	3149	4028	4846	4116	30300
2008	5/9/2008	3557	3723	3027	3164	3406	4543	5648	4208	31276
2011	6/14/2011	2586	3986	4765	3285	3634	4653	4864	3925	31698
2014	4/1/2014	3440	4035	3546	3211	3351	3979	4660	3784	30006
2023	3/8/2023	3017	2783	2582	2879	2763	3417	3860	3143	24444

North Leg

Year	Counts				% Change			
	NB	*SB*	*NB+SB*	*INT*	*NB*	*SB*	*NB+SB*	*INT*
2007	3694	3825	7519	30300				
2008	3723	3557	7280	31276	0.8%	-7.0%	-3.2%	3.2%
2011	3986	2586	6572	31698	7.1%	-27.3%	-9.7%	1.3%
2014	4035	3440	7475	30006	1.2%	33.0%	13.7%	-5.3%
2023	2783	3017	5800	24444	-31.0%	-12.3%	-22.4%	-18.5%

Regression Estimate	2007	3970	3479	7449
Regression Estimate	2023	3040	2924	5964
Average Annual Change		**-1.65%**	**-1.08%**	**-1.38%**

West Leg

Year	Counts				% Change			
	EB	*WB*	*EB+WB*	*INT*	*EB*	*WB*	*EB+WB*	*INT*
2007	4846	4116	8962	30300				
2008	5648	4208	9856	31276	16.5%	2.2%	10.0%	3.2%
2011	4864	3925	8789	31698	-13.9%	-6.7%	-10.8%	1.3%
2014	4660	3784	8444	30006	-4.2%	-3.6%	-3.9%	-5.3%
2023	3860	3143	7003	24444	-17.2%	-16.9%	-17.1%	-18.5%

Regression Estimate	2007	5258	4198	9456
Regression Estimate	2023	3880	3161	7041
Average Annual Change		**-1.88%**	**-1.76%**	**-1.83%**

East Leg

Year	Counts				% Change			
	EB	*WB*	*EB+WB*	*INT*	*EB*	*WB*	*EB+WB*	*INT*
2007	4028	3149	7177	30300				
2008	4543	3406	7949	31276	12.8%	8.2%	10.8%	3.2%
2011	4653	3634	8287	31698	2.4%	6.7%	4.3%	1.3%
2014	3979	3351	7330	30006	-14.5%	-7.8%	-11.5%	-5.3%
2023	3417	2763	6180	24444	-14.1%	-17.5%	-15.7%	-18.5%

Regression Estimate	2007	4456	3453	7909
Regression Estimate	2023	3508	2902	6410
Average Annual Change		**-1.48%**	**-1.08%**	**-1.31%**

South Leg

Year	Counts				% Change			
	NB	*SB*	*NB+SB*	*INT*	*NB*	*SB*	*NB+SB*	*INT*
2007	3330	3312	6642	30300				
2008	3027	3164	6191	31276	-9.1%	-4.5%	-6.8%	3.2%
2011	4765	3285	8050	31698	57.4%	3.8%	30.0%	1.3%
2014	3546	3211	6757	30006	-25.6%	-2.3%	-16.1%	-5.3%
2023	2582	2879	5461	24444	-27.2%	-10.3%	-19.2%	-18.5%

Regression Estimate	2007	3734	3303	7037
Regression Estimate	2023	2923	2923	5846
Average Annual Change		**-1.52%**	**-0.76%**	**-1.15%**

Parkdale/Scott
AM Peak

Year	Date	North Leg		South Leg		East Leg		West Leg		Total
		SB	NB	NB	SB	WB	EB	EB	WB	
2007	7/13/2007	512	359	338	412	326	635	672	442	3696
2008	5/9/2008	523	360	345	439	375	771	825	498	4136
2011	6/14/2011	293	439	571	343	609	615	586	662	4118
2014	4/1/2014	564	418	380	442	329	794	789	420	4136
2023	3/8/2023	460	241	262	380	289	566	558	382	3138

North Leg

Year	Counts				% Change			
	NB	*SB*	*NB+SB*	*INT*	*NB*	*SB*	*NB+SB*	*INT*
2007	359	512	871	3696				
2008	360	523	883	4136	0.3%	2.1%	1.4%	11.9%
2011	439	293	732	4118	21.9%	-44.0%	-17.1%	-0.4%
2014	418	564	982	4136	-4.8%	92.5%	34.2%	0.4%
2023	241	460	701	3138	-42.3%	-18.4%	-28.6%	-24.1%

Regression Estimate	2007	407	476	883
Regression Estimate	2023	283	460	743
Average Annual Change		**-2.24%**	**-0.22%**	**-1.07%**

West Leg

Year	Counts				% Change			
	EB	*WB*	*EB+WB*	*INT*	*EB*	*WB*	*EB+WB*	*INT*
2007	672	442	1114	3696				
2008	825	498	1323	4136	22.8%	12.7%	18.8%	11.9%
2011	586	662	1248	4118	-29.0%	32.9%	-5.7%	-0.4%
2014	789	420	1209	4136	34.6%	-36.6%	-3.1%	0.4%
2023	558	382	940	3138	-29.3%	-9.0%	-22.2%	-24.1%

Regression Estimate	2007	740	524	1263
Regression Estimate	2023	586	401	987
Average Annual Change		**-1.45%**	**-1.65%**	**-1.53%**

East Leg

Year	Counts				% Change			
	EB	*WB*	*EB+WB*	*INT*	*EB*	*WB*	*EB+WB*	*INT*
2007	635	326	961	3696				
2008	771	375	1146	4136	21.4%	15.0%	19.3%	11.9%
2011	615	609	1224	4118	-20.2%	62.4%	6.8%	-0.4%
2014	794	329	1123	4136	29.1%	-46.0%	-8.3%	0.4%
2023	566	289	855	3138	-28.7%	-12.2%	-23.9%	-24.1%

Regression Estimate	2007	713	421	1135
Regression Estimate	2023	608	319	927
Average Annual Change		**-0.99%**	**-1.73%**	**-1.26%**

South Leg

Year	Counts				% Change			
	NB	*SB*	*NB+SB*	*INT*	*NB*	*SB*	*NB+SB*	*INT*
2007	338	412	750	3696				
2008	345	439	784	4136	2.1%	6.6%	4.5%	11.9%
2011	571	343	914	4118	65.5%	-21.9%	16.6%	-0.4%
2014	380	442	822	4136	-33.5%	28.9%	-10.1%	0.4%
2023	262	380	642	3138	-31.1%	-14.0%	-21.9%	-24.1%

Regression Estimate	2007	418	414	831
Regression Estimate	2023	308	384	692
Average Annual Change		**-1.89%**	**-0.46%**	**-1.14%**

Parkdale/Scott
PM Peak

Year	Date	North Leg		South Leg		East Leg		West Leg		Total
		SB	NB	NB	SB	WB	EB	EB	WB	
2007	7/13/2007	503	749	588	407	568	590	801	714	4920
2008	5/9/2008	495	676	431	379	673	635	889	798	4976
2011	6/14/2011	431	569	654	606	576	654	759	591	4840
2014	4/1/2014	319	320	314	379	351	390	442	341	2856
2023	3/8/2023	372	580	438	308	530	552	684	584	4048

North Leg

Year	Counts				% Change			
	NB	*SB*	*NB+SB*	*INT*	*NB*	*SB*	*NB+SB*	*INT*
2007	749	503	1252	4920				
2008	676	495	1171	4976	-9.7%	-1.6%	-6.5%	1.1%
2011	569	431	1000	4840	-15.8%	-12.9%	-14.6%	-2.7%
2014	320	319	639	2856	-43.8%	-26.0%	-36.1%	-41.0%
2023	580	372	952	4048	81.3%	16.6%	49.0%	41.7%

Regression Estimate	2007	638	474	1111
Regression Estimate	2023	470	332	801
Average Annual Change		**-1.89%**	**-2.21%**	**-2.02%**

West Leg

Year	Counts				% Change			
	EB	*WB*	*EB+WB*	*INT*	*EB*	*WB*	*EB+WB*	*INT*
2007	801	714	1515	4920				
2008	889	798	1687	4976	11.0%	11.8%	11.4%	1.1%
2011	759	591	1350	4840	-14.6%	-25.9%	-20.0%	-2.7%
2014	442	341	783	2856	-41.8%	-42.3%	-42.0%	-41.0%
2023	684	584	1268	4048	54.8%	71.3%	61.9%	41.7%

Regression Estimate	2007	785	676	1460
Regression Estimate	2023	586	476	1061
Average Annual Change		**-1.81%**	**-2.17%**	**-1.98%**

East Leg

Year	Counts				% Change			
	EB	*WB*	*EB+WB*	*INT*	*EB*	*WB*	*EB+WB*	*INT*
2007	590	568	1158	4920				
2008	635	673	1308	4976	7.6%	18.5%	13.0%	1.1%
2011	654	576	1230	4840	3.0%	-14.4%	-6.0%	-2.7%
2014	390	351	741	2856	-40.4%	-39.1%	-39.8%	-41.0%
2023	552	530	1082	4048	41.5%	51.0%	46.0%	41.7%

Regression Estimate	2007	598	580	1178
Regression Estimate	2023	502	464	967
Average Annual Change		**-1.08%**	**-1.38%**	**-1.23%**

South Leg

Year	Counts				% Change			
	NB	*SB*	*NB+SB*	*INT*	*NB*	*SB*	*NB+SB*	*INT*
2007	588	407	995	4920				
2008	431	379	810	4976	-26.7%	-6.9%	-18.6%	1.1%
2011	654	606	1260	4840	51.7%	59.9%	55.6%	-2.7%
2014	314	379	693	2856	-52.0%	-37.5%	-45.0%	-41.0%
2023	438	308	746	4048	39.5%	-18.7%	7.6%	41.7%

Regression Estimate	2007	530	458	988
Regression Estimate	2023	401	337	738
Average Annual Change		**-1.72%**	**-1.91%**	**-1.81%**

Appendix F:

MMLOS: Segment Analysis

Multi-Modal Level of Service - Segments Form

Project: 340 Parkdale
Consultant: Parsons
Date: Mar 10, 2025
Scenario: 479049

	Segment Name	Parkdale Existing and Future				Spencer Existing and Future				Armstrong Existing and Future				Hamilton
	OP Transect / Policy Area	Within 600m of a rapid transit station				Within 600m of a rapid transit station				Within 600m of a rapid transit station				Within 600m of a ra
	Segment Component	Majority (>50%)		Critical		Majority (>50%)		Critical		Majority (>50%)		Critical		Majority (>50%)	
	Side of Street	W or N	E or S	W or N	E or S	W or N	E or S	W or N	E or S	W or N	E or S	W or N	E or S	W or N	E or S
Pedestrian	PLOS Inputs														
	Posted Speed (km/h)	40 km/h		40 km/h		40 km/h		40 km/h		40 km/h		40 km/h		40 km/h	
	Two-Way ADT	9,000		9,000		650		650		1,550		1,550		1,325	
	Pedestrian Facility	Sidewalk	Sidewalk			Sidewalk	Sidewalk			Sidewalk	Sidewalk			Sidewalk	None
	Does the facility meet the TMP Sidewalk or MUP Policy? If not, for MUPs, does the location have a low volume of peak daily users AND are pedestrian volumes likely less than 20% of total users?	Yes	Yes			Yes	Yes			Yes	Yes			Yes	No
	Facility Width (m)	2.00m	2.00m			1.80m	1.80m			2.00m	2.00m			1.50m	-
	Offset from Motor Vehicle Travel Lanes (m)	< 0.5m	< 0.5m			< 0.5m	< 0.5m			< 0.5m	< 0.5m			-	-
	Presence of Adjacent Parking?	-	-			-	-			-	-			-	-
	General Purpose Curb Lane ADT	> 3000	> 3000			≤ 3000	≤ 3000			≤ 3000	≤ 3000			-	-
	Max. Distance between Controlled Crossings (m)	≤ 200m	≤ 200m			-	-	-	-	≤ 200m	≤ 200m			-	-
	Score	3.50	3.50	-	-	3.50	3.50	-	-	4.25	4.25	-	-	2.00	0.00
	PLOS	B	B	-	-	B	B	-	-	B	B	-	-	D	F
	Target PLOS	A				A				A				A	
Bicycle	BLOS Inputs														
	Cycling Route Classification	Elsewhere				Elsewhere				Elsewhere				Elsew	
	Cycling Facility	Shared Operating Space	Shared Operating Space	Input PLOS First	Input PLOS First	Shared Operating Space	Shared Operating Space	Input PLOS First	Input PLOS First	Shared Operating Space	Shared Operating Space	Input PLOS First	Input PLOS First	Shared Operating Space	Shared Operating Space
	Is the minimum level of separation provided according to OTM Book 18 Pre-Selection Nomograph - Rural Context (Figure 5.6)? (for paved shoulders)	-	-			-	-			-	-			-	-
	Facility Operation	-	-			-	-			-	-			-	-
	Pedestrian/Cyclist Volume	-	-			-	-			-	-			-	-
	Facility Width	-	-			-	-			-	-			-	-
	Boulevard/Buffer Width (excluding curb)	-	-			-	-			-	-			-	-
	Unsignalized Roadway Crossing Type (where cyclists are required to yield)	None	None			None	None			None	None			None	None
	Number of Travel Lanes at Crossing	-	-			-	-			-	-			-	-
	Crossing includes Median Refuge (≥ 2.7m)	-	-			-	-			-	-			-	-
	Cross-street Posted Speed (km/h)	-	-			-	-			-	-			-	-
	Cycling Path Blockages (e.g. bus stops and/or loading zones)	Frequent, Short Duration	Frequent, Short Duration			Rare	Rare			Rare	Rare			Rare	Rare
	Score	1.30	1.30	-	-	4.15	4.15	-	-	3.30	3.30	-	-	4.15	4.15
	BLOS	E	E	-	-	B	B	-	-	C	C	-	-	B	B
	Target BLOS	B				B				B				B	
Transit	TLOS Inputs														
	Transit Facility	Mixed Traffic				Select Transit Designation				Select Transit Designation				Select Transit Designation	
	Facility Type	Mixed Traffic	Mixed Traffic												
	On-Street Parking / Driveway Friction	-	-												
	Expected Transit Running Time (Qualitative)	Moderately Impeded	Moderately Impeded												
	Transit Travel Speed (Mixed Traffic Only)	Enter Speed (if available)	Enter Speed (if available)												
	TLOS	D	D			-	-			-	-			-	-
	Target TLOS	E (D if road connects to transit station)				-				-				-	
Public Realm	PRLOS Inputs														
	Context	Mainstreet or active frontage street within a Hub, Special District, or Village	Mainstreet or active frontage street within a Hub, Special District, or Village			Mainstreet or active frontage street within a Hub, Special District, or Village	Mainstreet or active frontage street within a Hub, Special District, or Village			Mainstreet or active frontage street within a Hub, Special District, or Village	Mainstreet or active frontage street within a Hub, Special District, or Village			Mainstreet or active frontage street within a Hub, Special District, or Village	Mainstreet or active frontage street within a Hub, Special District, or Village
	Inner Boulevard Width	≤ 0.6m	≤ 0.6m			≤ 0.6m	≤ 0.6m			≤ 0.6m	≤ 0.6m			≤ 0.6m	≤ 0.6m
	Middle Boulevard Width	≤ 0.5m	≤ 0.5m			≤ 0.5m	≤ 0.5m			≤ 0.5m	≤ 0.5m			≤ 0.5m	≤ 0.5m
	Outer Boulevard (Frontage) Width	-	-			-	-			-	-			-	-
	Transit Route on Segment?	Yes	Yes			No	No			No	No			No	No
	Bus Stop Elements	Curbside landing zone with no shelter	No platform or shelter			-	-			-	-			-	-
	Number of Midblock Traffic Lanes (both travel directions)	≤ 2				≤ 2				≤ 2				≤ 2	
	Score	19.20	18.60			19.50	19.50			21.00	21.00			18.00	15.00
	PRLOS	C	C			C	C			B	B			C	D
		C				C				B				C	

Multi-Modal Level of Service - Segments Form

Project: 340 Parkdale
Consultant: Parsons
Date: Mar 10, 2025
Scenario: 479049

Segment Name		**Existing**		**Hamilton Future**			
OP Transect / Policy Area		**apid transit station**		**Within 600m of a rapid transit station**			
	Segment Component	**Critical**		**Majority (>50%)**		**Critical**	
	Side of Street	**W or N**	**E or S**	**W or N**	**E or S**	**W or N**	**E or S**
Pedestrian	**PLOS Inputs**						
	Posted Speed (km/h)	40 km/h		40 km/h		40 km/h	
	Two-Way ADT	1,325		1,325		1,325	
	Pedestrian Facility			Sidewalk	Sidewalk		
	Does the facility meet the TMP Sidewalk or MUP Policy? If not, for MUPs, does the location have a low volume of peak daily users AND are pedestrian volumes likely less than 20% of total users?			Yes	Yes		
	Facility Width (m)			1.50m	2.00m		
	Offset from Motor Vehicle Travel Lanes (m)			-	< 0.5m		
	Presence of Adjacent Parking?			-	-		
	General Purpose Curb Lane ADT			-	≤ 3000		
	Max. Distance between Controlled Crossings (m)	-	-	-	-	-	-
	Score	-	-	**2.00**	**4.25**	-	-
	PLOS	**-**	**-**	**D**	**B**	**-**	**-**
	Target PLOS	****		**A**			
Bicycle	**BLOS Inputs**						
	Cycling Route Classification	**vhere**		**Elsewhere**			
	Cycling Facility	Input PLOS First	Input PLOS First	Shared Operating Space	Shared Operating Space	Input PLOS First	Input PLOS First
	Is the minimum level of separation provided according to OTM Book 18 Pre-Selection Nomograph - Rural Context (Figure 5.6)? (for paved shoulders)			-	-		
	Facility Operation			-	-		
	Pedestrian/Cyclist Volume			-	-		
	Facility Width			-	-		
	Boulevard/Buffer Width (excluding curb)			-	-		
	Unsignalized Roadway Crossing Type (where cyclists are required to yield)			None	None		
	Number of Travel Lanes at Crossing			-	-		
	Crossing includes Median Refuge (≥ 2.7m)			-	-		
	Cross-street Posted Speed (km/h)			-	-		
	Cycling Path Blockages (e.g. bus stops and/or loading zones)			Rare	Rare		
	Score	-	-	**4.15**	**4.15**	-	-
	BLOS	**-**	**-**	**B**	**B**	**-**	**-**
	Target BLOS	**3**		**B**			
Transit	**TLOS Inputs**						
	Transit Facility			**Select Transit Designation**			
	Facility Type						
	On-Street Parking / Driveway Friction						
	Expected Transit Running Time (Qualitative)						
	Transit Travel Speed (Mixed Traffic Only)						
	TLOS			**-**	**-**		
	Target TLOS			**-**			
Public Realm	**PRLOS Inputs**						
	Context			Mainstreet or active frontage street within a Hub, Special District, or Village	Mainstreet or active frontage street within a Hub, Special District, or Village		
	Inner Boulevard Width			≤ 0.6m	≤ 0.6m		
	Middle Boulevard Width			≤ 0.5m	≤ 0.5m		
	Outer Boulevard (Frontage) Width			-	-		
	Transit Route on Segment?			No	No		
	Bus Stop Elements			-	-		
	Number of Midblock Traffic Lanes (both travel directions)			≤ 2			
	Score			**18.00**	**21.00**		
	PRLOS			**C**	**B**		
				C			

Appendix G:

TDM Checklists

TDM-Supportive Development Design and Infrastructure Checklist:
Residential Developments (multi-family or condominium)

Legend

REQUIRED	The Official Plan or Zoning By-law provides related guidance that must be followed
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance

		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	1.	**WALKING & CYCLING: ROUTES**	
	1.1	**Building location & access points**	
BASIC	1.1.1	Locate building close to the street, and do not locate parking areas between the street and building entrances	☑
BASIC	1.1.2	Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	☑
BASIC	1.1.3	Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	☑
	1.2	**Facilities for walking & cycling**	
REQUIRED	1.2.1	Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations *(see Official Plan policy 4.3.3)*	☑ *Lit sidewalks*
REQUIRED	1.2.2	Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible *(see Official Plan policy 4.3.12)*	☑ *Lit sidewalks*

		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3	Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks *(see Official Plan policy 4.3.10)*	☑ Existing facilities plus new one on Hamilton
REQUIRED	1.2.4	Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps *(see Official Plan policy 4.3.10)*	☑ Existing facilities plus new one on Hamilton
REQUIRED	1.2.5	Include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on-road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians *(see Official Plan policy 4.3.11)*	☑ Existing facilities plus new one on Hamilton
BASIC	1.2.6	Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	☑ sidewalk from door to door
BASIC	1.2.7	Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	☑ lit sidewalks
BASIC	1.2.8	Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility	☐
	1.3	**Amenities for walking & cycling**	
BASIC	1.3.1	Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails	☑ Possible street furniture to be included in courtyard
BASIC	1.3.2	Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious)	☑ Not applicable, small site

		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	2.	**WALKING & CYCLING: END-OF-TRIP FACILITIES**	
	2.1	**Bicycle parking**	
REQUIRED	2.1.1	Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible *(see Official Plan policy 4.3.6)*	☑ Bicycle parking assumed mostly indoors.
REQUIRED	2.1.2	Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas *(see Zoning By-law Section 111)*	☑ Bicycle parking expected to meet/exceed requirements.1:1 ratio.
REQUIRED	2.1.3	Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored *(see Zoning By-law Section 111)*	☑ Bicycle parking to meet bylaws.
BASIC	2.1.4	Provide bicycle parking spaces equivalent to the expected number of resident-owned bicycles, plus the expected peak number of visitor cyclists	☑ 1:1 ratio proposed.
	2.2	**Secure bicycle parking**	
REQUIRED	2.2.1	Where more than 50 bicycle parking spaces are provided for a single residential building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers *(see Zoning By-law Section 111)*	☑ Bicycle parking assumed mostly indoors.
BETTER	2.2.2	Provide secure bicycle parking spaces equivalent to at least the number of units at condominiums or multi-family residential developments	☑ 1:1 ratio proposed.
	2.3	**Bicycle repair station**	
BETTER	2.3.1	Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	☑ To be considered
	3.	**TRANSIT**	
	3.1	**Customer amenities**	
BASIC	3.1.1	Provide shelters, lighting and benches at any on-site transit stops	☑
BASIC	3.1.2	Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter	☑ bus shelter pad proposed
BETTER	3.1.3	Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	☐

	TDM-supportive design & infrastructure measures: *Residential developments*		Check if completed & add descriptions, explanations or plan/drawing references
	4.	**RIDESHARING**	
	4.1	**Pick-up & drop-off facilities**	
BASIC	4.1.1	Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	☑ Layby proposed on Spencer St
	5.	**CARSHARING & BIKESHARING**	
	5.1	**Carshare parking spaces**	
BETTER	5.1.1	Provide up to three carshare parking spaces in an R3, R4 or R5 Zone for specified residential uses *(see Zoning By-law Section 94)*	☐ To confirm
	5.2	**Bikeshare station location**	
BETTER	5.2.1	Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	☐ To confirm
	6.	**PARKING**	
	6.1	**Number of parking spaces**	
REQUIRED	6.1.1	Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	☑ Minimum parking requirement met, does not exceed maximum
BASIC	6.1.2	Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	☐ To confirm during SPA
BASIC	6.1.3	Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly *(see Zoning By-law Section 104)*	☐
BETTER	6.1.4	Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking *(see Zoning By-law Section 111)*	☐
	6.2	**Separate long-term & short-term parking areas**	
BETTER	6.2.1	Provide separate areas for short-term and long-term parking (using signage or physical barriers) to permit access controls and simplify enforcement (i.e. to discourage residents from parking in visitor spaces, and vice versa)	☐ To confirm during SPA

TDM-Supportive Development Design and Infrastructure Checklist:
Non-Residential Developments (office, institutional, retail or industrial)

Legend

REQUIRED	The Official Plan or Zoning By-law provides related guidance that must be followed
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance

		TDM-supportive design & infrastructure measures: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	1.	**WALKING & CYCLING: ROUTES**	
	1.1	**Building location & access points**	
BASIC	1.1.1	Locate building close to the street, and do not locate parking areas between the street and building entrances	☑
BASIC	1.1.2	Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	☑
BASIC	1.1.3	Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	☑
	1.2	**Facilities for walking & cycling**	
REQUIRED	1.2.1	Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations *(see Official Plan policy 4.3.3)*	☑ *Lit sidewalks*
REQUIRED	1.2.2	Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible *(see Official Plan policy 4.3.12)*	☑ *Lit sidewalks*

		TDM-supportive design & infrastructure measures: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3	Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks *(see Official Plan policy 4.3.10)*	☑ Existing facilities plus new one on Hamilton
REQUIRED	1.2.4	Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps *(see Official Plan policy 4.3.10)*	☑ Existing facilities plus new one on Hamilton
REQUIRED	1.2.5	Include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on-road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians *(see Official Plan policy 4.3.11)*	☑ Existing facilities plus new one on Hamilton
BASIC	1.2.6	Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	☑ sidewalk from door to door
BASIC	1.2.7	Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	☑ lit sidewalks
BASIC	1.2.8	Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility	☐
	1.3	**Amenities for walking & cycling**	
BASIC	1.3.1	Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails	☑ Possible street furniture to be included in courtyard
BASIC	1.3.2	Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious)	☑ Not applicable, small site

		TDM-supportive design & infrastructure measures: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	2.	**WALKING & CYCLING: END-OF-TRIP FACILITIES**	
	2.1	**Bicycle parking**	
REQUIRED	2.1.1	Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible *(see Official Plan policy 4.3.6)*	☑ Bicycle parking assumed mostly indoors.
REQUIRED	2.1.2	Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas *(see Zoning By-law Section 111)*	☑ Bicycle parking expected to meet/exceed requirements.
REQUIRED	2.1.3	Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored *(see Zoning By-law Section 111)*	☑ Bicycle parking to meet bylaws.
BASIC	2.1.4	Provide bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met), plus the expected peak number of customer/visitor cyclists	☑ Final number to be decided.
BETTER	2.1.5	Provide bicycle parking spaces equivalent to the expected number of commuter and customer/visitor cyclists, plus an additional buffer (e.g. 25 percent extra) to encourage other cyclists and ensure adequate capacity in peak cycling season	☐
	2.2	**Secure bicycle parking**	
REQUIRED	2.2.1	Where more than 50 bicycle parking spaces are provided for a single office building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers *(see Zoning By-law Section 111)*	☑ Bicycle parking assumed mostly indoors.
BETTER	2.2.2	Provide secure bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met)	☑ Current target.
	2.3	**Shower & change facilities**	
BASIC	2.3.1	Provide shower and change facilities for the use of active commuters	☐
BETTER	2.3.2	In addition to shower and change facilities, provide dedicated lockers, grooming stations, drying racks and laundry facilities for the use of active commuters	☐
	2.4	**Bicycle repair station**	
BETTER	2.4.1	Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	☐

		TDM-supportive design & infrastructure measures: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	3.	**TRANSIT**	
	3.1	**Customer amenities**	
BASIC	3.1.1	Provide shelters, lighting and benches at any on-site transit stops	☑
BASIC	3.1.2	Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter	☑ bus shelter pad proposed
BETTER	3.1.3	Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	☐
	4.	**RIDESHARING**	
	4.1	**Pick-up & drop-off facilities**	
BASIC	4.1.1	Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	☑ Layby proposed on Spencer St
	4.2	**Carpool parking**	
BASIC	4.2.1	Provide signed parking spaces for carpools in a priority location close to a major building entrance, sufficient in number to accommodate the mode share target for carpools	☐
BETTER	4.2.2	At large developments, provide spaces for carpools in a separate, access-controlled parking area to simplify enforcement	☐
	5.	**CARSHARING & BIKESHARING**	
	5.1	**Carshare parking spaces**	
BETTER	5.1.1	Provide carshare parking spaces in permitted non-residential zones, occupying either required or provided parking spaces *(see Zoning By-law Section 94)*	☐ To confirm
	5.2	**Bikeshare station location**	
BETTER	5.2.1	Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	☐ To confirm

	TDM-supportive design & infrastructure measures: *Non-residential developments*		Check if completed & add descriptions, explanations or plan/drawing references
	6.	**PARKING**	
	6.1	**Number of parking spaces**	
REQUIRED	6.1.1	Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	☑ Minimum parking requirement met, does not exceed maximum.
BASIC	6.1.2	Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	☐
BASIC	6.1.3	Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly *(see Zoning By-law Section 104)*	☐
BETTER	6.1.4	Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking *(see Zoning By-law Section 111)*	☐
	6.2	**Separate long-term & short-term parking areas**	
BETTER	6.2.1	Separate short-term and long-term parking areas using signage or physical barriers, to permit access controls and simplify enforcement (i.e. to discourage employees from parking in visitor spaces, and vice versa)	☐
	7.	**OTHER**	
	7.1	**On-site amenities to minimize off-site trips**	
BETTER	7.1.1	Provide on-site amenities to minimize mid-day or mid-commute errands	☐

TDM Measures Checklist:
Residential Developments (multi-family, condominium or subdivision)

Legend

BASIC — The measure is generally feasible and effective, and in most cases would benefit the development and its users

BETTER — The measure could maximize support for users of sustainable modes, and optimize development performance

★ — The measure is one of the most dependably effective tools to encourage the use of sustainable modes

		TDM measures: *Residential developments*	Check if proposed & add descriptions
	1.	**TDM PROGRAM MANAGEMENT**	
	1.1	**Program coordinator**	
BASIC ★	1.1.1	Designate an internal coordinator, or contract with an external coordinator	☑
	1.2	**Travel surveys**	
BETTER	1.2.1	Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	☐
	2.	**WALKING AND CYCLING**	
	2.1	**Information on walking/cycling routes & destinations**	
BASIC	2.1.1	Display local area maps with walking/cycling access routes and key destinations at major entrances *(multi-family, condominium)*	☑
	2.2	**Bicycle skills training**	
BETTER	2.2.1	Offer on-site cycling courses for residents, or subsidize off-site courses	☐

			TDM measures: *Residential developments*	Check if proposed & add descriptions
		3.	**TRANSIT**	
		3.1	**Transit information**	
BASIC		3.1.1	Display relevant transit schedules and route maps at entrances *(multi-family, condominium)*	☑
BETTER		3.1.2	Provide real-time arrival information display at entrances *(multi-family, condominium)*	☐
		3.2	**Transit fare incentives**	
BASIC	★	3.2.1	Offer PRESTO cards preloaded with one monthly transit pass on residence purchase/move-in, to encourage residents to use transit	☑
BETTER		3.2.2	Offer at least one year of free monthly transit passes on residence purchase/move-in	☐
		3.3	**Enhanced public transit service**	
BETTER	★	3.3.1	Contract with OC Transpo to provide early transit services until regular services are warranted by occupancy levels *(subdivision)*	☐ not applicable
		3.4	**Private transit service**	
BETTER		3.4.1	Provide shuttle service for seniors homes or lifestyle communities (e.g. scheduled mall or supermarket runs)	☐ not applicable
		4.	**CARSHARING & BIKESHARING**	
		4.1	**Bikeshare stations & memberships**	
BETTER		4.1.1	Contract with provider to install on-site bikeshare station (*multi-family)*	☑
BETTER		4.1.2	Provide residents with bikeshare memberships, either free or subsidized *(multi-family)*	☐
		4.2	**Carshare vehicles & memberships**	
BETTER		4.2.1	Contract with provider to install on-site carshare vehicles and promote their use by residents	☑
BETTER		4.2.2	Provide residents with carshare memberships, either free or subsidized	☐
		5.	**PARKING**	
		5.1	**Priced parking**	
BASIC	★	5.1.1	Unbundle parking cost from purchase price *(condominium)*	☑
BASIC	★	5.1.2	Unbundle parking cost from monthly rent *(multi-family)*	☑

			TDM measures: *Residential developments*	Check if proposed & add descriptions
		6.	**TDM MARKETING & COMMUNICATIONS**	
		6.1	**Multimodal travel information**	
BASIC	★	6.1.1	Provide a multimodal travel option information package to new residents	☑
		6.2	**Personalized trip planning**	
BETTER	★	6.2.1	Offer personalized trip planning to new residents	☐

TDM Measures Checklist:
Non-Residential Developments (office, institutional, retail or industrial)

Legend

BASIC — The measure is generally feasible and effective, and in most cases would benefit the development and its users

BETTER — The measure could maximize support for users of sustainable modes, and optimize development performance

* — The measure is one of the most dependably effective tools to encourage the use of sustainable modes

		TDM measures: *Non-residential developments*	Check if proposed & add descriptions
		1. TDM PROGRAM MANAGEMENT	
		1.1 Program coordinator	
BASIC	*	1.1.1 Designate an internal coordinator, or contract with an external coordinator	☑
		1.2 Travel surveys	
BETTER		1.2.1 Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	☐
		2. WALKING AND CYCLING	
		2.1 Information on walking/cycling routes & destinations	
BASIC		2.1.1 Display local area maps with walking/cycling access routes and key destinations at major entrances	☑
		2.2 Bicycle skills training	
		Commuter travel	
BETTER	*	2.2.1 Offer on-site cycling courses for commuters, or subsidize off-site courses	☐
		2.3 Valet bike parking	
		Visitor travel	
BETTER		2.3.1 Offer secure valet bike parking during public events when demand exceeds fixed supply (e.g. for festivals, concerts, games)	☐ not applicable

		TDM measures: *Non-residential developments*	Check if proposed & add descriptions
		3. TRANSIT	
		3.1 Transit information	
BASIC		3.1.1 Display relevant transit schedules and route maps at entrances	☑
BASIC		3.1.2 Provide online links to OC Transpo and STO information	☑
BETTER		3.1.3 Provide real-time arrival information display at entrances	☐
		3.2 Transit fare incentives	
		Commuter travel	
BETTER		3.2.1 Offer preloaded PRESTO cards to encourage commuters to use transit	☐
BETTER	*	3.2.2 Subsidize or reimburse monthly transit pass purchases by employees	☐
		Visitor travel	
BETTER		3.2.3 Arrange inclusion of same-day transit fare in price of tickets (e.g. for festivals, concerts, games)	☐ not applicable
		3.3 Enhanced public transit service	
		Commuter travel	
BETTER		3.3.1 Contract with OC Transpo to provide enhanced transit services (e.g. for shift changes, weekends)	☐ not applicable
		Visitor travel	
BETTER		3.3.2 Contract with OC Transpo to provide enhanced transit services (e.g. for festivals, concerts, games)	☐ not applicable
		3.4 Private transit service	
		Commuter travel	
BETTER		3.4.1 Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand (e.g. for shift changes, weekends)	☐ not applicable
		Visitor travel	
BETTER		3.4.2 Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand (e.g. for festivals, concerts, games)	☐ not applicable

		TDM measures: *Non-residential developments*	Check if proposed & add descriptions
		4. RIDESHARING	
		4.1 Ridematching service	
		Commuter travel	
BASIC	*	4.1.1 Provide a dedicated ridematching portal at OttawaRideMatch.com	☐
		4.2 Carpool parking price incentives	
		Commuter travel	
BETTER		4.2.1 Provide discounts on parking costs for registered carpools	☐
		4.3 Vanpool service	
		Commuter travel	
BETTER		4.3.1 Provide a vanpooling service for long-distance commuters	☐ not applicable
		5. CARSHARING & BIKESHARING	
		5.1 Bikeshare stations & memberships	
BETTER		5.1.1 Contract with provider to install on-site bikeshare station for use by commuters and visitors	☐ ✓
		Commuter travel	
BETTER		5.1.2 Provide employees with bikeshare memberships for local business travel	☐
		5.2 Carshare vehicles & memberships	
		Commuter travel	
BETTER		5.2.1 Contract with provider to install on-site carshare vehicles and promote their use by tenants	☐ ✓
BETTER		5.2.2 Provide employees with carshare memberships for local business travel	☐
		6. PARKING	
		6.1 Priced parking	
		Commuter travel	
BASIC	*	6.1.1 Charge for long-term parking (daily, weekly, monthly)	☐
BASIC		6.1.2 Unbundle parking cost from lease rates at multi-tenant sites	
		Visitor travel	
BETTER		6.1.3 Charge for short-term parking (hourly)	

		TDM measures: *Non-residential developments*	Check if proposed & add descriptions
		7. TDM MARKETING & COMMUNICATIONS	
		7.1 Multimodal travel information	
		Commuter travel	
BASIC	*	7.1.1 Provide a multimodal travel option information package to new/relocating employees and students	☑
		Visitor travel	
BETTER	*	7.1.2 Include multimodal travel option information in invitations or advertising that attract visitors or customers (e.g. for festivals, concerts, games)	☐
		7.2 Personalized trip planning	
		Commuter travel	
BETTER	*	7.2.1 Offer personalized trip planning to new/relocating employees	☐
		7.3 Promotions	
		Commuter travel	
BETTER		7.3.1 Deliver promotions and incentives to maintain awareness, build understanding, and encourage trial of sustainable modes	☐
		8. OTHER INCENTIVES & AMENITIES	
		8.1 Emergency ride home	
		Commuter travel	
BETTER	*	8.1.1 Provide emergency ride home service to non-driving commuters	☐
		8.2 Alternative work arrangements	
		Commuter travel	
BASIC	*	8.2.1 Encourage flexible work hours	☐
BETTER		8.2.2 Encourage compressed workweeks	☐
BETTER	*	8.2.3 Encourage telework	☐
		8.3 Local business travel options	
		Commuter travel	
BASIC	*	8.3.1 Provide local business travel options that minimize the need for employees to bring a personal car to work	☐
		8.4 Commuter incentives	
		Commuter travel	
BETTER		8.4.1 Offer employees a taxable, mode-neutral commuting allowance	☐
		8.5 On-site amenities	
		Commuter travel	
BETTER		8.5.1 Provide on-site amenities/services to minimize mid-day or mid-commute errands	☐