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Lansdowne 2.0 Event Centre

Transportation Impact Assessment

22/01/2025

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LANSDOWNE 2.0
EVENT CENTRE (PHASE 1)

Transportation Impact Assessment Report
Step 4 – Strategy Report

22/01/2025

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DOCUMENT CONTROL ISSUE SHEET

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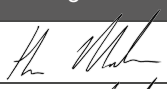
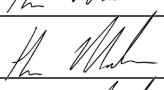
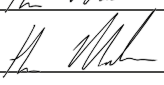
0.1	07/08/2024	AA, AD, HM	CA, AD, KL	Hassan M.	
0.2	23/08/2024	AA, AD, HM	CA, AD, KL	Hassan M.	
0.3	22/01/2025	AA, AD, HM	CA, AD, KL	Hassan M.	

Certification Form for Transportation Impact Assessment (TIA) Study

TIA Reports

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 and 2023 amendments.

Please note that the Certification is only required for the submission of a TIA. The Screening can be undertaken by a non-certified individual for the purpose of identifying if a TIA is needed or not.

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

CERTIFICATION

- ☑ 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; (Update effective July 2023)
- ☑ 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;
- ☑ 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
- ☑ I am either a licensed or registered[1] professional in good standing, whose field of expertise
  - ☑ is either transportation engineering
  - ☐ or transportation planning.

[1] 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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Revision Date: December 2023

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Stamp

EXECUTIVE SUMMARY

The City of Ottawa is proceeding with a Site Plan Control application for a new multi-purpose event centre at Lansdowne Park. This Transportation Impact Assessment (TIA) has been prepared by Momentum Transport Consultancy in support of the Lansdowne 2.0 Event Centre (Phase 1) "the development", located at 1015 Bank Street, Ottawa, K1S 3W7. The development is located within the Glebe neighbourhood of Ottawa, Ontario and is bounded by Bank Street to the west, Holmwood Avenue to the north, and Queen Elizabeth Driveway along the Rideau Canal to the east and south.

This Site Plan Application for the new event centre represents the first phase of development for the Lansdowne 2.0 project, which seeks to demolish the existing functionally obsolete north stadium stands and arena complex at Lansdowne Park and build a new world-class event centre. The Lansdowne 2.0 redevelopment plan features a new multi-purpose event centre, new north stadium stands, as well as additional residential housing, destination retail, and office space. The full buildout timeframe is slated to occur between 2032 and 2036.

This TIA document covers screening and scoping, which involve regulatory triggers, existing and planned conditions, horizon years, and exemptions. The forecasting section details updated travel demand for the development to reflect the revised Lansdowne 2.0 development concept made in September 2023. The TIA report outlines the design and accommodation for sustainable modes, circulation and access, parking, intersections, transportation demand management, and transit.

The overall Lansdowne 2.0 proposed plan includes the following phases of development:

Phase 1 (Anticipated completion of 2028) consists of building a new 5,500 seat (up to 6,500 spectators) multipurpose event centre that will be home to the OHL's Ottawa 67's, the CEBL's Ottawa BlackJacks, the PWHL Ottawa, and other indoor events such as shows and concerts.

As this phase of Lansdowne 2.0 replaces the programming provided at the existing 9,800 seat TD Place Arena, it is not expected to generate additional transportation demands to Lansdowne.

Phase 2 (Anticipated completion between 2030 and 2031) consists of replacing the existing functionally obsolete north stadium stands and arena complex at TD Place Stadium with a new 11,200 seat (12,100 spectator) north stand structure. This new facility replaces the existing north stadium stands, which currently has a capacity of 14,028 spectators, and would result in a reduction of approximately 2,000 spectator capacity at

TD Place Stadium. This venue will continue to be the home of the CFL's Ottawa RedBlacks and the CPL's Ottawa Atlético.

As this phase of Lansdowne 2.0 replaces existing programming currently provided at TD Place Stadium, it is not expected to generate additional transportation demands to Lansdowne.

Phase 3 (Anticipated completion between 2032 and 2036) represents the full build-out of Lansdowne 2.0 and consists of replacing the existing 41,000 ft^2 of commercial retail and box office annex to the Stadium on Exhibition Way with 49,635 ft^2 of new podium-level commercial retail space. This represents a net increase of 8,635 ft^2 of commercial retail space from what is currently provided today. In addition, this phase includes the construction of two new residential towers with a total of 770 new dwelling units. Additional underground parking space will be constructed by extending the existing facility to accommodate an additional 386 parking spaces to service the new residential units and additional retail space, resulting in a total of 1,766 underground parking spaces at Lansdowne.

The full build-out of Lansdowne 2.0 development is anticipated to generate between **130 and 180 net new auto trips** (two-way) during the Weekday AM, Weekday PM, and Weekend Saturday and Sunday peak periods.

Under Phase 1, which is the focus of this TIA submission, no additional trip generation demands are forecasted as the proposed multi-purpose event centre replaces the existing programming at the Arena at TD Place. It is anticipated that internal circulation and access within Lansdowne will be altered in an interim operating condition in 2028 during the construction of subsequent phases of Lansdowne 2.0.

Under the scenarios of Existing Conditions, the interim 2028 Future Conditions (i.e., the completion of the new event centre and construction of subsequent phases of Lansdowne 2.0), and the 2033 Future Conditions (Full Buildout of Lansdowne 2.0), all study area intersections are shown to operate acceptably with similar levels of services currently observed today.

In conclusion, the analysis found that Phase 1 of Lansdowne 2.0 will result in minimal impact on the area's overall traffic operations and can be accommodated within the proposed Lansdowne 2.0 concept. From a transportation standpoint, the proposed multi-purpose Event Centre can be accommodated by the future transportation network with the continued adoption of the existing comprehensive Transportation Demand Management strategy.

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1. SCREENING

1.1 Summary of Development

Table 1.1: Summary of Development

Municipal Address	1015 Bank Street, Ottawa, K1S 3W7
Description of Location	TD Place at Lansdowne, situated at the southeast quadrant of the intersection of Bank Street and Holmwood Avenue.
Land Use Classification	Mixed-Use Sports & Entertainment District (High-rise residential, retail, office, outdoor stadium, indoor arena and event centre)
Development Size (m^2) [sq-ft] {unites}	**Phase 1:** **Indoor Multi-Purpose Event Centre:** 5,500 seats (6,500 spectators) **Phase 2:** **New North Stadium Stands:** 11,200 seats (12,100 spectators) **Phase 3:** **Office**: 2,323 m^2 [25,000 sq-ft] (net increase of 1324 m^2 or 14,240 sq-ft) **Retail**: 4,611 m^2 [49,635 sq-ft] (net increase of 802 m^2 or 8,635 sq-ft) **Residential**: 770 new dwelling units
Number of Accesses and Locations	Four existing site access locations: 1. Bank Street / Exhibition Way 2. Bank Street / Marché Way 3. Queen Elizabeth Driveway / Princess Patricia Way 4. Holmwood Parking Garage Ramp (Private, Residents Only Access)
Phase of Development	Phase 1 - Event Center (2028) *Existing Land Use* Phase 2 - North Stadium Stands + Retail Podium (2029/2030) *Existing Land Use* Phase 3 – Residential Towers (2031)
Buildout Year	2032 to 2036

If available, please attach a sketch of the development or site plan to this form.

1.2 Trip Generation Triggers

Considering the Development's Land Use type and Size (as filled out in the previous section), please refer to the Trip Generation Trigger checks below.

Table 1.2: Trip Generation Trigger

Land Use Type	Minimum Development Size	Triggered
Single-family homes	40 units	✗
Townhomes or apartments	90 units	✓
Office	3,500 m^2	✗
Industrial	5,000 m^2	✗
Fast-food restaurant or coffee shop	100 m^2	✗
Destination retail	1,000 m^2	✓
Gas station or convenience market	75 m^2	✗

** If the development has a land use type other than what is presented in the table above, estimates of person-trip generation may be made based on average trip generation characteristics represented in the current edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual.* **If the proposed development size is greater than the sizes identified above, the Trip Generation Trigger is satisfied.**

1.3 Location Triggers

Table 1.3: Trip Generation Triggers

	Yes	No
Does the development propose a new driveway to a boundary street that is designated as part of the City's Transit Priority, Rapid Transit or Spine Bicycle Networks?		✗
Is the development in a Design Priority Area (DPA) or Transit-oriented Development (TOD) zone? *	✓	

**DPA and TOD are identified in the City of Ottawa Official Plan (DPA in Section 2.5.1 and Schedules A and B; TOD in Annex 6). See Chapter 4 for a list of City of Ottawa Planning and Engineering documents that support the completion of TIA).*

If any of the above questions were answered with 'Yes,' the Location Trigger is satisfied.

1.4 Safety Triggers

Table 1.4: Safety Triggers

	Yes	No
Are posted speed limits on a boundary street are 80 km/hr or greater?		✗
Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway?		✗
Is the proposed driveway 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)?		✗
Is the proposed driveway within auxiliary lanes of an intersection?		✗
Does the proposed driveway make use of an existing median break that serves an existing site?		✗
Is there is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development?		✗
Does the development include a drive-thru facility?		✗

If any of the above questions were answered with 'Yes,' the Safety Trigger is satisfied.

1.5 Screening Summary

Table 1.5: TIA Screening Summary

	Yes	No
Does the development satisfy the Trip Generation Trigger?	✓	
Does the development satisfy the Location Trigger?	✓	
Does the development satisfy the Safety Trigger?		✗

If none of the triggers are satisfied, the TIA Study is complete. If one or more of the triggers is satisfied, the TIA Study must continue into the next stage (Screening and Scoping).

2. SCOPING

2.1 Existing and Planned Conditions

2.1.1 PROPOSED DEVELOPMENT

The City of Ottawa is proceeding with a Site Plan Control application for a new multi-purpose event centre at Lansdowne Park.

Lansdowne Park is located within the Glebe neighbourhood of Ottawa, Ontario and is bounded by Bank Street to the west, Holmwood Avenue to the north, and Queen Elizabeth Driveway along the Rideau Canal to the east and south.

The new event centre replaces the existing TD Place Arena (previously known as the Ottawa Civic Centre) with a multi-purpose venue with a seated capacity of 5,500 seats (total spectator capacity of 6,500 including standing-only).

This Site Plan Application for the new event centre represents the first phase of development for the Lansdowne 2.0 project, which seeks to demolish the existing functionally obsolete north stadium stands and arena complex at Lansdowne Park and build a new world-class event centre.

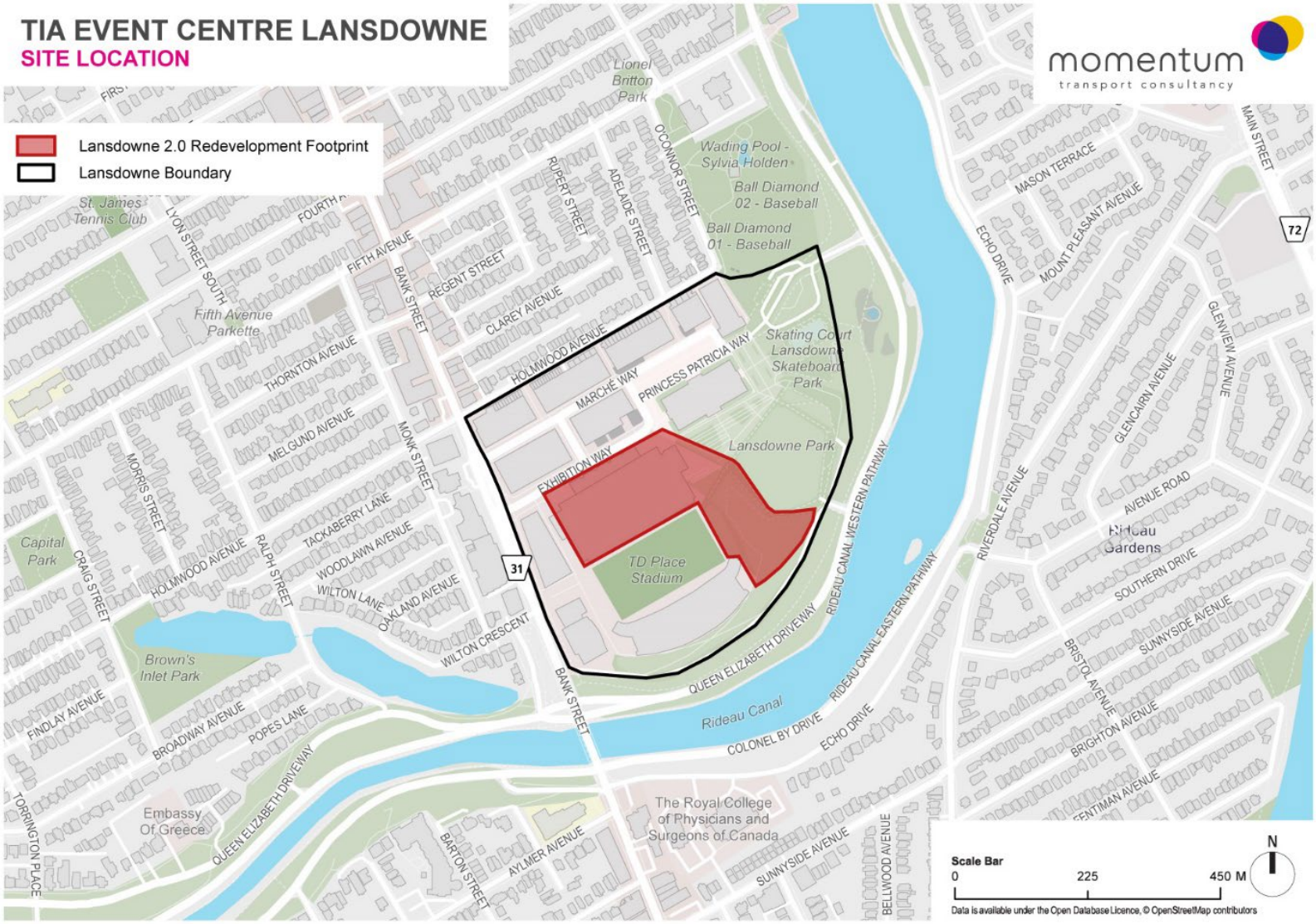
The Lansdown 2.0 redevelopment plan features a new multi-purpose event centre, new north stadium stands, as well as additional residential housing, destination retail, and office space.

Lansdowne Park currently consists of:

- TD Place Stadium: a 24,000-seat outdoor stadium that is home to the Canadian Football League's (CFL) Ottawa RedBlacks and Canadian Premier League's (CPL) Ottawa Atlético;
- TD Place Arena: a 9,800-seat indoor multipurpose venue and arena (formerly known as the Ottawa Civic Centre) home to the Ontario Hockey League's (OHL) Ottawa 67's, the Canadian Elite Basketball League's (CEBL) Ottawa BlackJacks, and the Professional Women's Hockey League's (PWHL) Ottawa team;
- 280 residential units within two condominium towers and townhomes;
- Approximately 360,000 ft^2 of destination-based commercial retail and office space; and
- An 18-acre urban park that includes the historic Aberdeen Pavilion exhibition hall and Horticulture Building.
- 1,380 space underground parking garage for public and residential use.

Figure 2.1 illustrates the site location and Lansdowne 2.0 redevelopment footprint.

Figure 2.1: Site Location



This Transportation Impact Assessment (TIA) is submitted in support of the Site Plan Application for Phase 1 of the Lansdowne 2.0 redevelopment plan.

The proposed improvements include the construction of a new 5,550 seat (6,500 attendee) multi-purpose event centre and associated public realm improvements at the Great Lawn south of the Aberdeen Pavilion. Other improvements include the provision of a dedicated layby for media and broadcast trucks south of the new event centre.

Spectator access to the new event centre will be provided at the North Main Entrance facing the Aberdeen Pavilion and Exhibition Way.

Additional gateway entrances are provided at the South Entrance (Patio) and East Entrance (Terrace) which will be used for evacuation egress, and when required for events with expanded capacity inclusive of additional floor seating and standing-only tickets (i.e. 6,500 attendees).

All event centre entrance locations connect to multi-use pathways within Lansdowne with connections to existing external pathways located on Queen Elizabeth Driveway and sidewalks on Bank Street and Holmwood Drive.

Similar to the current vehicle access and circulation arrangements at Lansdowne, vehicular access is restricted to Bank Street at Exhibition Way and Marche Way, as well as Queen Elizabeth Driveway at Princess Patricia Way.

Limited special use access is also provided at Queen Elizabeth Driveway and the Great Lawn to facilitate emergency vehicle access and limited special use by shuttle buses when permitted.

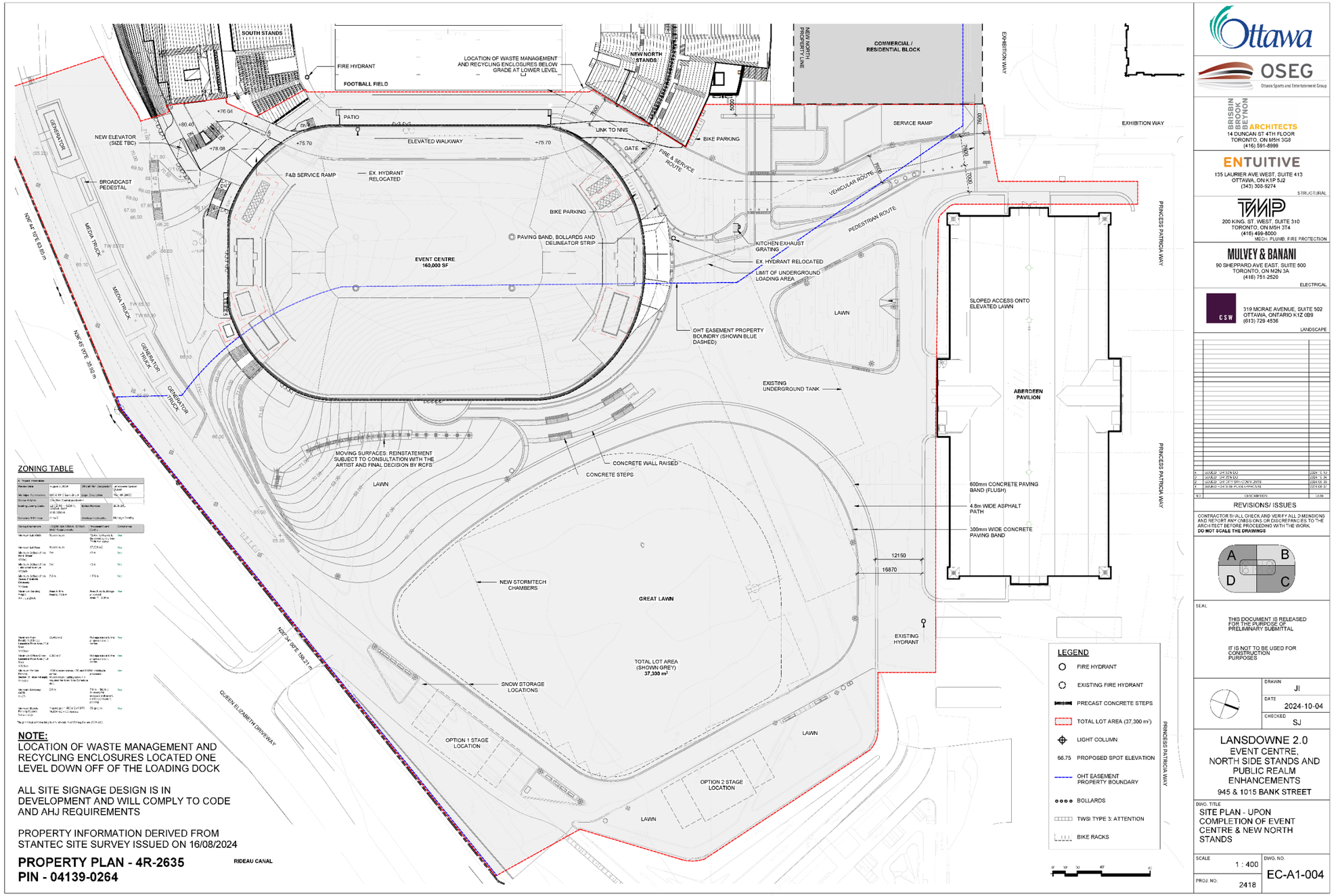
Access for deliveries and servicing will be facilitated at the Bank Street at Exhibition Way intersection and/or Marche Way. Service deliveries and garbage pickup to the new event centre will be facilitated via the existing service ramp location on Exhibition Way, which will continue to provide access to a consolidated underground loading dock and servicing bay for both the event centre and stadium.

Similar to how access is currently managed during events, truck deliveries and garbage pickup timings will be closely coordinated through the site operator as part of the traffic management plan for varying event sizes.

Truck deliveries and the load-in / load-out of shows and concerts at the new event centre will be facilitated at the existing service ramp located on Exhibition Way. The new event centre will feature a 14.6m wide entrance at Exhibition Way to provide access to the new event centre and Great Lawn, including a limited use vehicle route to allow for AODA pick-up and drop-off by ParaTranspo for patrons with mobility needs.

Figure 2.2 illustrates the proposed Site Plan for the new event centre at Lansdowne.

Figure 2.2: Lansdowne 2.0 Event Centre Site Plan



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The Lansdowne 2.0 redevelopment plan is anticipated to occur over three phases:

Phase 1:

Phase 1 consists of building a new 5,500 seat (up to 6,500 spectators) multipurpose event centre that will be home to the OHL's Ottawa 67's, the CEBL's Ottawa BlackJacks, the PWHL Ottawa, and other indoor events such as shows and concerts.

Other improvements include landscaping and public realm improvements at the Great Lawn located south of the Aberdeen Pavilion to accommodate the new event centre and allow for additional programming opportunities at Lansdowne Park.

As this phase of Lansdowne 2.0 replaces the programming provided at the existing 9,800 seat TD Place Arena, it is not expected to generate additional transportation demands to Lansdowne.

Phase 1 is anticipated to be completed in 2028.

Phase 2:

Phase 2 consists of replacing the existing functionally obsolete north stadium stands and arena complex at TD Place Stadium with a new 11,200 seat (12,100 spectator) north stand structure. This new facility replaces the existing north stadium stands, which currently has a capacity of 14,028 spectators, and would result in a reduction of approximately 2,000 spectator capacity at TD Place Stadium. This venue will continue to be the home of the CFL's Ottawa RedBlacks and the CPL's Ottawa Atlético.

This phase of Lansdowne 2.0 replaces existing programming currently provided at TD Place Stadium. As a result, it is not expected to generate additional transportation demands to Lansdowne.

Phase 2 is anticipated to be completed between 2030 and 2031.

Phase 3:

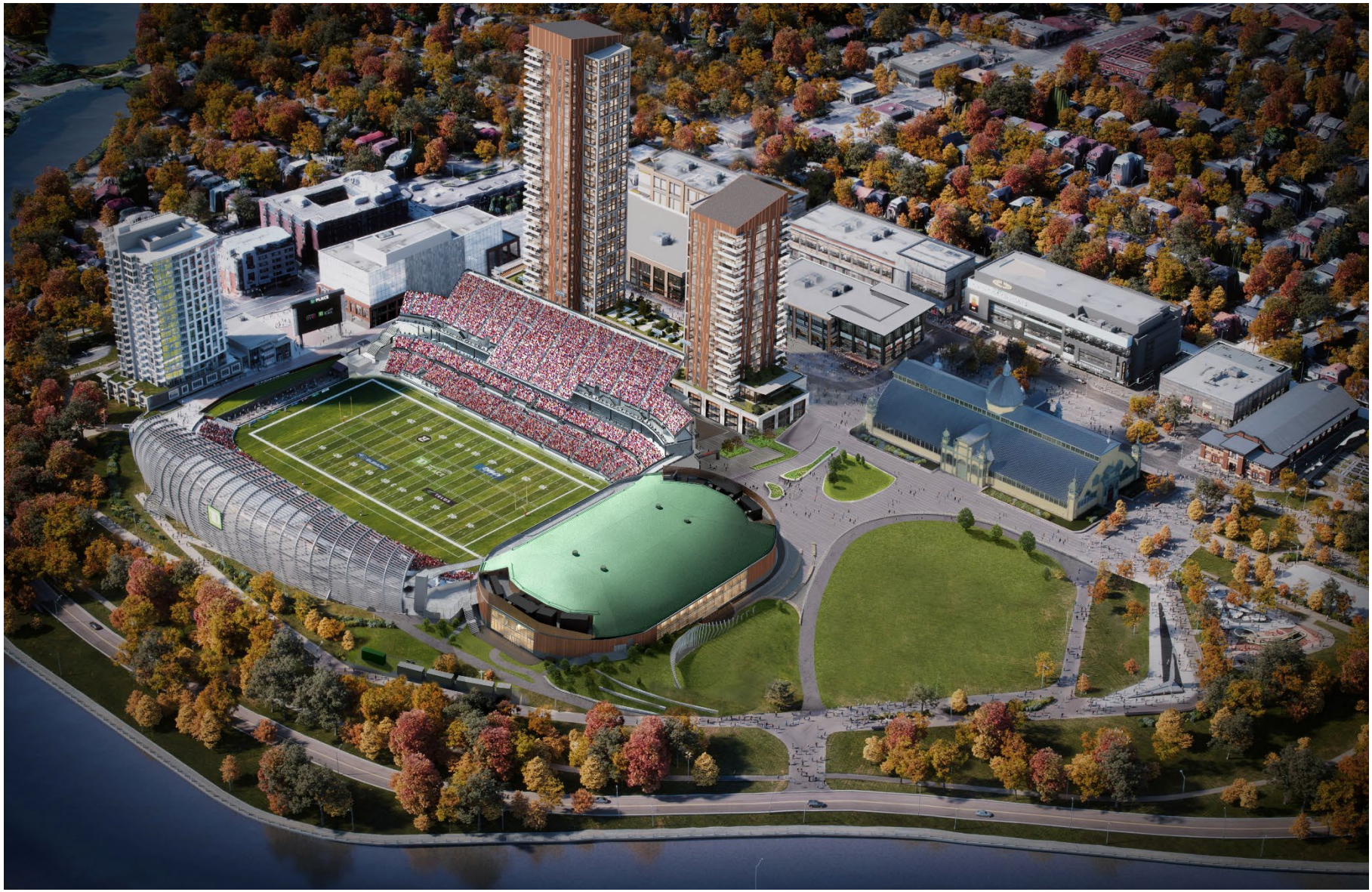
Phase 3 consists of replacing the existing 41,000 ft^2 of commercial retail and box office annex to the Stadium on Exhibition Way with 49,635 ft^2 of new podium-level commercial retail space. This represents a net increase of 8,635 ft^2 of commercial retail space from what is currently provided today.

In addition, this phase includes the construction of two new residential towers with a total of 770 new dwelling units. Additional underground parking space will be constructed by extending the existing facility to accommodate an additional 386 parking spaces to service the new residential units and additional retail space, resulting in a total of 1,766 underground parking spaces at Lansdowne. Underground parking will continue be accessed at existing access ramps located on Exhibition Way, and Princess Patricia Way near Queen Elizabeth Driveway.

Phase is anticipated to be completed between 2032 and 2036.

Figure 2.3 illustrates a rendering of the Lansdowne 2.0 redevelopment concept.

Figure 2.3: Lansdowne 2.0 Redevelopment Concept



The site currently carries three different zoning designations. The western portion of the proposed site is zoned L2C S258-A S258-B and as outlined in the City of Ottawa's Zoning By-Law, the purpose of the L2 – Major Leisure Facility Zone is to:

- Accommodate major, urban City-wide sports, recreational and cultural facilities addressed under the Major Urban Facilities policies of the Official Plan.
- Permit a broad range and intensity of leisure, recreational, cultural and related uses; and
- Allow a moderate density and scale of development.

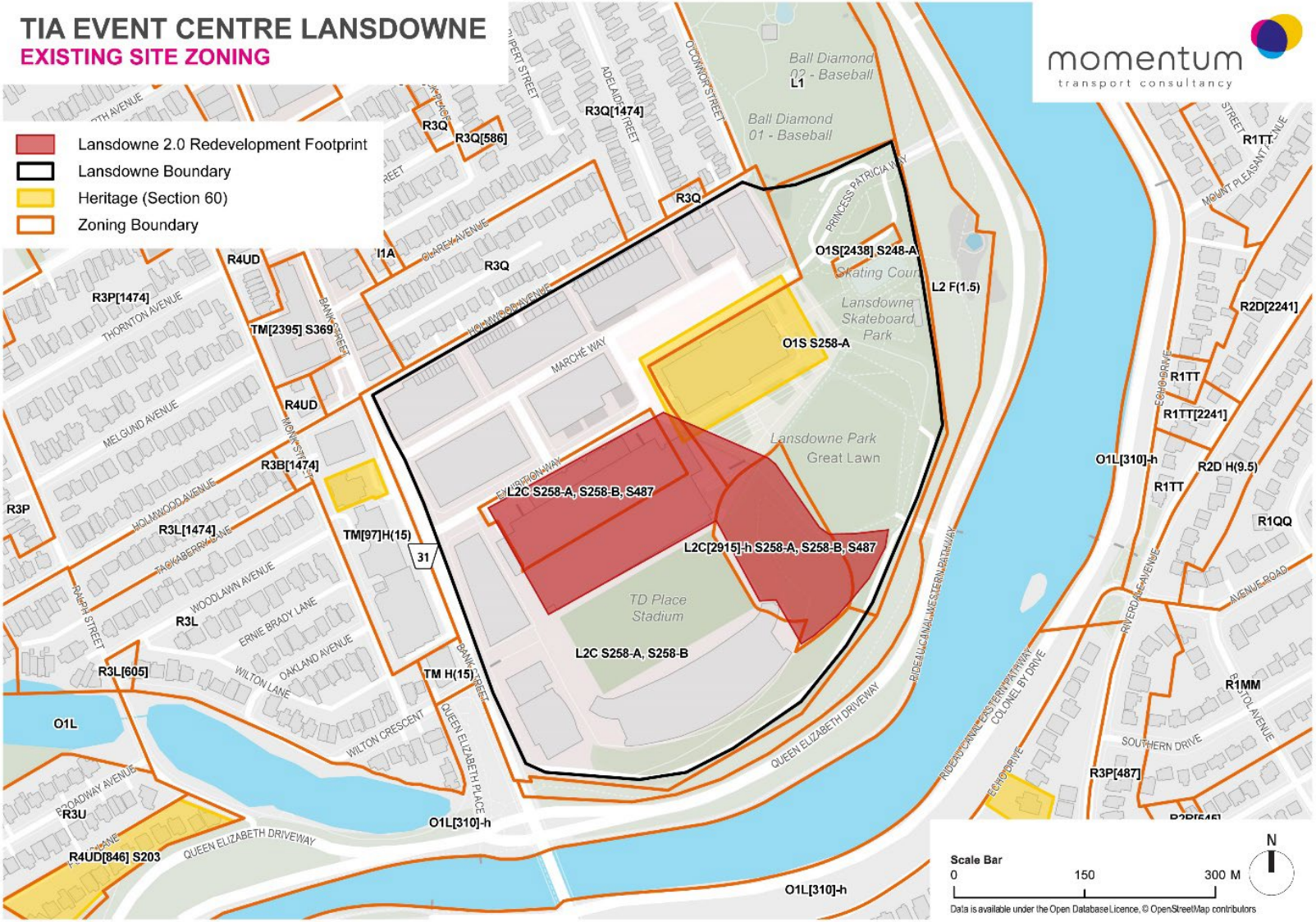
The eastern portion of the proposed site is zoned O1S S258-A and as outlined in the City of Ottawa's Zoning By-Law, the purpose of the O1- Parks and Open Space Zone is to:

- Permit parks, open space and related and compatible uses to locate in areas designated as General Urban Area, General Rural Area, Major Open Space, Mixed Use Centre, Village, Greenbelt Rural and Central Area as well as in Major Recreational Pathway areas and along River Corridors as identified in the Official Plan, and
- Ensure that the range of permitted uses and applicable regulations is in keeping with the low scale, low intensity open space nature of these lands.

Following the Lansdowne 2.0 Zoning By-Law Amendment (ZBA) application and subsequent changes made in November 2023, the parcel east of TD Place Stadium was zoned as L2C[2915]-h S258-A, S258-B, S487 to permit a broad range and intensity of leisure, recreational, cultural and related uses including sports arenas.

Figure 2.4 illustrates the existing site zoning at Lansdowne.

Figure 2.4: Existing Site Zoning



2.1.2 EXISTING CONDITIONS

Roads and Traffic Control

The roadways and intersections under consideration in the study area are described below:

- **Bank Street**: Bank Street is a four-lane arterial roadway with a posted speed limit of 40 km/h. The street is under the jurisdiction of the City of Ottawa. Sidewalks are provided on both sides of Bank Street. The roadway is designated as a Local Cycling Route as per the City of Ottawa's Bike Plan and is also designated as a truck route. Bank Street currently provides two access connections to Lansdowne with a signalized, full access movement at Exhibition Way, and an unsignalized right-in/right-out only access at Marché Way. On-Street parking is permitted north of Holmwood Avenue. On-street parking on Bank Street across the frontage of the subject site is prohibited at all times. As part of the Bank Street Canal Bridge Rehabilitation Project, 1.5m cycle tracks have been implemented on both sides of the Bank Street Bridge between Exhibition Way and Aylmer Avenue in conjunction with a 3-lane cross-section (2 northbound lanes, 1 southbound lane). Other than the newly installed cycling lanes on the Bank Street Bridge, there is a northbound bike lane on Bank Street across the frontage of the site.

- **Queen Elizabeth Driveway:** Queen Elizabeth Driveway is a two-lane scenic parkway that runs along the Rideau Canal and has a posted speed limit of 40 km/h. The parkway is a federal roadway under the jurisdiction of the National Capital Commission (NCC). In the vicinity of Lansdowne, the parkway features multi-use pathways on both sides. Queen Elizabeth Driveway is designated as a Major Pathway as per the City of Ottawa Bike Plan. The parkway currently provides two access connections to Lansdowne with an unsignalized, full-movements intersection at Princess Patricia Way, as well as a restricted special-use access located on the south side at the Great Lawn. On-street parking on Queen Elizabeth Driveway is prohibited at all times.

- **Fifth Avenue:** Fifth Avenue is a two-lane collector roadway with a posted speed limit of 40 km/h east of Bank Street, and a posted speed limit of 30km/h west of the Bank Street. There are existing sidewalks along both sides of the roadway. The south side of Fifth Avenue features an on-street cycling lane. The roadway is designated as a Local Route per the City of Ottawa Bike Plan. On-street parking on Fifth Avenue in the vicinity of the subject site is permitted on the northside of the roadway.

- **Holmwood Avenue:** Holmwood Avenue is a two-lane local road with a default speed limit of 30 km/h. East of the intersection with Bank Street, Holmwood Avenue is a one-way street providing access in the eastbound direction. The road features a cycling lane on the northside. West of the Bank Street intersection, Holmwood Avenue is a two-way street. On-street parking on Holmwood Avenue in the vicinity of the subject site is permitted on the southside of the roadway. Holmwood Avenue also includes access to the underground parking garage at Lansdowne what is restricted for residential uses only, and occasionally provides limited exit from the site during major events at Lansdowne.

- **Exhibition Way:** Exhibition Way is a two-way private roadway that functions as the primary access point to Lansdowne and TD Place. The intersection with Bank Street is signalized with an auxiliary left turn lane in the southbound direction. There are existing sidewalks along both sides of the roadway. There are auxiliary left and right turn lanes in the west bound direction. Designated on-street parking spaces are provided with varying time limits.

- **Marché Way:** Marché Way is a two-way private roadway that functions as the secondary access point to Lansdowne and TD Place. The intersection with Bank Street is unsignalized and functions as a right-in/right-out only access connection. There are existing sidewalks along both sides of the roadway. Designated on-street parking spaces are provided with varying time limits.

- **Wilton Crescent:** Wilton Crescent is a two-lane local roadway with a posted speed limit of 30 km/h. Left turn movements from Wilton Crescent to Bank Street are prohibited at all times. The intersection with Bank Street is stop controlled along Wilton Crescent. There are existing sidewalks along both sides of the roadway. Across the frontage of the subject site. Wilton Crescent was recently reconstructed with wider sidewalks, and bike lanes between Monk Street and Bank Street. On-street parking is permitted on the northside of the roadway at specific times.

- **Echo Drive:** Echo Drive is a one-lane local roadway with a default speed limit of 40 km/h. Through and left turns off Echo Drive are prohibited. Echo Drive is a one-way road stop controlled along Echo Drive. The roadway has a sidewalk on the northside.

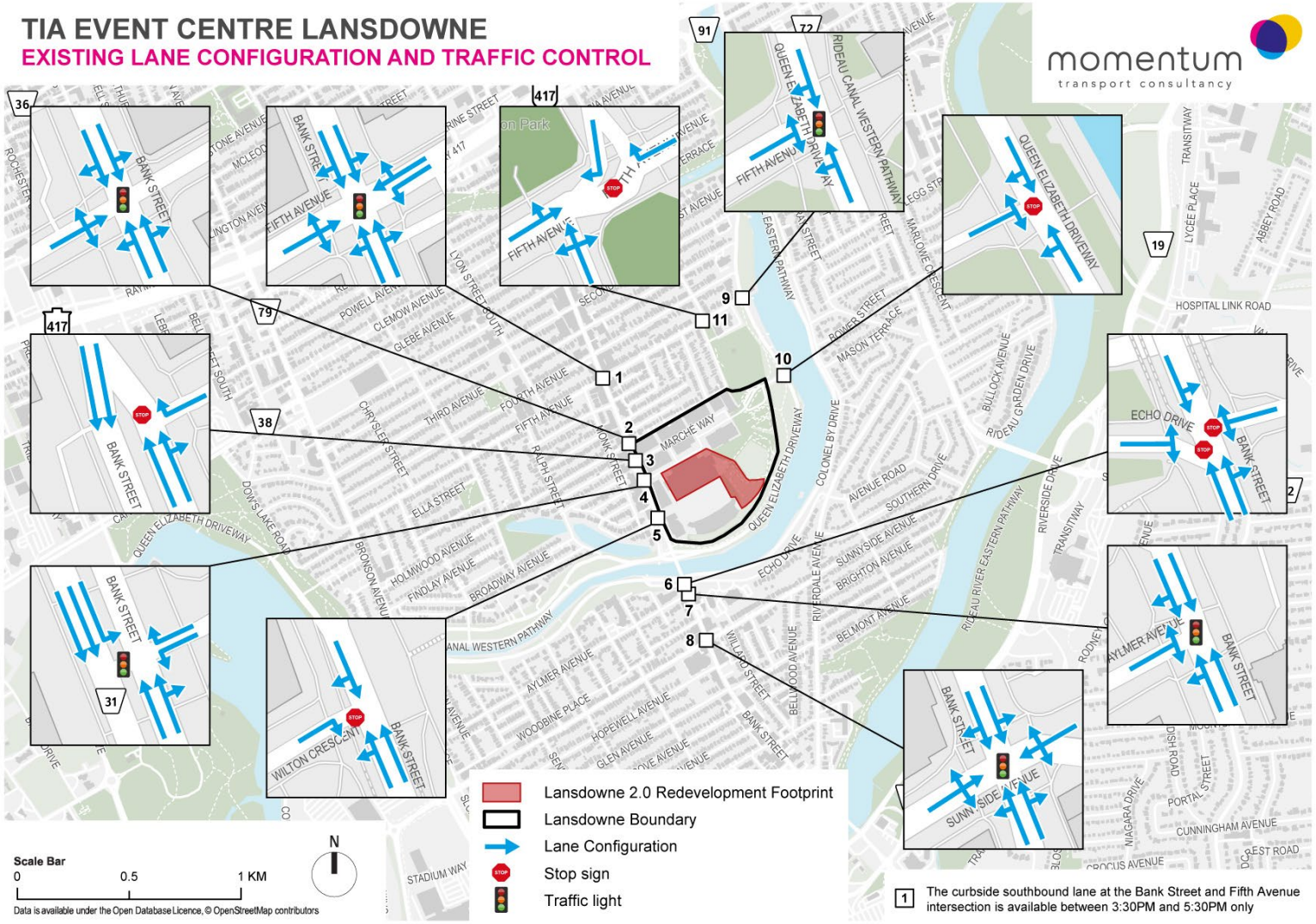
- **Aylmer Avenue:** Aylmer Avenue is a two-lane local roadway with a posted speed limit of 30 km/h. Sidewalks are provided along both sides of Aylmer Avenue. There is an eastbound bike lane on Aylmer Avenue (on the south side of the street). On-street parking is permitted on the north side of the roadway.

- **Sunnyside Avenue:** Sunnyside Avenue is a two-lane collector roadway with a posted speed limit of 30 km/h. The roadway west of the intersection with Bank Street is designated as local route as per the City of Ottawa Bike Plan. On-street parking is permitted on the southside of the roadway west of the intersection with Bank Street.

- **O'Connor Street:** O'Connor Street is a two-lane local roadway with a posted speed limit of 30 km/h. The roadway is designated as a local route as per the City of Ottawa Bike Plan. South of Fifth Avenue, O'Connor Street is a one-way local road with a dedicated contraflow bike lane on the west side and on-street parking permitted on the east side. North of Fifth Avenue, O'Connor Street is a two-way local road with on-street parking permitted on the east side.

Figure 2.5 illustrates the existing lane configuration and traffic control.

Figure 2.5: Existing Lane Configuration and Traffic Control



Walking and Cycling

The study area is adequately connected to pedestrian facilities with sidewalks along all study area roadways.

There are currently dedicated bike lanes on Fifth Avenue (east of Bank Street), Aylmer Avenue, and Holmwood Avenue (east of Bank Street) which forms a connection to the O'Connor Street bike lanes and cycle tracks.

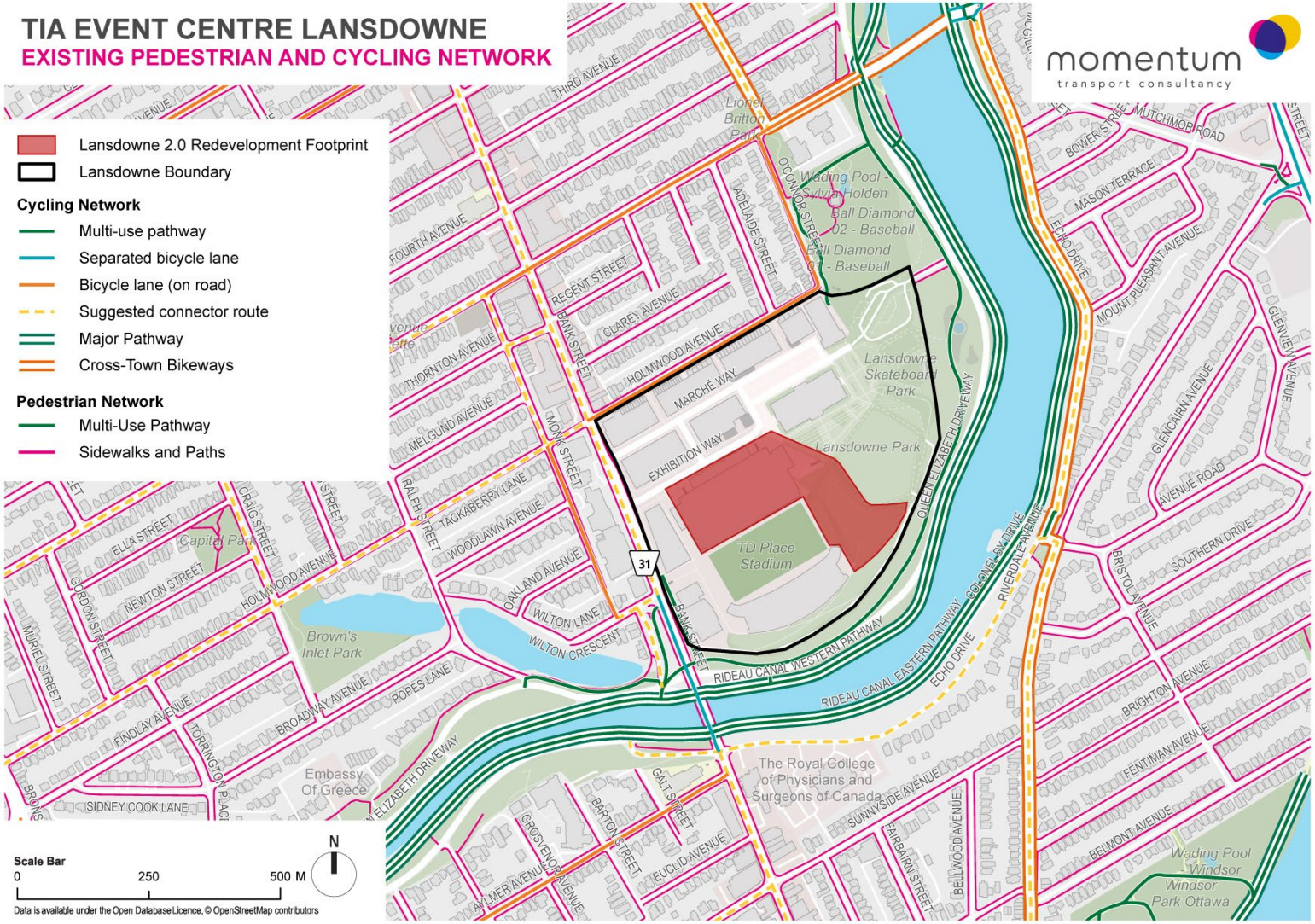
Queen Elizabeth Driveway, which is under the jurisdiction of the NCC, features off-street multi-use pathways.

The Flora Footbridge connection, which was opened in June 2019, provides a cycling and walking connection on both sides of the Rideau Canal at Fifth Avenue / Clegg Street. 1.5m cycle tracks have been implemented on both sides of the Bank Street Bridge between Exhibition Way and Aylmer Avenue.

The Ultimate Cycling Network from the 2013 Ottawa Cycling Plan has now been superseded by the 2023 Transportation Master Plan and the updated Crosstown Bikeway Network. Fifth Street between O'Connor and the Rideau Canal is designated as Crosstown Bikeway, and the Queen Elizabeth Driveway multi-use path (Rideau Canal Western Pathway) is designated NCC Pathway.

Figure 2.6 illustrates existing and planned pedestrian and cycling facilities within the vicinity of Lansdowne.

Figure 2.6: Existing Pedestrian and Cycling Network



Transit

OC Transpo transit service is currently provided at Lansdowne through OC Transpo bus routes 6 and 7.

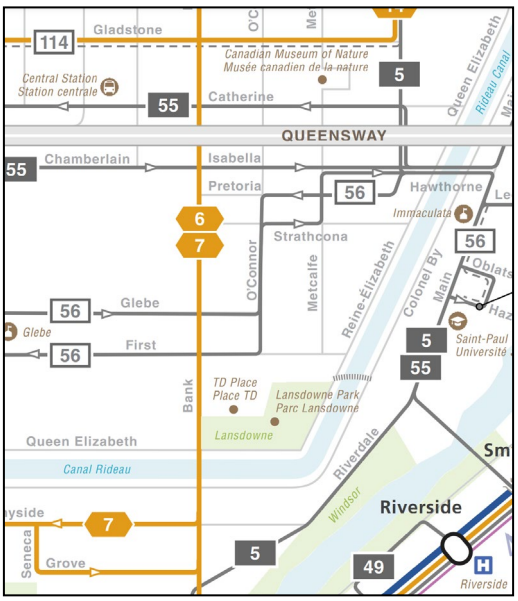
Route 6 is a Frequent Route that runs 7 days per week in all time periods between Greenboro and Rockcliffe. It runs with 15-minute headways or less during the weekday peak periods and 15-minute or less headways during the weekend peak periods.

Route 7 is a Frequent Route that runs 7 days per week in all time periods between Carleton University and St. Laurent. It runs with 15-minute headways or less during both peak periods during weekdays and 15-minutes or less headways during the weekend peak.

Bus stops are provided at the intersection of Bank Street and Exhibition Way.

Figure 2.7 illustrates transit routes in the vicinity of Lansdowne.

Figure 2.7: Study Area Transit Route and Stops

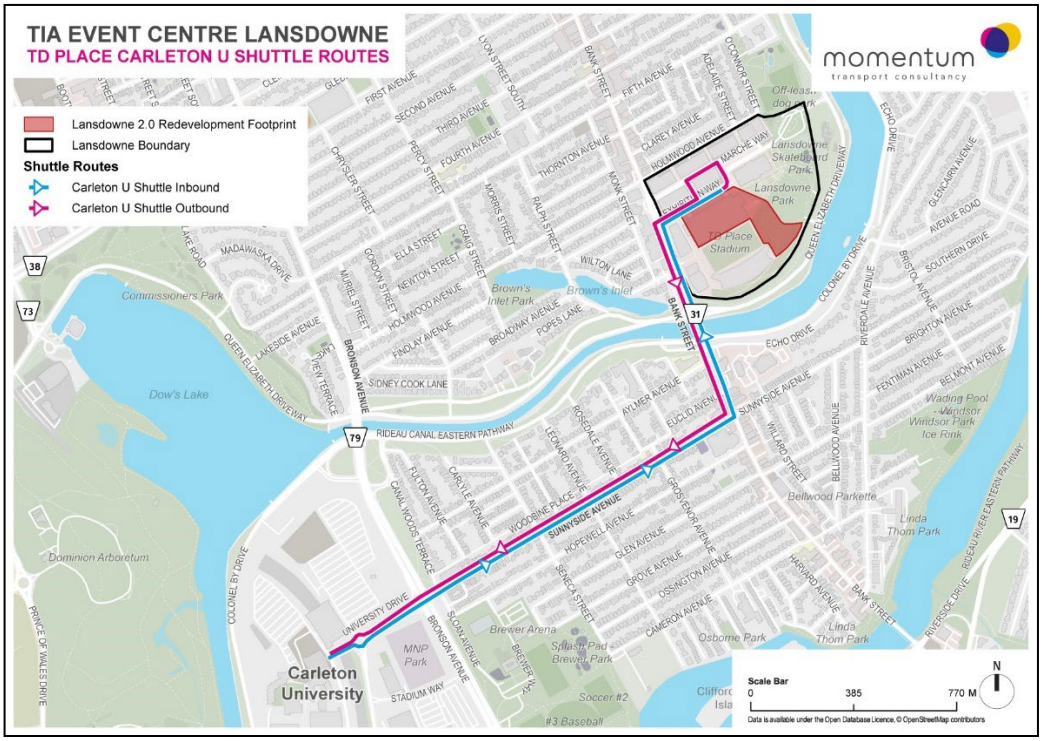


Enhanced transit services are provided to support special events at Lansdowne and TD Place. This includes the provision of free transit to ticketholders for all events held at Lansdowne through an innovative program that is the first of its kind for large venues. The cost of transit service is free of charge for event goers and is bourn by the Ottawa Sports and Entertainment Group (OSEG) for any service enhancements provided for events with 5,000 or more attendees. Transit service for special events includes providing supplemental trips on OC Transpo routes 6 and 7 for minor events with attendance levels of 10,000 or less.

For Ottawa 67's and PHWL Ottawa games, park & shuttle service is provided to ticket holders from Carleton University. Ticket holders can park at Carleton University starting 90 minutes before the start of Ottawa 67's and PHWL Ottawa games with services provided until 60 minutes post-games. The cost of parking and shuttle service is free to ticket holders and is bourn by OSEG. Shuttle bus service is provided from Carleton University's P18 Parkade with service provided to Lansdowne provided through Sunnyside Avenue and Bank Street.

Figure 2.8 illustrates the Carleton U shuttle route for Ottawa 67's and PWHL Ottawa games.

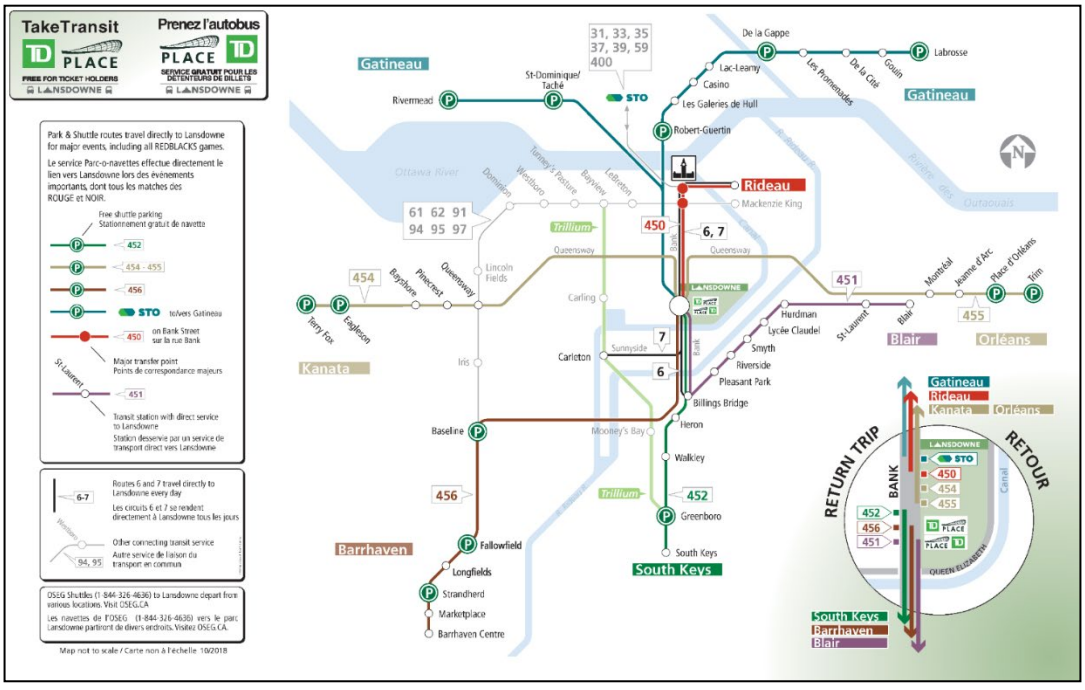
Figure 2.8: Carleton U Park & Shuttle Route (Ottawa 67's and PWHL Ottawa)



For major events, which include events with 10,000 or more attendees, dedicated Park & Shuttle services is provided with event day services provided from OC Transpo Park & Ride locations, as well as privately run shuttles operated by OSEG. Major event transit service typically starts two hours prior to the start of a ticketed evet for ingress service, and two hours after the end of a ticketed event for egress service.

Figure 2.9 illustrates special event transit and shuttle services to TD Place.

Figure 2.9: Enhanced Transit and Shuttle Service to TD Place



Traffic Management Measures

Traffic management measures are deployed at Lansdowne to manage traffic flow for day-to-day operations as well as during special events. Under regular day-to-day operations, vehicle access to the site is permitted on both Bank Street and Queen Elizabeth Driveway. Internal vehicle circulation is permitted through the site on Exhibition Way, Marche Way, and Princess Patricia Way, with the exception of a portion of Princess Patricia Way near the Aberdeen Pavilion that is a pedestrian-only zone. Other internal circulation pathways including Frank Clare Lane and the Great Lawn which are restricted use-only for emergency vehicles, deliveries, and accessible transit service (i.e. ParaTranspo) when required.

For minor events, such as events at TD Place Arena, vehicle access is permitted on both Bank Street and Queen Elizabeth Driveway. Depending on programming activities at TD Place and Lansdowne Park, traffic management measures to reduce vehicular through traffic on Exhibition Way are deployed to re-route internal traffic circulation to Marche Way, where pedestrian activity is lower.

For major events, traffic management measures include the deployment of traffic control devices and police point duty along Bank Street and Queen Elizabeth Driveway to help manage traffic flow and accommodate safe pedestrian crossings. Vehicle access to the site is restricted during major events at the stadium, such as football games, to minimize pedestrian and vehicle conflicts. Vehicle access from Bank Street is restricted at both Exhibition Way and Marche Way. Vehicle access is only permitted at the Queen Elizabeth Driveway access for underground parking garage and pick-ups / drop-offs at the shuttle loop. Vehicle circulation through the site is restricted. While access to Lansdowne is restricted during major events, existing retail patrons and residents continue to access the underground parking facility at Lansdowne from Queen Elizabeth Driveway, which is designated as a 'Federally Owned Road' per Schedule C4 of the Official Plan. In addition, residents are able to access underground parking through a residents-only underground garage ramp on Holmwood Avenue. In addition, on-street parking on Bank Street is temporarily prohibited during large events in order to support special event enhanced transit and shuttle service operations to TD Place.

Lansdowne is designated as a pedestrian-priority zone and features many pedestrian-only pathways and connections. This includes pathway connections from Queen Elizabeth Driveway, a stairway gate entrance on Bank Street by TD Place Gate 1, and several laneways connecting to Holmwood Avenue at the northern side of the district.

Existing site access and internal circulation areas during normal operations, minor events, and major events are illustrated in Figure 2.10 through Figure 2.12.

Figure 2.10: Existing Internal Site Circulation

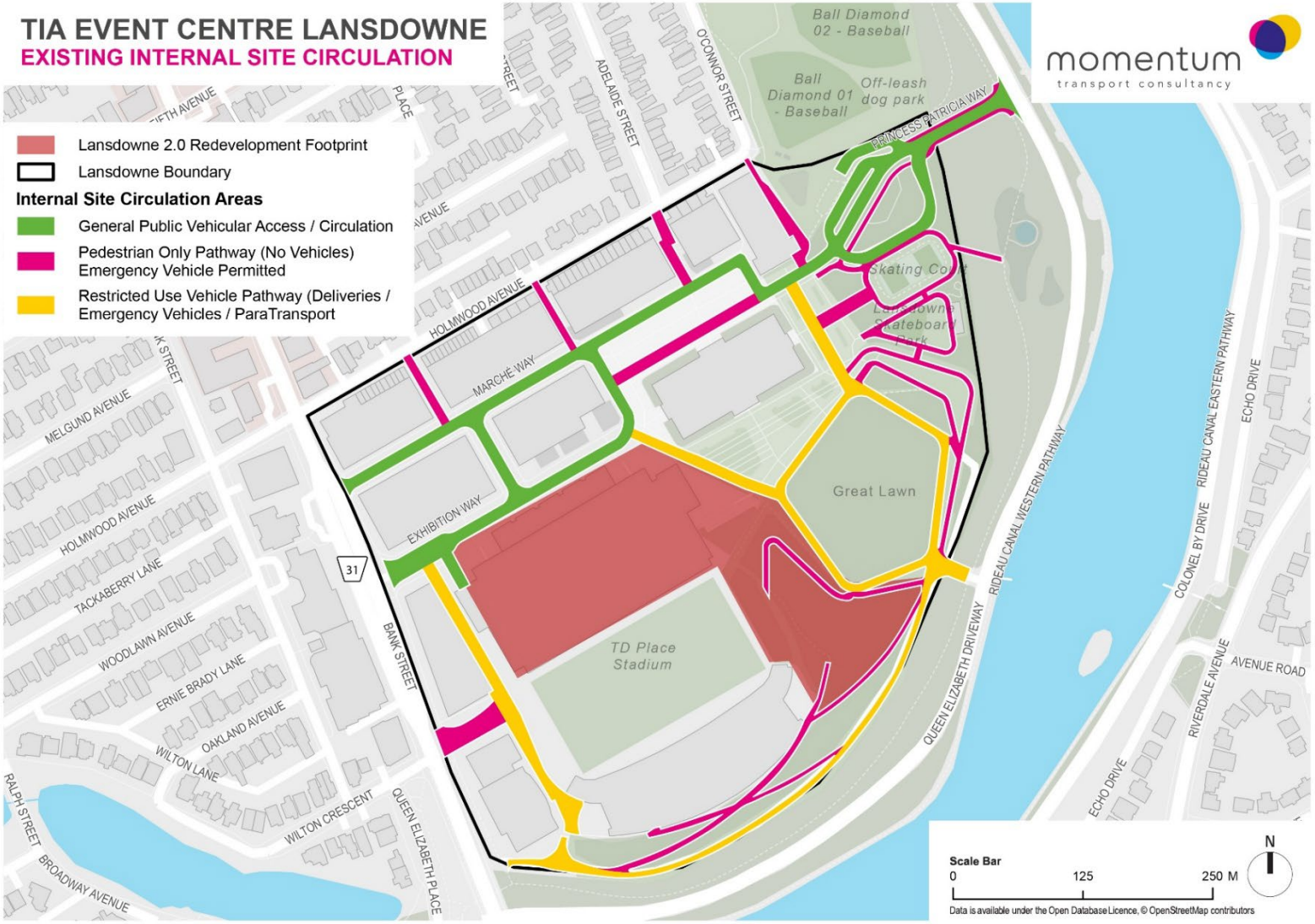


Figure 2.11: Existing Internal Site Circulation (Minor Events)

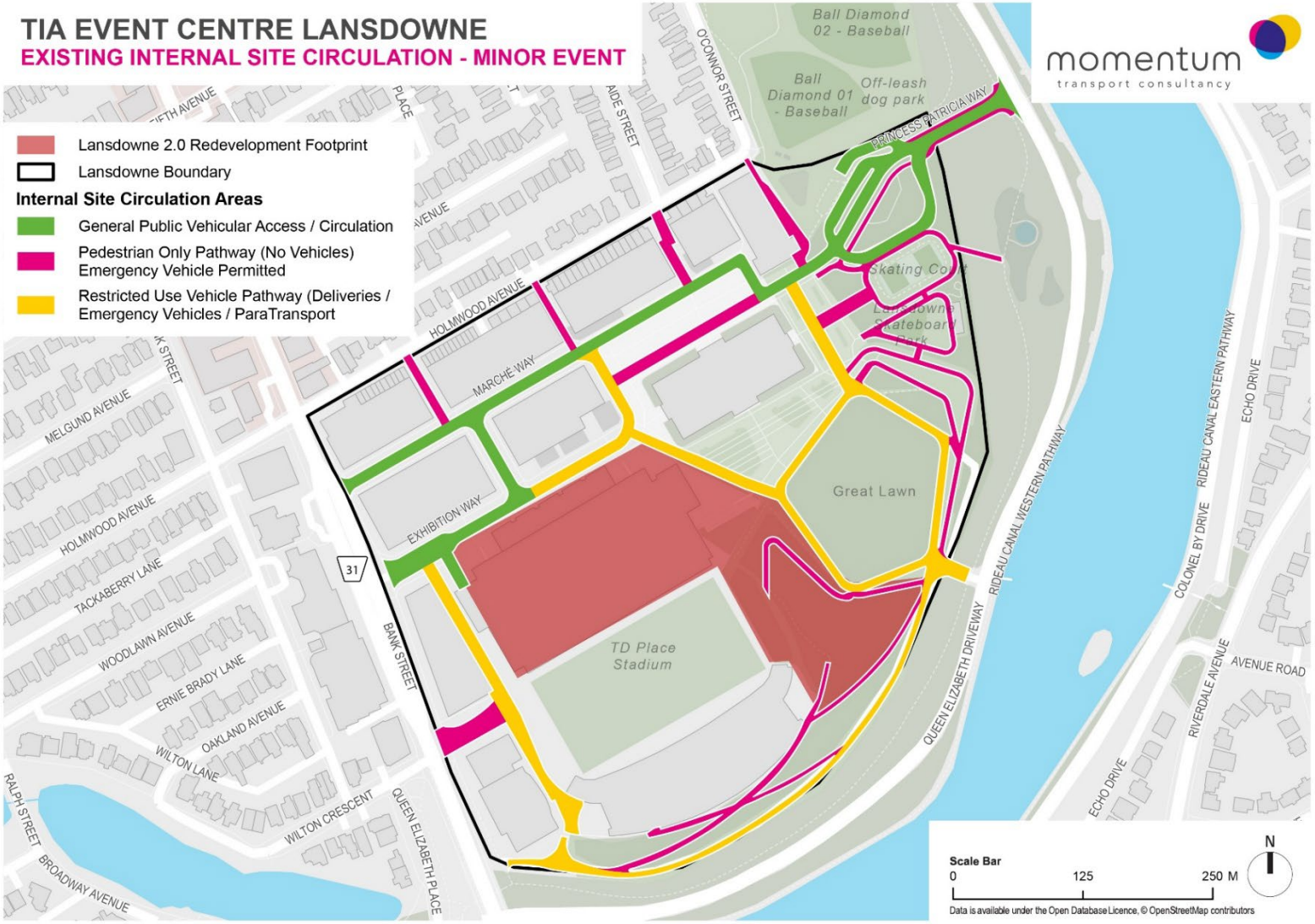
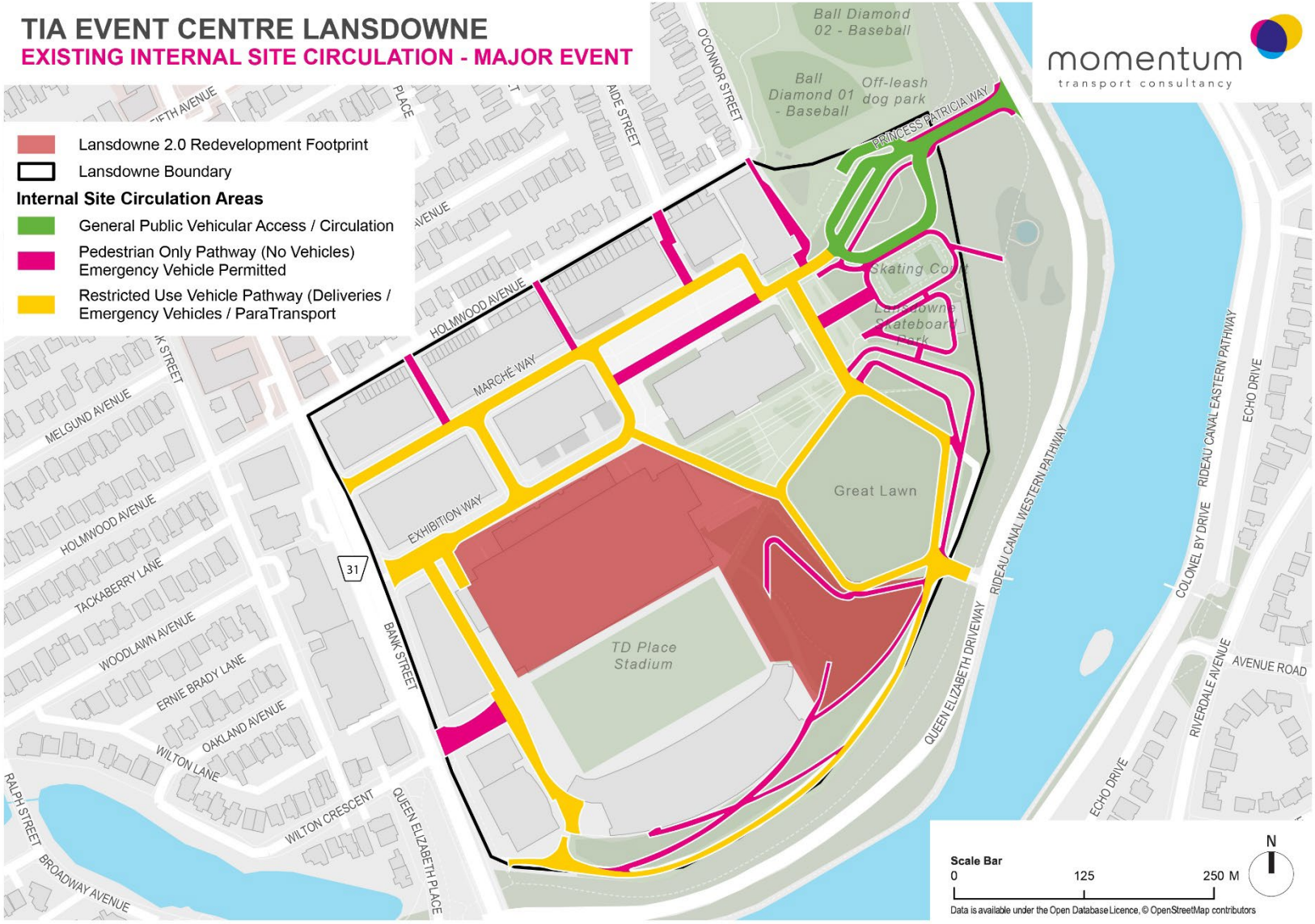


Figure 2.12: Existing Internal Site Circulation (Major Events)



Traffic Volumes

Recently collected intersection traffic data were obtained from the City of Ottawa. This included traffic data captured for regular weekdays (AM and PM peak periods), a weekday minor event at TD Place Arena, a weekday major event at TD Place Stadium, as well as the Saturday and Sunday weekend mid-day peaks with concurrent programming and events at TD Place and Lansdowne Park. Traffic data was obtained for the following periods:

Typical Weekday Period (AM/PM Peak):

- Tuesday, May 3rd, 2022 / Wednesday, May 11th, 2022 (Weekday AM and PM).

Weekend Saturday Peak Period (Mid-Day Peak):

- Saturday, May 7th, 2022 (Saturday Mid-Day), representative of multi-event activity at Lansdowne including an Atlético Ottawa soccer match at TD Place Stadium (6:00 pm kick-off) with an attendance of 3,555 spectators.

Weekend Sunday Peak Period:

- Sunday, June 9th, 2024 (Sunday Mid-Day), representative of multi-event activity at Lansdowne inclusive of the weekly Ottawa Farmer's Market, retail activity, and three back-to-back events at TD Place Arena for the Volleyball Nations League (VNL) featuring tournament games throughout the day (11:00 am, 2:30 pm, and 6:00 pm matches). Traffic captures on this day also reflects altered traffic patterns resulting from the planned closure of Queen Elizabeth Driveway between Somerset Street and Fifth Avenue as part of the National Capital Commission Weekend Bikedays programming on the driveway.

Minor Arena Event:

- Monday, May 9th, 2022 (Special Event Concert at the Arena at TD Place. Start time of 7:30 pm, End time of 10:30 pm.

Major Stadium Event:

- Friday, October 14th, 2022 (REDBLACKS Football Game at TD Place. Start time of 7:30pm, End time of approximately 10:30pm.

Intersection turning movement count summary data for the various time periods collected are Illustrated in Figure 2.13 through Figure 2.27.

Turning movement count data is documented in **Appendix A**.

Figure 2.13: Existing Weekday AM and PM Traffic Volumes

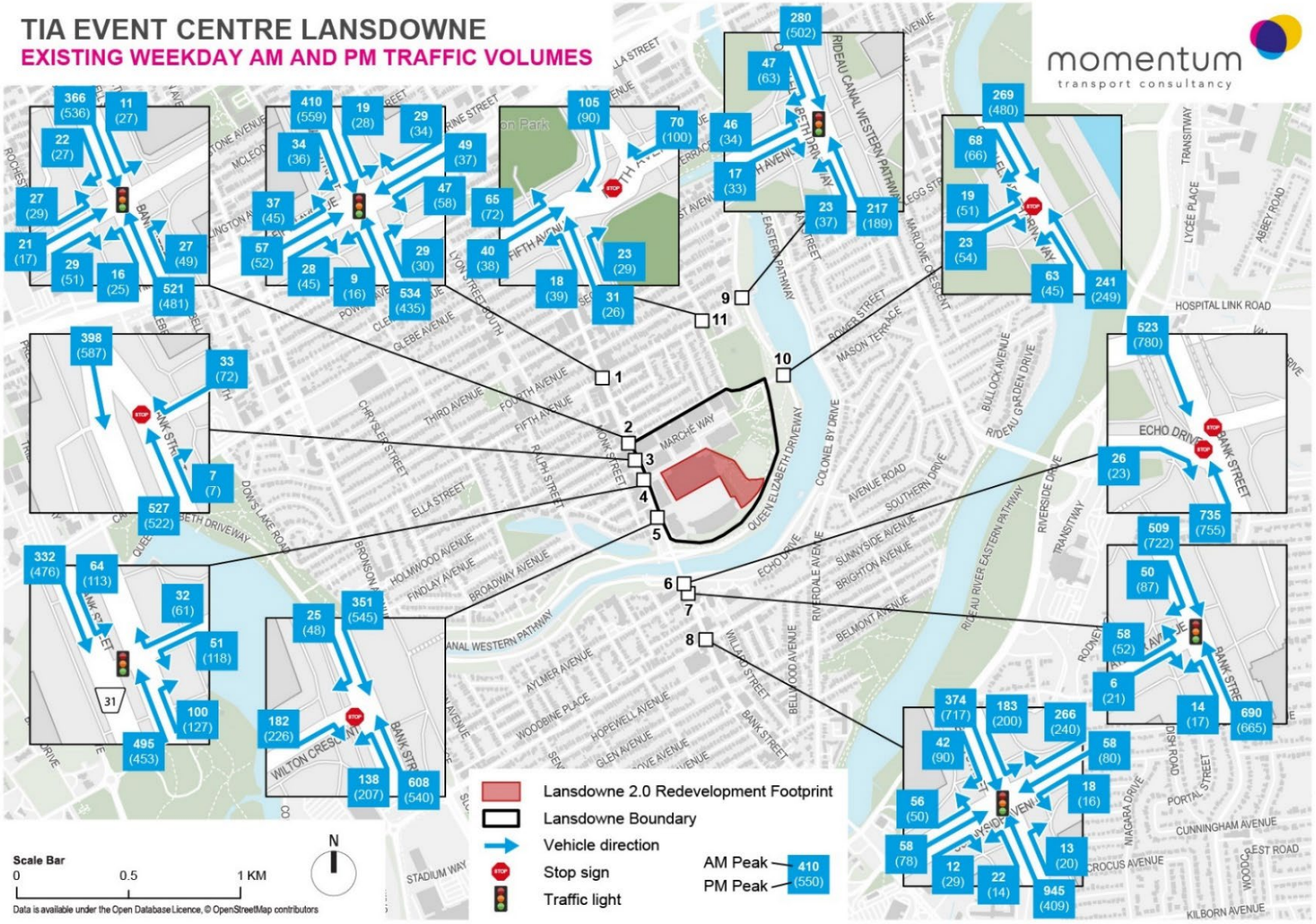


Figure 2.14: Existing Weekday AM and PM On-site Traffic Volumes

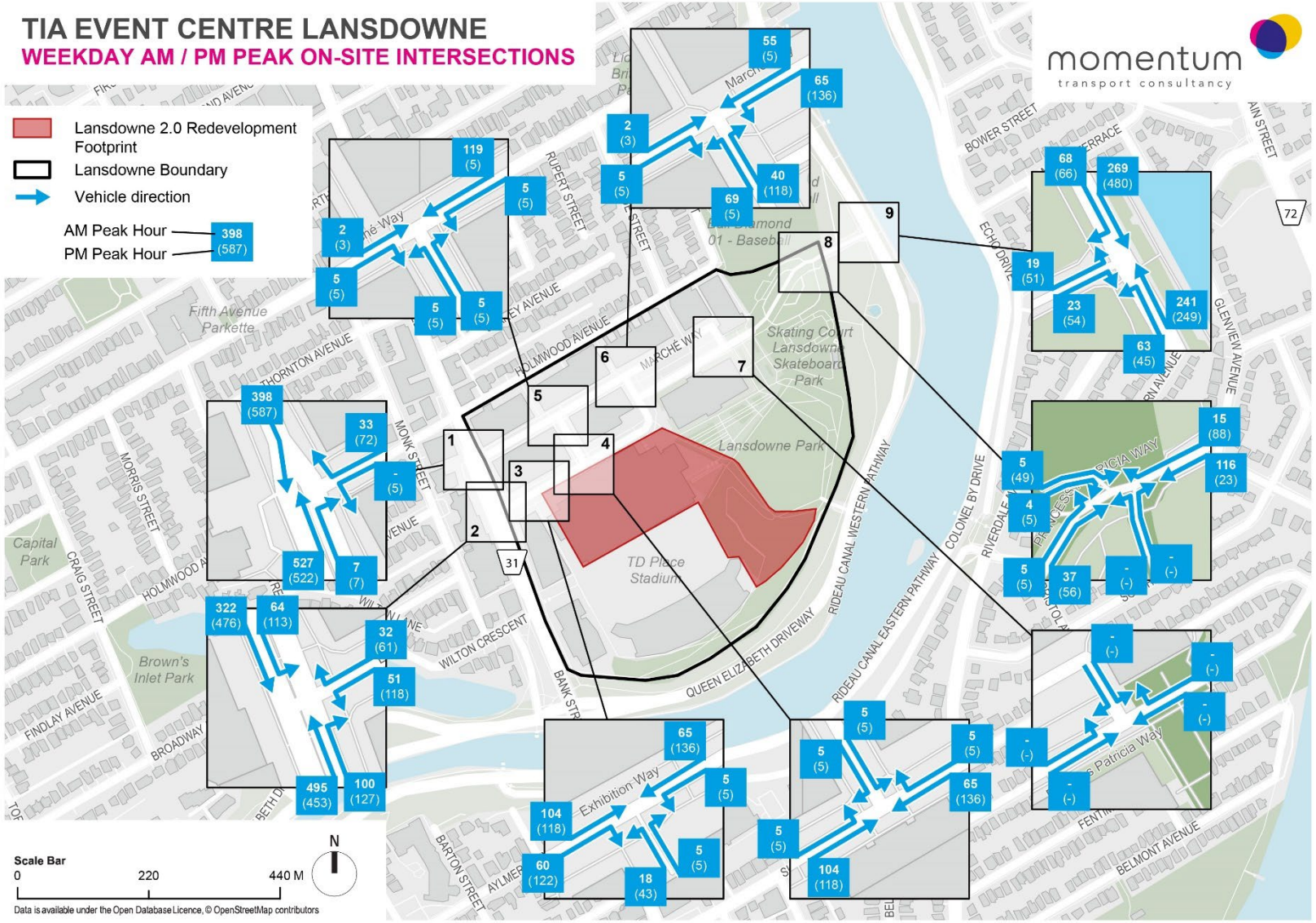


Figure 2.15: Existing Weekday/Weekend Pedestrian Volumes

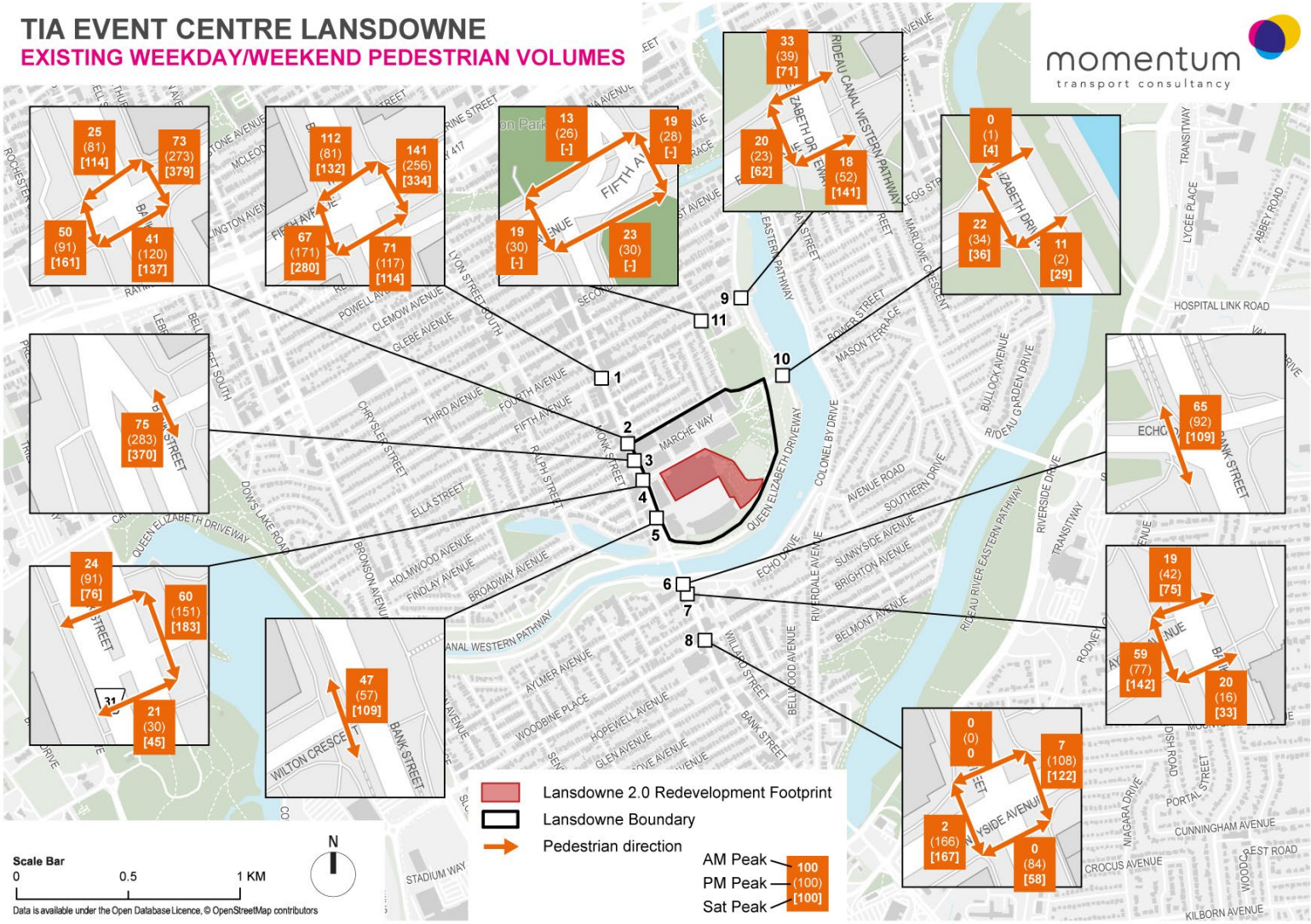


Figure 2.16: Existing Weekday/Weekend Bicycle Volumes

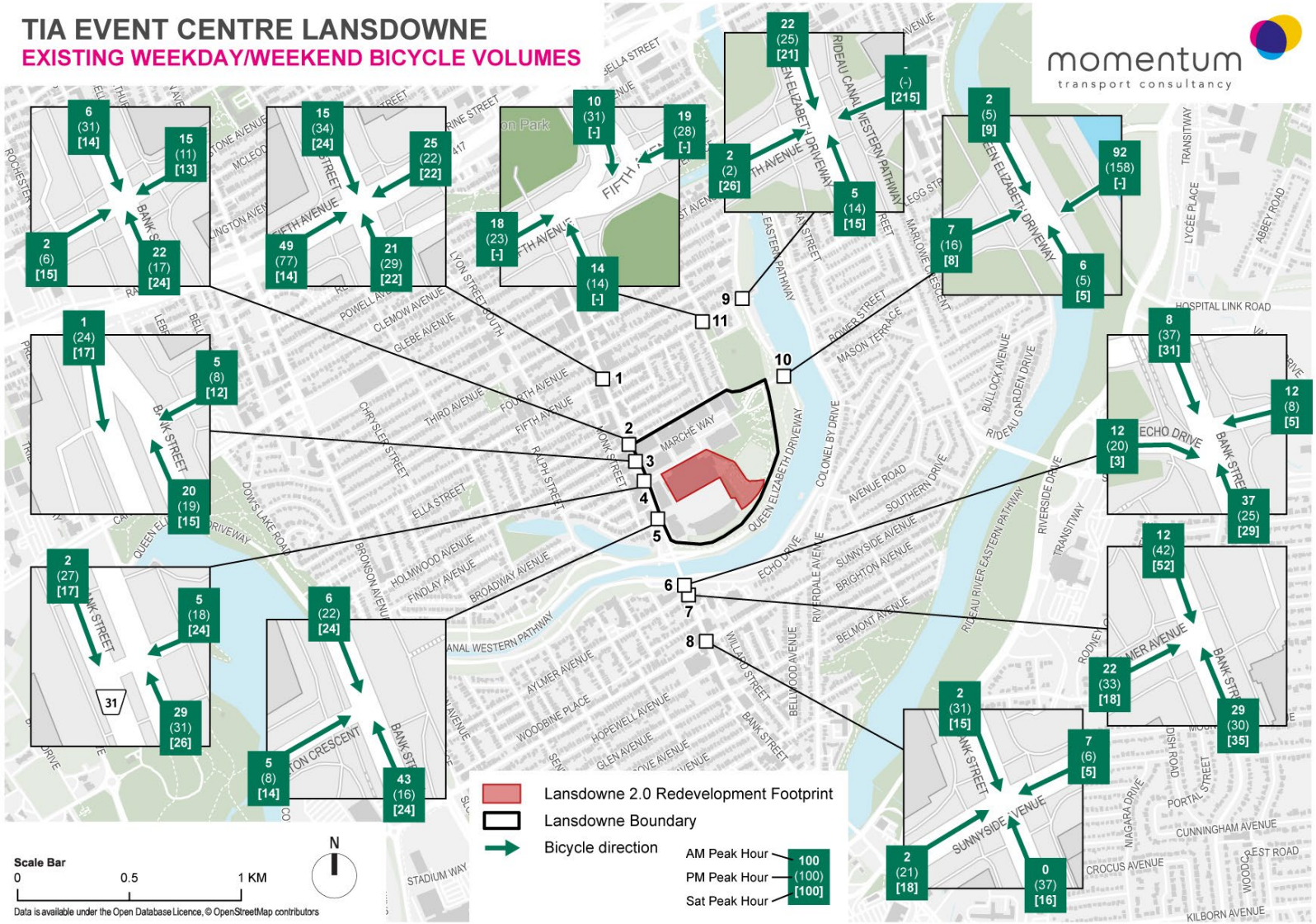


Figure 2.17: Existing Saturday PM Traffic Volumes

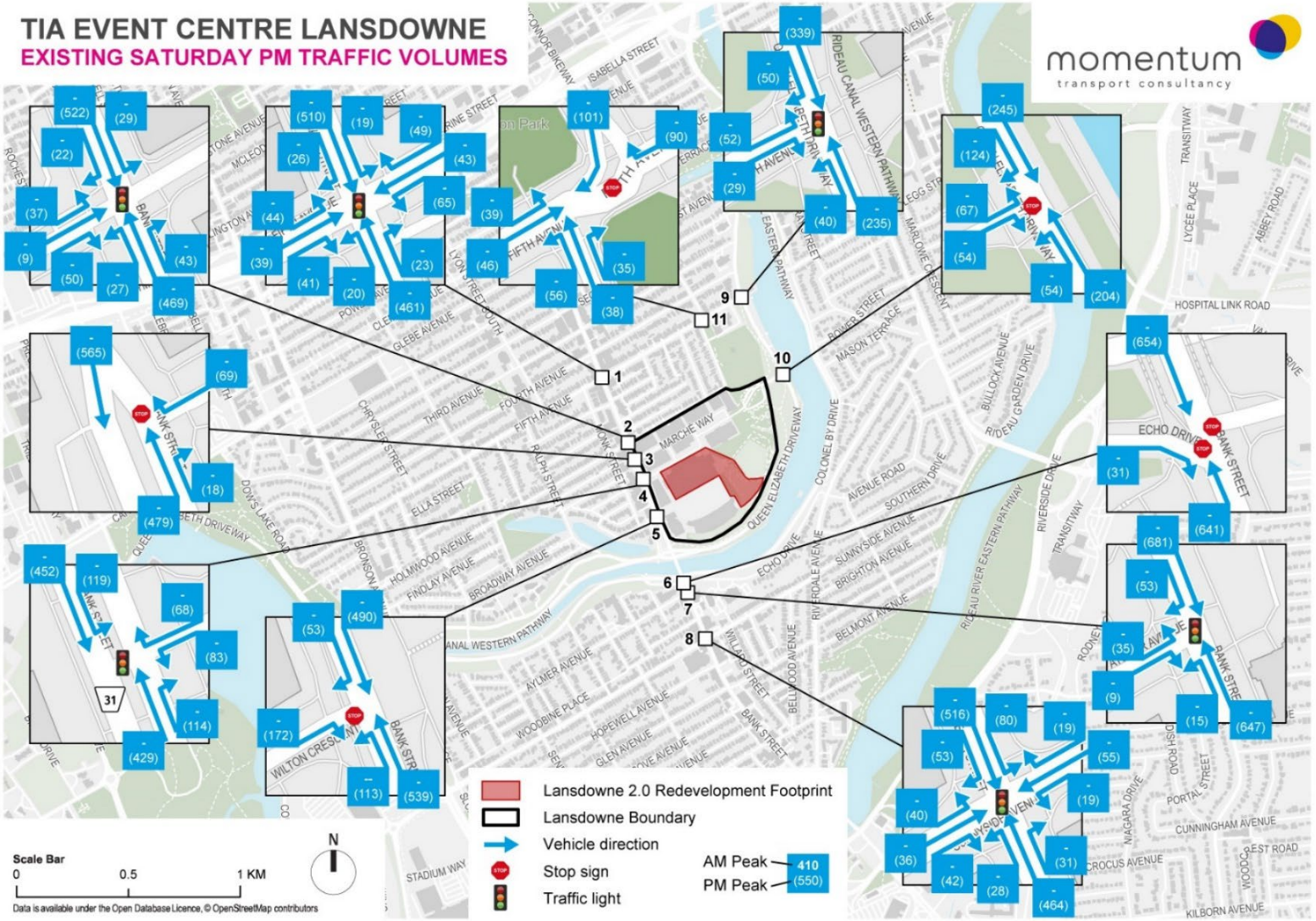


Figure 2.18: Existing Saturday PM On-site Traffic Volumes

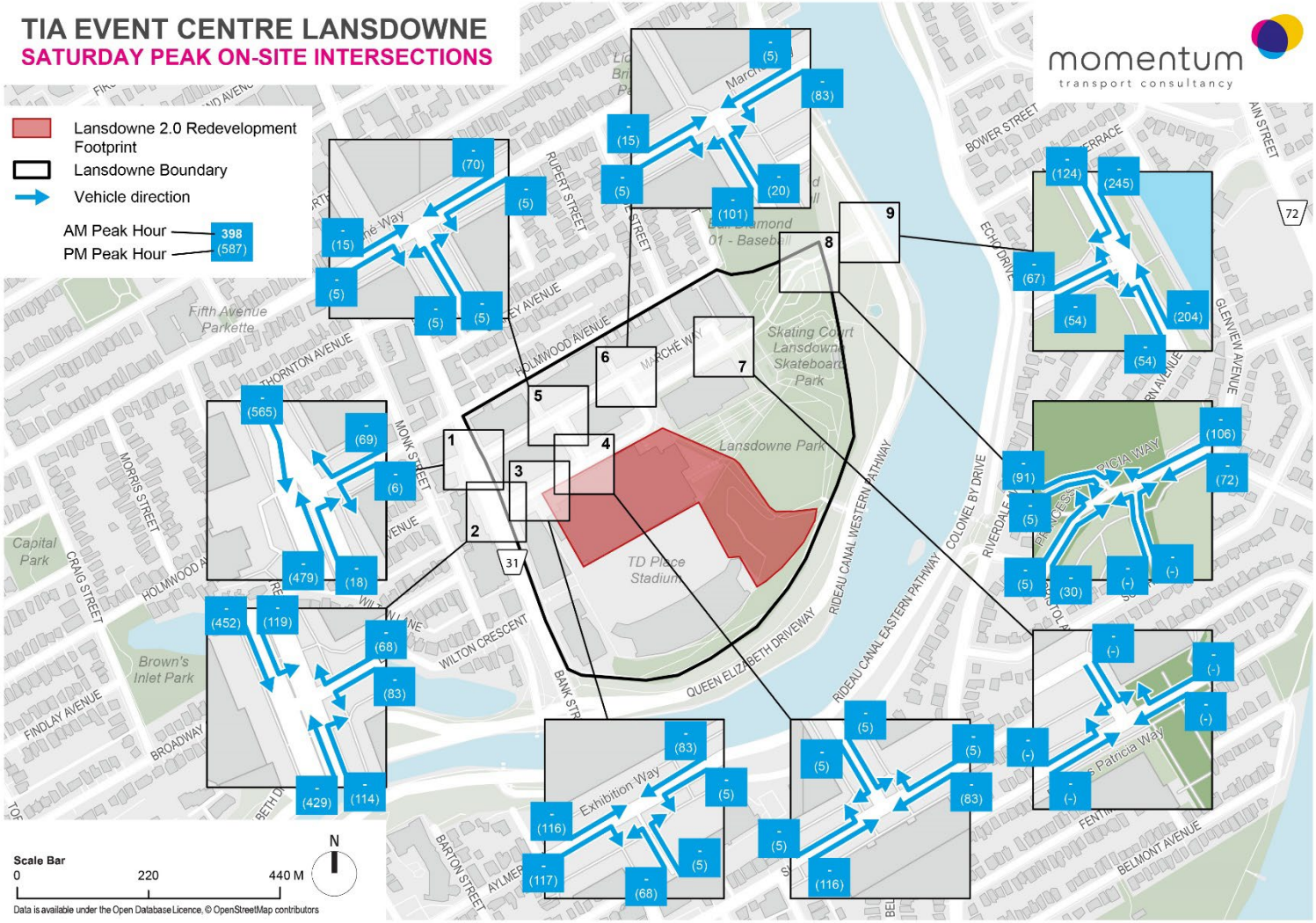


Figure 2.19: Existing Sunday PM Traffic Volumes

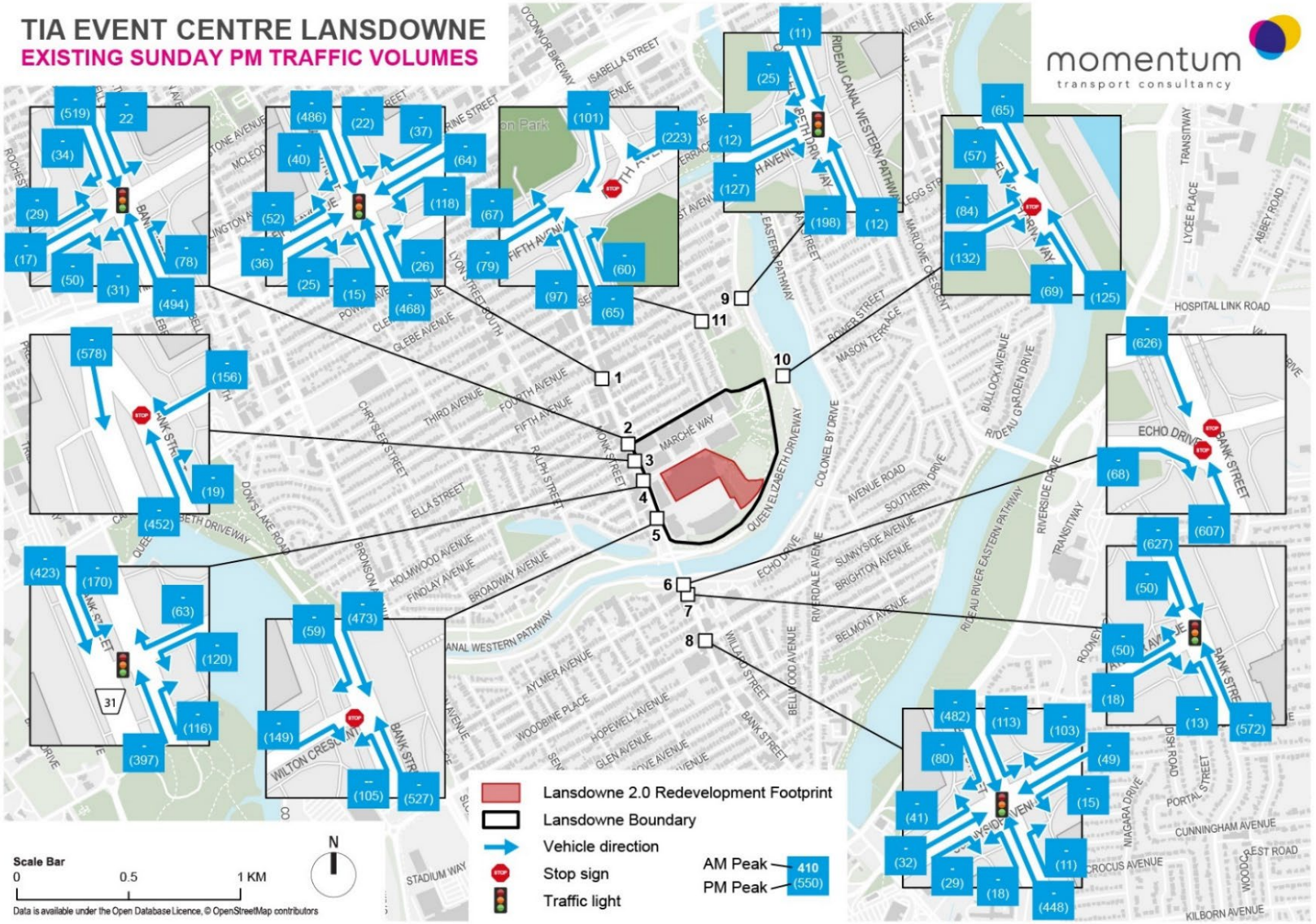


Figure 2.20: Existing Sunday PM On-site Traffic Volumes

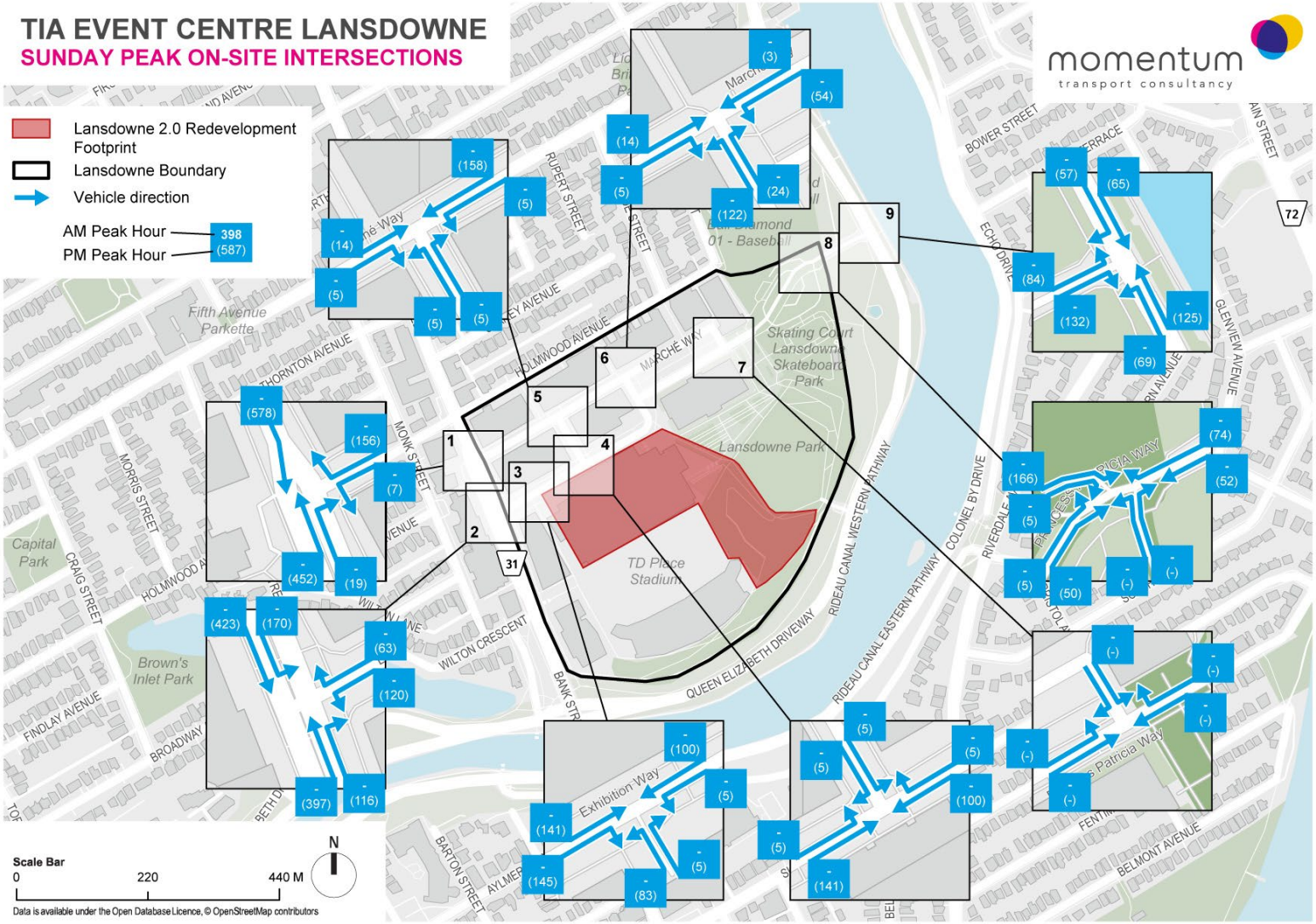


Figure 2.21: Existing Minor Event Traffic Volumes

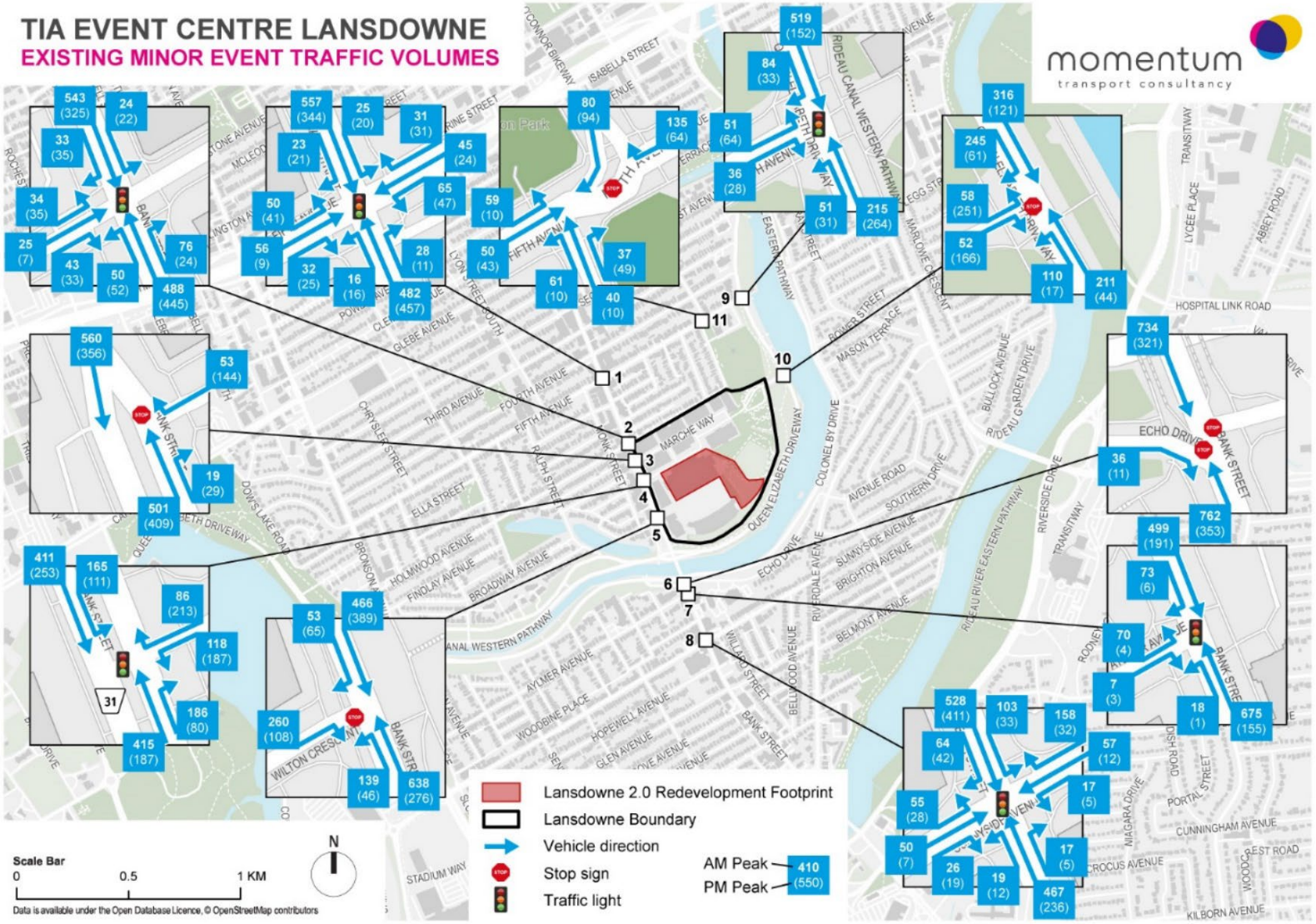


Figure 2.22: Existing Minor event Ingress/Egress On-site Traffic Volumes

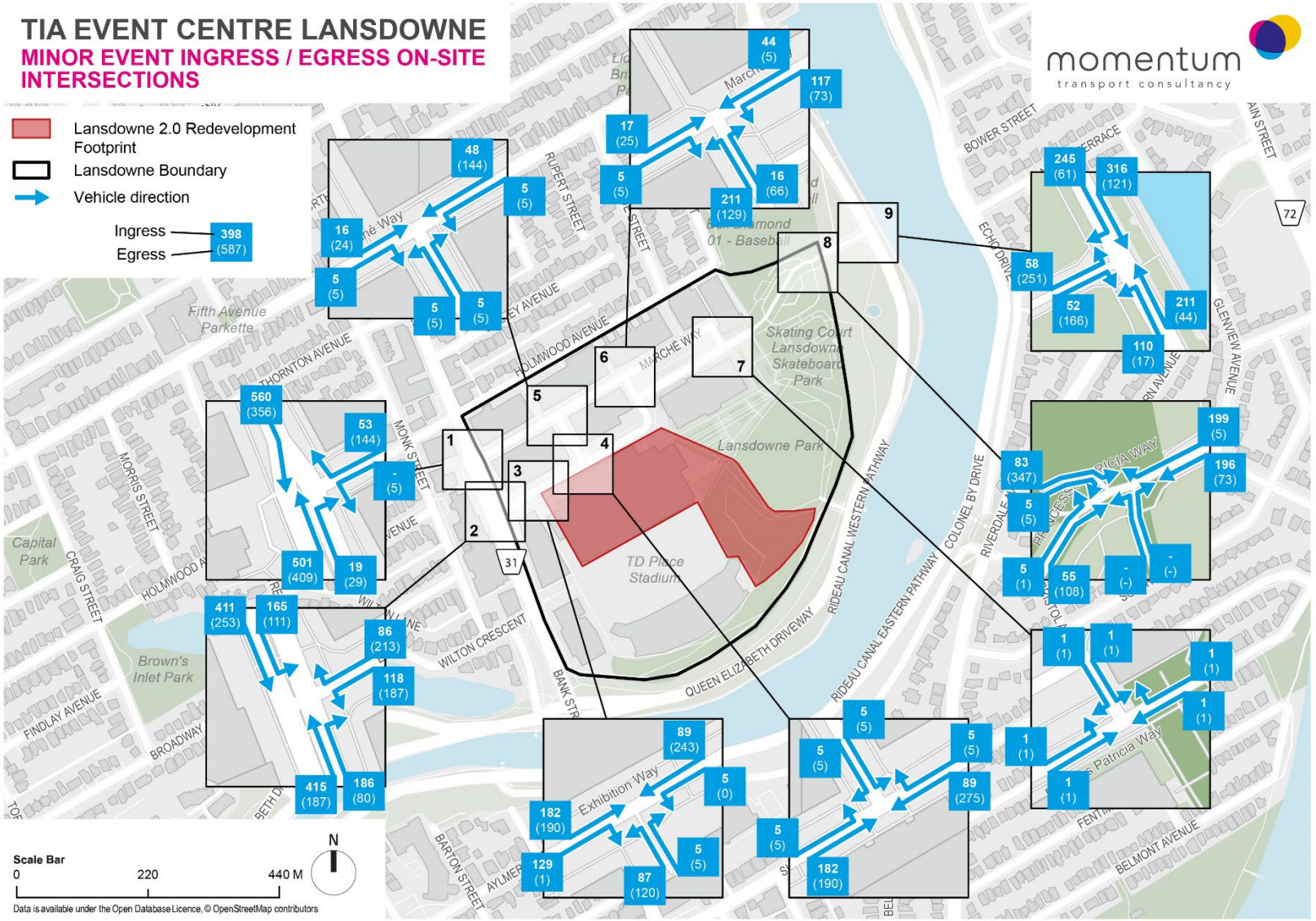


Figure 2.23: Existing Minor Event Pedestrian Volumes

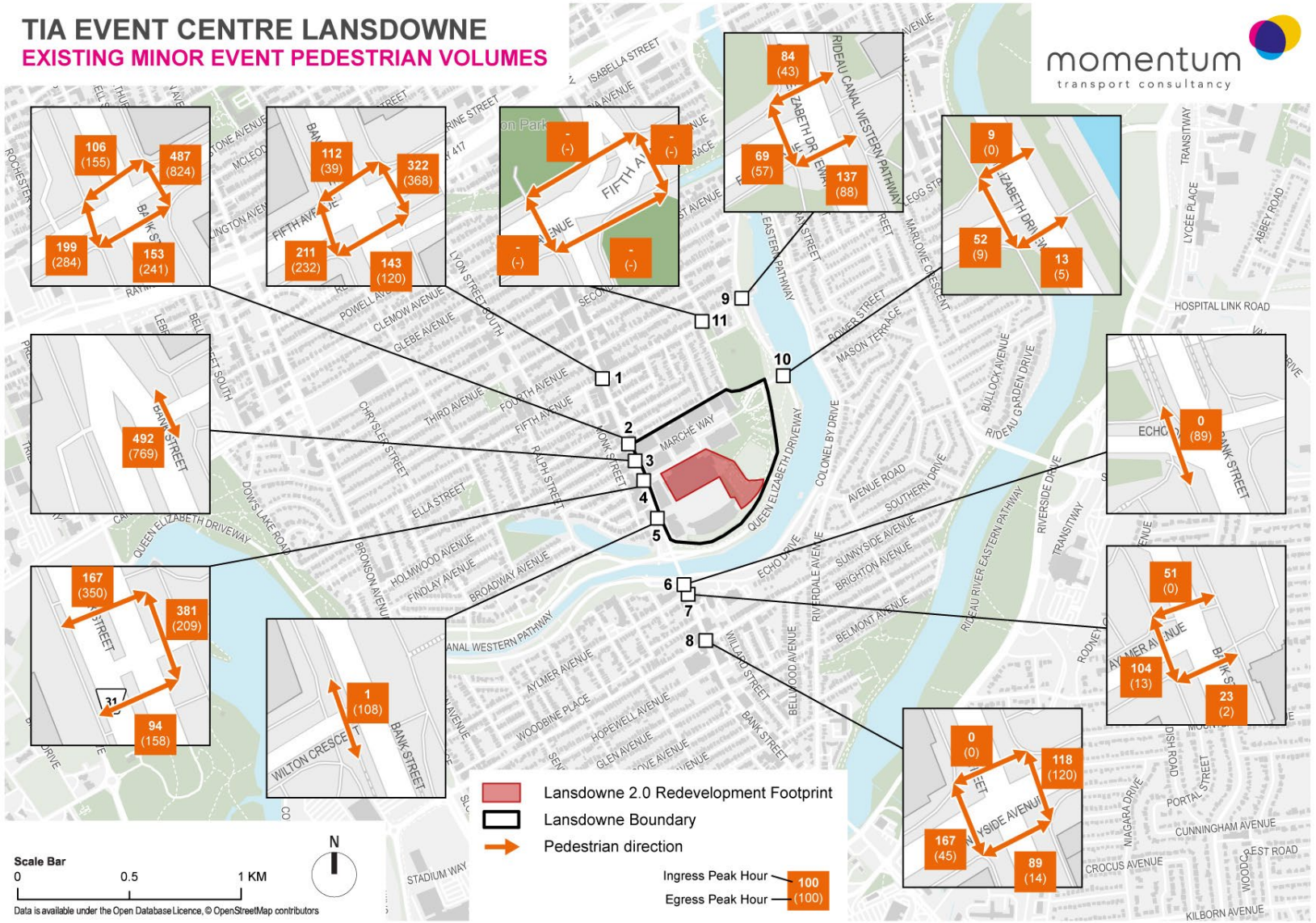


Figure 2.24: Existing Minor Event Bicycle Volumes

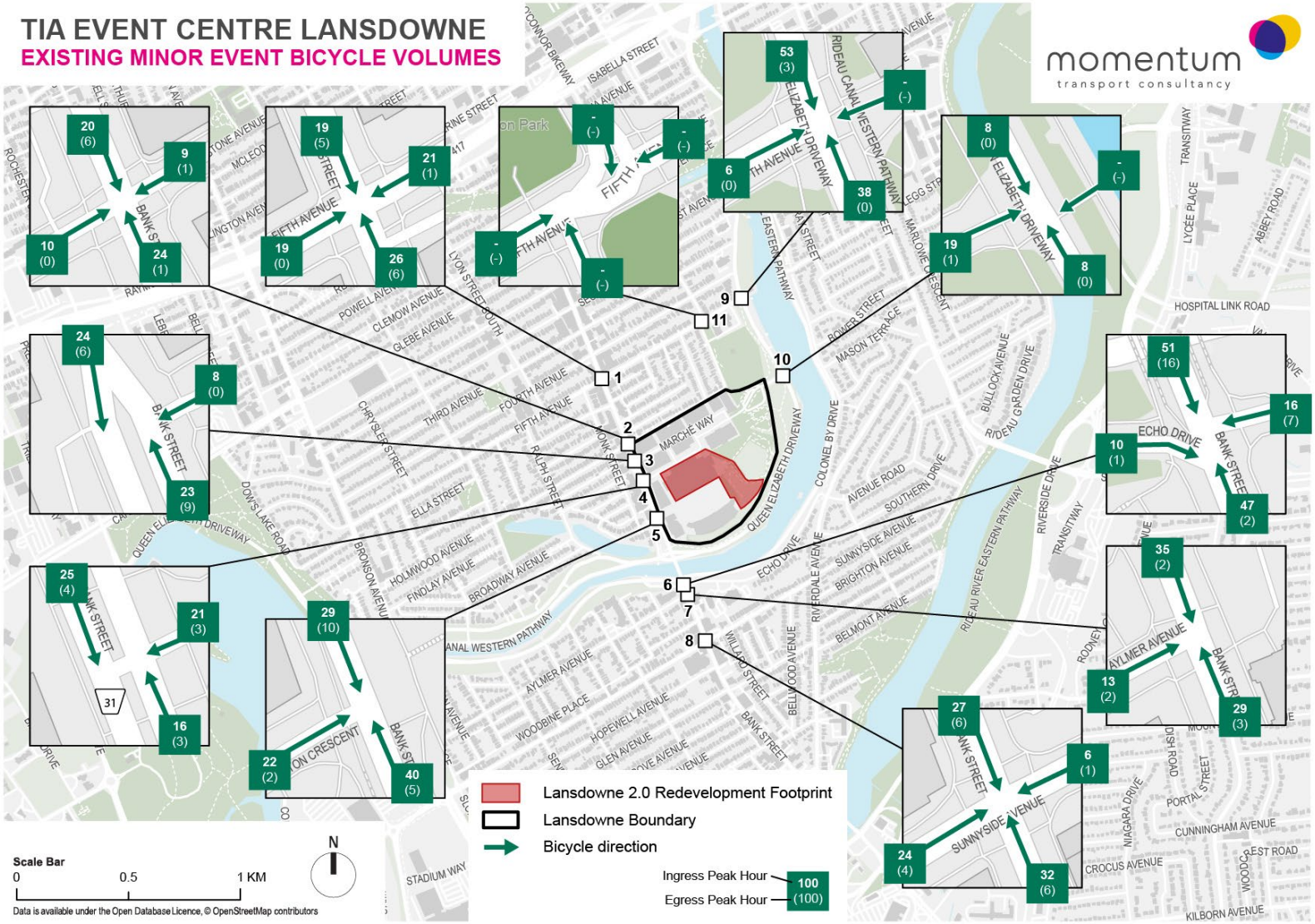


Figure 2.25: Existing Major Event Traffic Volumes

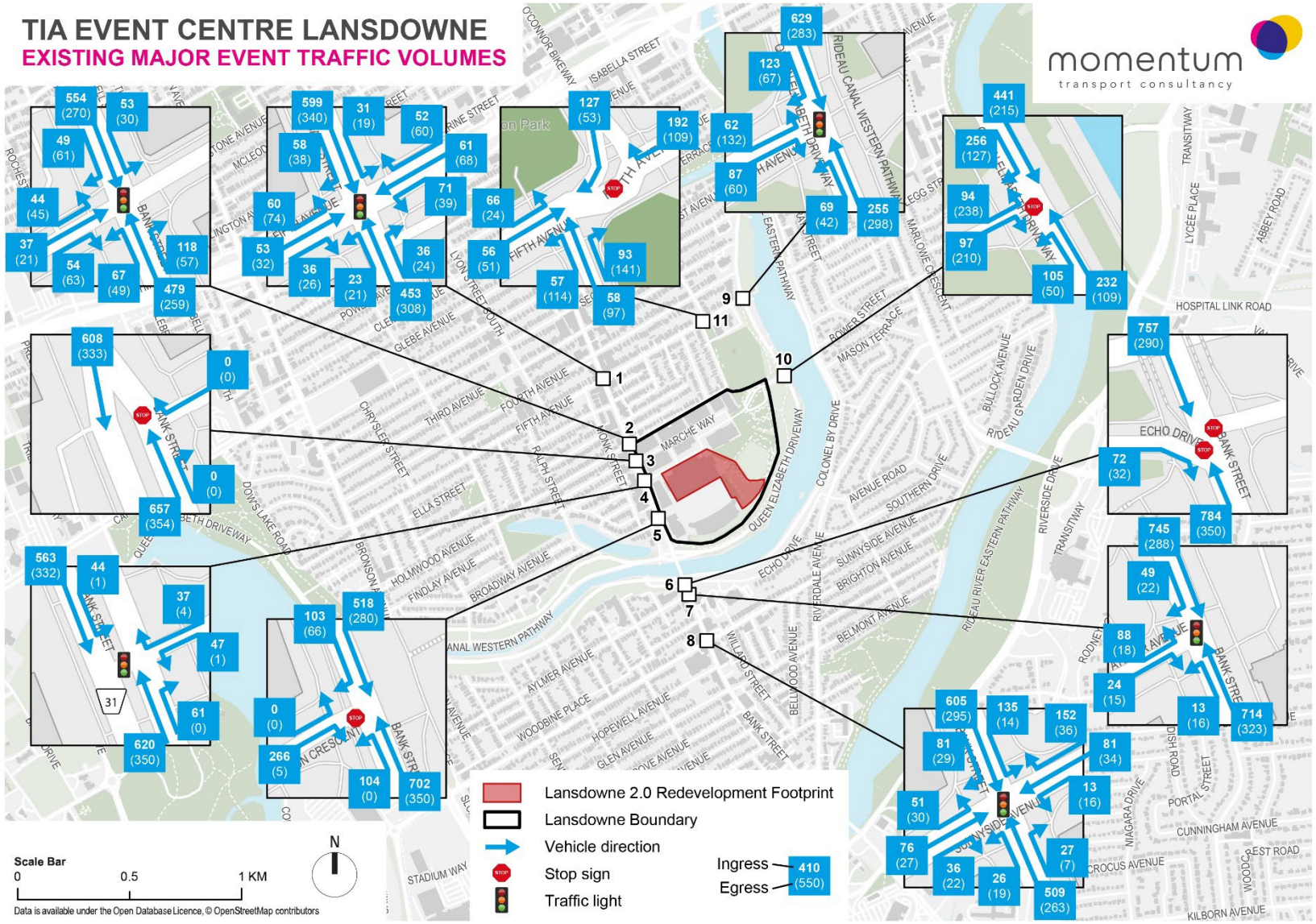


Figure 2.26: Existing Major Event Pedestrian Volumes

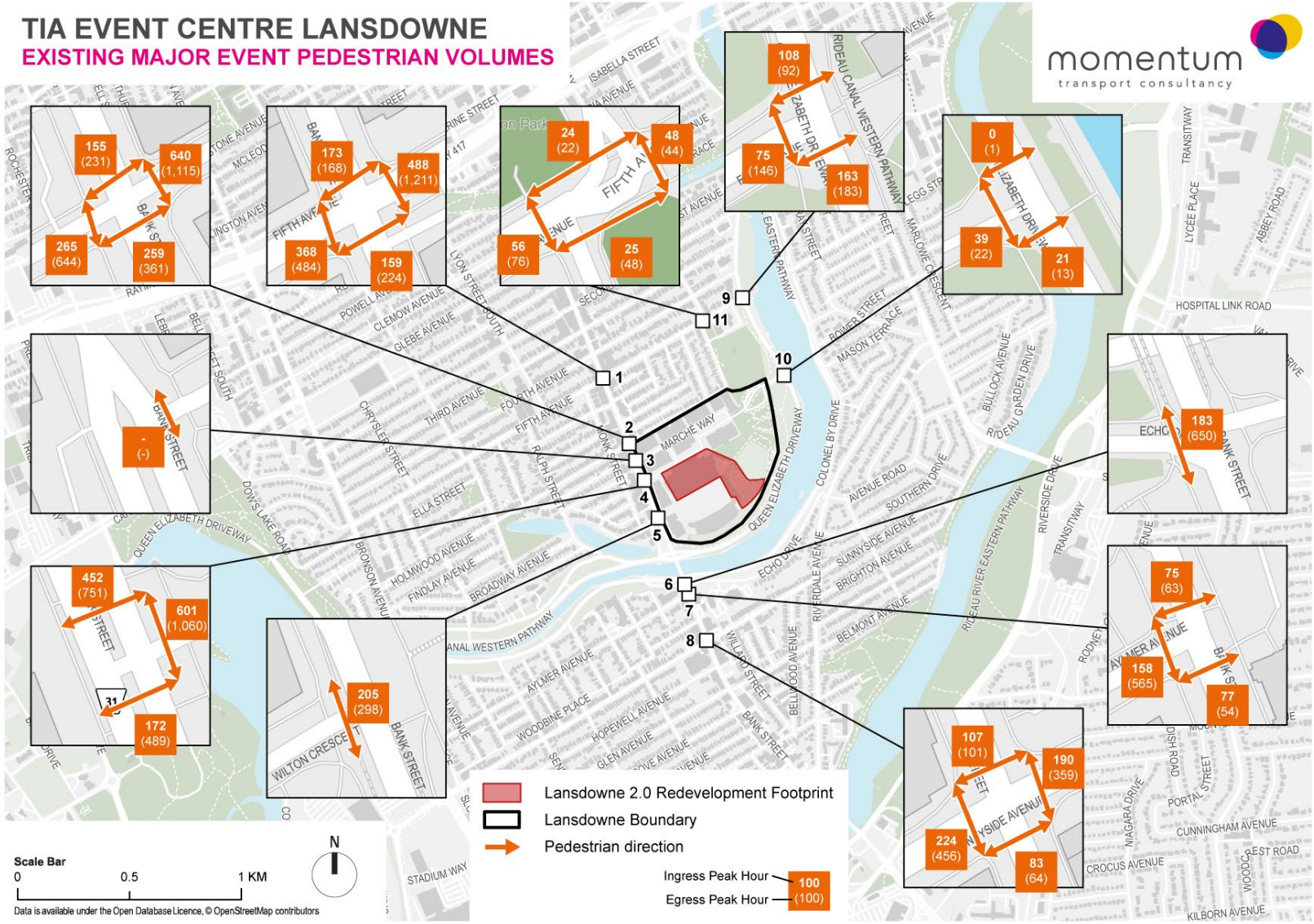
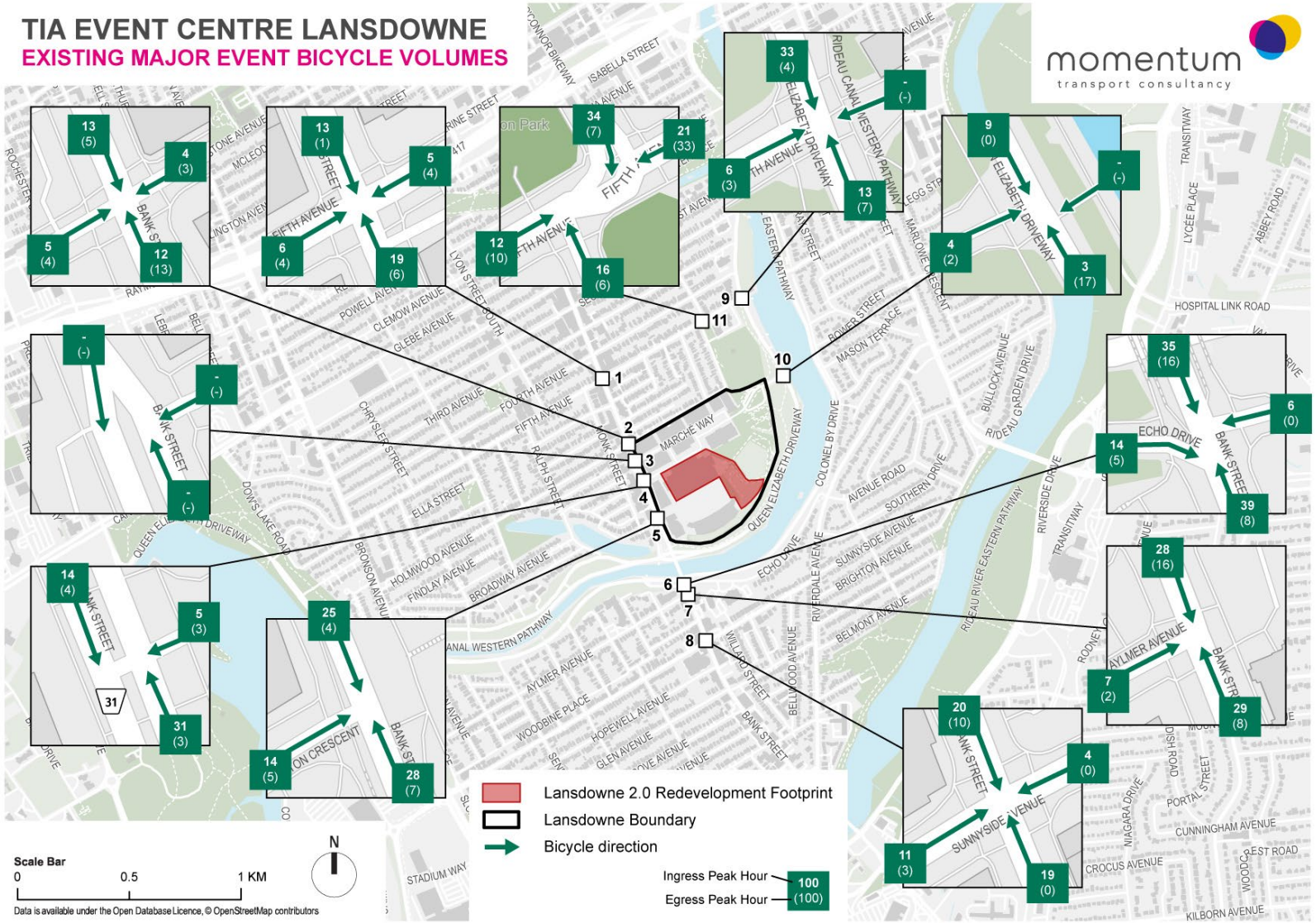


Figure 2.27: Existing Major Event Bicycle Volumes



Collision History

Collision data was provided by the City of Ottawa for the period between January 2017 to December 2021 in the vicinity of Lansdowne and TD Place. The data was reviewed to determine if any intersections exhibited identifiable collision patterns.

Table 2.1 summarizes the collision class and impact types for study area intersections.

Table 2.1: Collision Summary

LOCATION	CLASS	IMPACT TYPE				
		Sideswipe	Angle / Turning	Rear End	Single Vehicle	Other
Bank Street at Exhibition Way	Property Damage	1		4	1	
	Non-Fatal Injury					
Bank St at Marche Way	Property Damage			1		
	Non-Fatal Injury				1	
Bank St at Fifth Ave	Property Damage	3	2	3	1	
	Non-Fatal Injury		3	1	2	
Bank St at Holmwood Ave	Property Damage	3	6	2		
	Non-Fatal Injury		1			
Bank St at Wilton Cres	Property Damage	2	3	3	1	
	Non-Fatal Injury	1	3	1		
Bank St at Echo Dr	Property Damage	1	2			1
	Non-Fatal Injury					
Bank St at Aylmer Ave	Property Damage	4	2	4		
	Non-Fatal Injury			1	1	
Bank St at Sunnyside Ave	Property Damage	7	5	1		
	Non-Fatal Injury		3	1	3	
Queen Elizabeth Dr at Fifth Ave	Property Damage			3		
	Non-Fatal Injury					
Queen Elizabeth Dr at Princess Patricia Way	Property Damage	1	2	1		
	Non-Fatal Injury		2			1
Fifth Avenue at O'Connor Street	Property Damage					2
	Non-Fatal Injury					
TOTAL	**Property Damage**	**22**	**22**	**22**	**3**	**3**
	Non-Fatal Injury	**1**	**12**	**4**	**7**	**1**

Based on the collision data summarized above, the majority of collisions are classified as Property Damage only (74%), suggesting that the majority of collisions occurred at low speeds. Collision summary data can be found in **Appendix B**.

Based on a review of the collision data, the following collision hotspots in the table aforementioned have been investigated further:

Turning / Angle Collisions on Bank St at Holmwood Ave: 6 out of 7 collisions at this location were due to driver negligence – either the driver failing yield right of way or making an improper turn. It should be noted that an intersection infrastructure upgrade is warranted to include North-South fully protected left turns.

Sideswipe Collisions at Bank Street and Sunnyside Avenue: 9 out of 11 collisions at this location were due to driver negligence / dangerous driving such as following too close, improper lane change, or making an improper turn.

Angle / Turning Collisions at Bank Street and Sunnyside Avenue: 6 out of 8 collisions at this intersection are due to driver negligence / dangerous driving such as making improper turn, failure to yield right of way, or disobeying the traffic control.

The frequency and type of collisions exhibited at the intersection of Bank Street and Sunnyside Avenue warrants a review of signal timing arrangements at the intersections, particularly for northbound and southbound left-turning movements which operate under permissive phasing within a shared inner thru-left lane.

Table 2.2 shows collisions involving pedestrians and cyclists on boundary segments and intersections.

Based on the analysis of pedestrians and cyclist collision data, all historical collisions recorded between 2016 and 2018 involved an automobile and bicyclists. All collisions results in Non-Fatal Injuries. It is worth noting that the collisions were recorded prior to the implementation of bicycle infrastructure improvements along the Bank Street Bridge.

Table 2.2: Collisions Involving Pedestrians and Cyclists On Boundary Intersections

Accident Year	Accident Date	Accident Time	Location	Traffic Control	Vehicle 1 Type	Vehicle 2 Type	Environment Condition 1	Light	Classification Of Accident	Initial Impact Type	X-Coordinate	Y-Coordinate	Vehicle 1 Initial Direction	Vehicle 1 Manoeuver	Apparent Driver 1 Action	Vehicle 2 Initial Direction	Vehicle 2 Manoeuver	Apparent Driver 2 Action	No Of Pedestrians
2016	9/3/2016	21:58	BANK ST @ EXHIBITION WAY (0009013)	01 - Traffic signal	01 - Automobile, station wagon	36 - Bicycle	01 - Clear	07 - Dark	02 - Non-fatal injury	05 - Turning movement	368529.1428	5029086.037	02 - South	04 - Turning left	06 - Improper turn	01 - North	01 - Going ahead	01 - Driving properly	0
2018	8/22/2018	9:23	BANK ST @ HOLMWOOD AVE (0007225)	01 - Traffic signal	01 - Automobile, station wagon	36 - Bicycle	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	368481.7082	5029197.558	01 - North	04 - Turning left	06 - Improper turn	02 - South	01 - Going ahead	01 - Driving properly	0
2015	9/25/2015	12:22	BANK ST @ WILTON CRES (0007712)	02 - Stop sign	01 - Automobile, station wagon	36 - Bicycle	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	368577.7102	5028966.186	01 - North	04 - Turning left	08 - Failed to yield right-of-way	02 - South	01 - Going ahead	01 - Driving properly	0
2016	6/15/2016	14:08	BANK ST @ WILTON CRES (0007712)	02 - Stop sign	01 - Automobile, station wagon	36 - Bicycle	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	368578.3866	5028966.772	01 - North	04 - Turning left	08 - Failed to yield right-of-way	02 - South	01 - Going ahead	01 - Driving properly	0
2016	10/11/2016	10:30	BANK ST @ WILTON CRES (0007712)	02 - Stop sign	01 - Automobile, station wagon	36 - Bicycle	01 - Clear	01 - Daylight	02 - Non-fatal injury	02 - Angle	368577.9297	5028966.766	03 - East	05 - Turning right	08 - Failed to yield right-of-way	01 - North	01 - Going ahead	99 - Other	0
2017	7/28/2017	17:07	BANK ST @ WILTON CRES (0007712)	02 - Stop sign	01 - Automobile, station wagon	36 - Bicycle	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	368577.0692	5028965.905	01 - North	04 - Turning left	08 - Failed to yield right-of-way	02 - South	01 - Going ahead	01 - Driving properly	0
2017	9/24/2017	13:23	BANK ST @ WILTON CRES (0007712)	02 - Stop sign	01 - Automobile, station wagon	36 - Bicycle	01 - Clear	01 - Daylight	02 - Non-fatal injury	04 - Sideswipe	368577.8342	5028966.533	01 - North	10 - Stopped	99 - Other	01 - North	01 - Going ahead	01 - Driving properly	0
2018	6/19/2018	13:49	BANK ST @ WILTON CRES (0007712)	02 - Stop sign	01 - Automobile, station wagon	36 - Bicycle	01 - Clear	01 - Daylight	02 - Non-fatal injury	05 - Turning movement	368577.7564	5028966.568	01 - North	04 - Turning left	06 - Improper turn	02 - South	01 - Going ahead	01 - Driving properly	0
2016	11/13/2016	11:35	BANK ST @ EXHIBITION WAY (0009013)	01 - Traffic signal	01 - Automobile, station wagon		01 - Clear	01 - Daylight	02 - Non-fatal injury	07 - SMV other	368530.1905	5029087.499	04 - West	04 - Turning left	08 - Failed to yield right-of-way				2
2018	11/25/2018	6:25	BANK ST @ MARCHE WAY (0014936)	02 - Stop sign	01 - Automobile, station wagon		04 - Freezing Rain	03 - Dawn	02 - Non-fatal injury	07 - SMV other	368506.2197	5029140.087	04 - West	05 - Turning right	08 - Failed to yield right-of-way				1

2.1.3 PLANNED CONDITIONS

Road Network Modifications

Table 2.3 identifies the City of Ottawa's Transportation Master Plan (TMP) projects located in the vicinity of the subject site, as well as projects that are anticipated to influence modal share characteristics in the future.

Table 2.3: City of Ottawa Transportation Master Plan Projects

Project	Description
Bank Street	Transit signal priority between Wellington Street and Highway 417. May also include parking lane conversion in the immediate vicinity of selected intersections Transit signal priority between Highway 417 and Billings Bridge Station, including limited installation of queue jump lanes (in one direction only) at selected intersections The 2023 Transportation Master Plan Cycling Project List includes a feasibility study of cycling facilities on Bank Street between the Rideau Canal and Riverside Drive (westbound) The 2023 TMP Pedestrian Project List identifies a feasibility study of pedestrian facilities along Echo Drive from Colonel By Drive to Bank Street, along with a pedestrian crossing at Colonel By Drive

The City of Ottawa is currently undertaking the *Bank Street Active Transportation and Transit Priority Feasibility Study* between Highway 417 to the Rideau Canal. The project, which is currently underway, seeks to identify options to improve transit service efficiency and reliability along the corridor, with improvements to the travel environment for walking and cycling. Recommendations to City of Ottawa Transportation Committee are expected to be provided in Spring 2025.

Future Background Developments

Several new developments are proposed in the vicinity of Lansdowne. The location of background developments are described in Table 2.4 and illustrated in Figure 2.28.

Table 2.4: Background Developments

Plan Reference	Development	Location	Description
A	1050 – 1060 Bank Street	West side of Bank Street between Aylmer and Euclid Avenue in the south portion of Ottawa	6 storey residential apartment (44) units and 825m^2 retail space (Buildout – 2024)
B	178 – 200 Isabella Street	South of Highway 417 between Bank Street and O'Connor Street	16 storey mixed-use building with 251 dwellings units and approximately 355 m^2 of ground floor commercial space (Buildout – 2025)
C	30-48 Chamberlain Avenue	South of Chamberlain Avenue, west of Bank Street	150 apartment units and approximately 400 m^2 of ground floor retail space (Buildout – 2024)
D	770 – 774 Bronson Avenue	Southwest corner of Bronson Avenue and Carling Avenue intersection	257 apartment dwelling unit and 71 student housing dwelling units (Buildout-2025)
E	1040 Bank Street	Northwest corner of Bank Street and Aylmer Avenue intersection	Redevelopment of the Southminister United Church including a six-storey condominium building adjacent to the church

Figure 2.28: Background Developments Key Plan

2.2 Study Area and Time Periods

2.2.1 STUDY AREA

The following study area intersections are proposed for analysis:

1. Bank Street at Fifth Avenue
2. Bank Street at Holmwood Avenue
3. Bank Street at Exhibition Way
4. Bank Street at Wilton Crescent
5. Bank Street at Echo Drive
6. Bank Street at Aylmer Avenue
7. Bank Street at Sunnyside Avenue
8. Queen Elizabeth Driveway at Princess Patricia Way
9. Queen Elizabeth Driveway at Fifth Avenue
10. Bank Street at Marché Way
11. Fifth Avenue at O'Connor Street

2.2.2 TIME PERIODS

The proposed scope of the transportation assessment includes the following analysis time periods:

- Weekday AM Peak Hour of roadway
- Weekday PM Peak Hour of roadway
- Saturday Mid-Day Peak Hour of roadway
- Sunday Mid-Day Peak Hour of roadway
- Weekday Minor and Major Events: Ingress and Egress Peak Hour

In the analysis that follows, it should be noted that intersection count timings may not always be representative of peak conditions given Ottawa's seasonal variations. For example, volumes for all modes may be higher in the summer (July-August) and during a major event on a Saturday. Active modes like walking and cycling are likely to be less commonly used during winter months.

2.2.3 HORIZON YEARS

The proposed scope of the transportation assessment includes the following horizon years:

- **Existing Conditions –** Representative of current operating conditions at Lansdowne.
- **2028 –** Representative of anticipated completion and interim operating conditions of the new event centre during the construction of subsequent phases of Lansdowne 2.0 (i.e. – new north stadium stands and podium retail / residential towers).
- **2033 –** Representative of anticipated full build-out of Lansdowne 2.0, inclusive of the new event centre, north stadium stands, podium retail, and residential towers.

2.3 Exemptions Review

Table 2.5 summarizes the Exemptions Review table from the City of Ottawa's *2017 Transportation Impact Assessment Guidelines*.

Table 2.5: Exemptions Review

Module	Element	Exemption Considerations	Exempted?
Design Review Component			
4.1 Development Design	4.1.1 Design for Sustainable Modes	All	No
	4.1.2 Circulation and Access	All site plan and zoning by-law applications	No
	4.1.3 New Street Networks	All plans of subdivision	Yes
4.2 Parking	4.2.1 Parking Supply Include language that asks for justification of change to Zoning By-law parking requirements	All site plan and zoning by-law applications	No
4.3 Boundary Street Design		All	No
Network Impact Component			
4.5 Transportation Demand Management	All Elements	Not required for site plans expected to have fewer than 60 employees and/or students on location at any given time	No
	4.5.1 Context for TDM	All	No
	4.5.2 Need and Opportunity	All	No
	4.5.3 TDM Program	All	No
4.6 Neighbourhood Traffic Calming	4.6.1 Adjacent Neighbourhoods	If the development meets all of the following criteria along the route(s) site generated traffic is expected to utilize between an arterial road and the site's access: 1. Access to Collector or Local;	No

Module	Element	Exemption Considerations	Exempted?
		2. “Significant sensitive land use presence” exists, where there is at least two of the following adjacent to the subject street segment: • School (within 250m walking distance); • Park; • Retirement / Older Adult Facility (i.e. long-term care and retirement homes); • Licenced Child Care Centre; • Community Centre; or • 50%, or greater, of adjacent property along the route(s) is occupied by residential lands and a minimum of 10 occupied residential units are present on the route. 3. Application is for Zoning By-Law Amendment or Draft Plan of Subdivision; 4. At least 75 site-generated auto trips; 5. Site Trip Infiltration is expected. Site traffic will increase peak hour vehicle volumes along the route by 50% or more	
4.7 Transit	4.7.1 Transit Route Capacity	> 75 site transit trips	No
	4.7.2 Transit Priority Requirements	> 75 site auto trips	No
4.8 Network Concept		Only required when proposed development generates more than 200 person-trips during the peak hour in excess of the equivalent volume permitted by established zoning	Yes
4.9 Intersection Design	4.9.1 Intersection Controls (including site accesses)	> 75 site auto trips	No
	4.9.2 Intersection Design	> 75 site auto trips	No

3. FORECASTING

3.1 Development Generated Travel Demand

3.1.1 TRIP GENERATION AND MODE SHARES

Existing Trip Generation

Lansdowne is currently an active site featuring a variety of land uses including the Stadium at TD Place, the Arena at TD Place, 280 residential townhome and condo units, an 18-acre urban park, and approximately 360,000 ft^2 of commercial retail and office space.

The current vehicular trip generation characteristics of the site are captured through Turning Movement Count (TMC) data. Existing peak hour traffic volumes under the weekday AM and PM peak periods, weekend Saturday and Sunday peak periods, as well as ingress and egress traffic demands for minor and major events held at Lansdowne are summarized in Section 2.1.5.

Future Trip Generation and Mode Shares

Phase 1 of Lansdowne 2.0, which represents the construction of the new 5,500 seat multi-purpose event centre, is not expected to generate any additional transportation demands or new travel patterns as the activities and programming associated with this new facility are currently in place at the Arena at TD Place.

Phase 2 of Lansdowne 2.0, which includes the demolition of the old north stadium stands and the construction of a new one is not expected to generate any new transportation demands or changes in travel patterns.

Phase 3 of Lansdowne 2.0, which includes the construction of new podium level retail and additional high-rise residential units within two new towers are expected to generate additional transportation demands at Lansdowne.

As a result, development generated travel demands are forecasted for the ultimate build-out of Lansdowne 2.0 which is assumed to be achieved by 2033.

The Institute of Transportation (ITE) Trip Generation Manual (11th Edition) was used to forecast the trip generation potential of additional land uses for Lansdowne 2.0. The TRANS trip generation rates are not given for weekend periods (only for weekday AM and PM peak hour rates) and the scope of the analysis includes a Saturday and Sunday peak periods; thus the TRANS trip generation rates were not used for this study. The approach used is consistent with the overall Lansdowne 2.0 study completed in 2023.

LUC 222 (Multifamily Housing) was used to estimate the trip generation potential for the two new residential towers (770 units). Person Trips were estimated for the Weekday AM, Weekday PM, Saturday Peak, and Sunday Peak hours using the Dense Multi-Use Urban setting and for the Peak Hour of Generator.

LUC 820 (Shopping Center) was used to estimate the trip generation potential for the new podium level commercial retail (net increase of +8,600 sq-ft). Auto Trips were estimated for the Weekday AM, Weekday PM, Saturday Peak, and Sunday Peak hours using the General Urban/Suburban setting and for the Peak Hour of Generator. Auto Trips were subsequently converted to Person Trips using an auto occupancy factor of 1.28 as per the TRANS Trip Generation Manual.

LUC 710 (General Office) was used to estimate the trip generation potential for the net increase in office space (net increase of +14,200 sq-ft). Person Trips were estimated using the Dense Multi-Use Urban and the Peak Hour of Adjacent Road for the Weekday AM and Weekday PM peak hours, and the Peak Hour of Generator for the Saturday Peak and Sunday Peak hours.

Table 3.1 outlines the assumed land uses and the trip generation rates (ITE) for each land use.

Table 3.1: Lansdowne 2.0 Land Uses and Trip Generation Rates

Phase 1 – New Event Centre (2028)																
N/A	Indoor Arena / Multi-Purpose Event Centre	Person Trips	5,500 Seats	Existing Land Use at Lansdowne. No Additional New Trips Forecasted												
Phase 2 – New North Stadium Stands (2031)																
N/A	Football Stadium	Person Trips	25,000 Seats	Existing Land Use at Lansdowne. No Additional New Trips Forecasted												
Phase 3 – Full Buildout / Podium Retail + New Residential Units (2033)																
LUC	**Land Use**	**Trip Type**	**Units / GFA (ksf)**	Weekday AM **Peak Hour**			Weekday PM **Peak Hour**			**Saturday Weekend Peak Hour**			**Sunday Weekend Peak Hour**			
				In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
222	Multi-unit Residential (High-Rise)	Person Trips	770 units	16%	84%	**0.76 / unit**	64%	36%	**0.58 / unit**	56%	44%	**0.74 / unit**	51%	49%	**0.85 / Unit**	
820	Shopping Center	Vehicle Trips	8.6 ksf	55%	45%	**2.87 / ksf**	50%	50%	**4.09 / ksf**	52%	48%	**4.40 / ksf**	49%	51%	**2.35 / ksf**	
710	General Office	Person Trips	14.2 ksf	87%	13%	**1.22 / ksf**	21%	79%	**1.28 / ksf**	48%	52%	**0.27 / ksf**	36%	64%	**0.17 / ksf**	

Trip Internalization

Trip Internalization refers to trips that are shared between two or more uses within the same site. This behaviour is typical for mixed-use developments that feature a variety of land uses that complement each other. When trip internalization occurs, a portion of the generated trips for each individual land use are drawn from other land uses within the same district, as opposed to new trips that are generated externally.

For new land uses proposed for Lansdowne 2.0, trip Internalization factors were applied to account for new site trips that are expected to be generated from within the site, or external trips that visit more than one land use within the subject development. Since these trips are contained within the district, accounting for each trip separately on the roadway network would result in double-counting trips. As a result, land uses with internal capture trips between one another ultimately had their net new trips adjusted consistent with acceptable industry standards.

For Lansdowne 2.0, a portion of the additional commercial retail land-uses are assumed to feature trip internalization with other land-uses and activities within the site include existing and future residential, office, and the existing retail land-uses.

Table 3.2 outlines the trip internalization rates assumed for the additional retail land uses assumed as part of the Lansdowne 2.0 development.

Trip internalization rates were developed based on the methodologies outlined in TRANS Trip Generation Manual and NCHRP Report 684 (Enhancing Internal Trip Capture Estimation for Mixed-Use Developments).

NCHRP 684 Internal Trip Capture Estimation worksheets are included in **Appendix C**.

Table 3.2: Internal Capture Trips

LUC	Land Use	Trip Conversion	Weekday AM Peak			Weekday PM Peak			Weekend Peak Hour		
			In	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
820	Shopping Plaza	Internal Capture	15%			30%			15%		

Lansdowne 2.0 Additional Person Trips

New transportation demands associated with Lansdowne 2.0 additional development is outlined in Table 3.3.

Forecasted person trips for the proposed multi-unit residential towers, additional commercial retail, and general office spaces were derived using the ITE Trip Generation Manual and the TRANS trip generation manual vehicle-to-person conversion factor. .

The trip internalization factors outlined above were applied to the shopping plaza land use to capture internal trips. While the new event centre represents a decrease in venue capacity, this is not anticipated to result in a significant reduction of trips during Minor and Major Events. The new event centre has been designed to better accommodate Minor Events held at Lansdowne to date, which typically have attendance levels that are less than 5,000 spectators. No changes in the provision of enhanced transit or shuttle services are expected.

Table 3.3: Lansdowne 2.0 Person Trips Generated by Land Use

LUC	Land Use	Trip Conversion	Weekday AM Peak			Weekday PM Peak			Saturday Peak Hour			Sunday Peak Hour		
			In	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
222	Multi-Unit Residential (High-Rise)	**Person Trips**	**94**	**492**	**585**	**286**	**161**	**447**	**319**	**251**	**570**	**334**	**321**	**655**
820	Shopping Plaza	Auto Trips (Peak Hour)	14	11	25	18	18	35	20	18	38	10	10	20
		Auto Trip to Person Trip Factor	1.28 persons per vehicle											
		Initial Person Trips	17	14	32	32	23	45	25	23	49	13	13	26
		Internalization Factor	15%			30%			15%			15%		
		Internalization Trip Reduction	-3	-2	-5	-7	-7	-14	-4	-4	-7	-2	-2	-4
		Person Trips	**14**	**12**	**27**	**16**	**16**	**31**	**21**	**19**	**42**	**11**	**11**	**22**
710	General Office	**Person Trips**	**15**	**2**	**17**	**4**	**14**	**18**	**2**	**2**	**4**	**1**	**2**	**2**
Lansdowne 2.0 New Person Trips (Peak Hour)			**123**	**506**	**629**	**305**	**191**	**496**	**342**	**272**	**615**	**345**	**334**	**679**

It is estimated that the Lansdowne 2.0 development is projected to result in a net increase of 629 person trips in the AM Peak Hour, 496 person trips in the PM Peak Hour, 615 trips during the Saturday Weekend Peak Hour, and 679 trips during the Sunday Weekend Peak Hour.

To reflect local travel characteristics, forecasted person trips were assigned and distributed to various travel modes (i.e., auto, passenger, transit, cycling and walking). Modal share percentages were adopted from the TRANS Trip Generation Manual.

The TRANS Trip Generation Manual provides trip generation and modal share rates for 26 geographic regions within Ottawa-Gatineau. For Lansdowne, the modal shares for the *Ottawa Inner Area (050)* were adopted for the High-Rise Multifamily Housing and Commercial land-uses.

The Lansdowne 2.0 assumed modal shares are summarized below in Table 3.4.

Table 3.4: Assumed Mode Share by Land Use

Mode	222 - Multiuse Family			820 - Commercial Retail			710 - Office
	AM	PM	Average	AM	PM	Average	
Auto	26%	25%	**26%**	39%	22%	**31%**	**45%**
Passenger	7%	9%	**8%**	2%	4%	**3%**	**7%**
Transit	28%	21%	**25%**	16%	12%	**14%**	**29%**
Cycling	5%	6%	**6%**	3%	4%	**4%**	**8%**
Walking	34%	39%	**37%**	40%	58%	**49%**	**11%**

Residential Trips – Mode Shares
Section 4.2 (Table 8) of the *TRANS Trip Generation Manual (October 2020)* was utilized to determine the residential mode share for high rise multi-family housing for the Ottawa Inner Area district. The mode shares for the district, which is based on blended AM and PM peak period rates, include a 26% auto mode share, a 25% transit mode share, and a combined 43% modal share for walking and cycling.

Commercial Trips – Mode Shares
Section 6.3 (Table 13) of the *TRANS Trip Generation Summary Manual (October 2020)* was utilized to determine the commercial retail mode share for the Ottawa Inner Area district. The mode shares for the district, which is based on blended AM and PM peak period rates, include a 31% auto mode share, a 14% transit mode share, and a combined 53% modal share for walking and cycling.

Table 3.5 outlines the adjusted future trip generation estimate for Lansdowne 2.0 by travel mode.

Table 3.5: Lansdowne 2.0 Future Trip Generation by Travel Mode

LUC	Land Use	Modal Share %		Weekday AM Peak Hour			Weekday PM Peak Hour			Weekend Saturday Peak Hour			Weekend Sunday Peak Hour		
				In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
222	Multi – Unit (High-Rise)	Auto Driver	26%	24	125	149	73	41	114	81	64	145	85	82	167
		Passenger	8%	7	39	47	23	13	36	26	20	46	27	26	52
		Transit	25%	23	120	143	70	39	109	78	61	140	82	79	160
		Cycling	6%	5	27	32	16	9	25	18	14	31	18	18	36
		Walking	37%	34	179	214	104	59	163	116	92	208	122	117	239
820	Shopping Center	Auto Driver	31%	4	4	8	5	5	10	6	6	12	3	3	7
		Passenger	3%	0	0	1	0	0	1	1	1	1	0	0	1
		Transit	14%	2	2	4	2	2	4	3	3	6	2	2	3
		Cycling	4%	1	0	1	1	1	1	1	1	1	0	0	1
		Walking	49%	7	6	13	8	8	15	10	9	20	5	6	11
710	Office	Auto Driver	45%	7	1	8	2	6	8	1	1	2	0	1	1
		Passenger	7%	1	0	1	0	1	1	0	0	0	0	0	0
		Transit	29%	4	1	5	1	4	5	1	1	1	0	0	1
		Cycling	8%	1	0	1	0	1	1	0	0	0	0	0	0
		Walking	11%	2	0	2	0	2	2	0	0	0	0	0	0
Lansdowne 2.0 Additional Person Trips		**Auto Driver**		35	130	165	79	52	132	89	71	159	89	86	175
		Passenger		9	40	49	24	14	38	26	21	47	27	26	53
		Transit		29	123	152	73	46	119	82	65	146	84	81	164
		Cycling		7	28	35	17	11	27	18	15	33	19	18	37
		Walking		43	186	229	112	68	180	127	101	228	127	123	250
		Total Person Trips (Peak Hour)		**123**	**506**	**629**	**305**	**191**	**496**	**342**	**272**	**614**	**345**	**334**	**679**

The total additional number of trips generated by the Lansdowne 2.0 development are outlined above by mode. Out of the total trips forecasted, the additional auto trips forecasted as part of the Lansdowne 2.0 development are estimated to be 165, 132, and 159, and 175 vehicle trips in the Weekday AM, Weekday PM, Saturday, and Sunday peak hours, respectively.

3.1.2 TRIP DISTRIBUTION

Cardinal trip distribution to and from Lansdowne was developed based on the 2011 TRANS Origin-Destination Survey for the Ottawa Inner Area region.

Based on the origin-destination data, trip distributions were estimated based on directions to the north, east, south and west. The data indicates that up to 32% of trips surveyed within the Ottawa Inner Area started and ended within the same district, and upwards of 10% of trips have an origin/destination to the Ottawa Centre region north of the district towards downtown Ottawa. The remaining trips were found to be distributed to other regions throughout Ottawa-Gatineau.

Table 3.6 outlines the trip distribution assumptions to/from Lansdowne based on the 2011 TRANS Origin-Destination Survey.

Table 3.6: Site Trip Directional Distribution

Direction	Trip Distribution
North	35%
East	21%
South	32%
West	13%
Total	**100%**

As Lansdowne is bound by two north-south corridors, namely Bank Street to the west, and Queen Elizabeth Driveway to the east, site trip distribution assumptions were refined in the north-south direction, representing localized trip distribution on Bank Street and Queen Elizabeth Driveway.

Table 3.7 outlines the assumed directional trip distributions based on access to nearby regional corridors including the Queensway (Highway 417) to the north, Bronson Avenue to the west, and Riverside Drive and Heron Road to the south.

Table 3.7: Refined Directional Trip Distribution Assumptions

Direction	Study Area Trip Distribution
North	50%
South	50%

3.1.3 TRIP ASSIGNMENT

Additional Lansdowne 2.0 site generated trips were assigned to the study area road network based on the assumed trip distribution assumptions. In addition, a review of existing traffic data was performed to estimate the traffic volume split between Bank Street, Holmwood Avenue, and Queen Elizabeth Driveway.

Currently, 65% of Lansdowne specific public traffic utilizes Bank Street for access to/from Lansdowne, with the remaining 35% utilizing QED.

Based on parking gate data provided by OSEG for the private residential Holmwood garage ramp, it is estimated that there are approximately 90 residential vehicles utilizing the Holmwood residential garage access per day.

It is assumed that the new residential tenants will also have access to the Holmwood garage ramp. As a result, a proportion of new residential based trips were assumed to utilize the private, restricted-use Holmwood garage ramp for access.

The following site access assumptions were adopted:

- **55%** of new site trips are assumed to access Lansdowne via Bank Street.
- **30%** of new site trips are assumed to access Lansdowne via Queen Elizabeth Driveway.
- **15%** of new site trips, specifically a proportion of additional residential trips, are assumed to access the underground private garage access via Holmwood Avenue.

In the Sunday scenario analysed in this study, Queen Elizabeth Driveway is closed north of Fifth Avenue as part of NCC programming along the Rideau Canal. Therefore, the inbound site trips accessing Queen Elizabeth Driveway from the North in other scenarios will instead enter via Bank Street. The site trips exiting northbound on Queen Elizabeth Drive will be directed north along O' Connor Street.

Table 3.8 summarizes new Lansdowne 2.0 site generated vehicle trips and their respective assignment to Bank Street, Queen Elizabeth Driveway, and the private underground parking garage access ramp.

Table 3.8: Trip Assignment for Newly Generated Trips

Access	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Peak Hour		Sunday Peak Hour	
	In	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**
Bank Street	19	72	44	29	49	39	49	47
Queen Elizabeth Driveway	11	39	24	16	27	21	27	26
Holmwood Access*	5	20	12	8	13	11	13	13
Total New Vehicle Trips	**35**	**130**	**79**	**52**	**89**	**71**	**89**	**86**
	165		**132**		**159**		**175**	

** Holmwood Access: Lansdowne residents access to private, restricted-use garage access.*

Figure 3.1 illustrates the assumed site trip assignment assumptions for Lansdowne 2.0 additional vehicle trips.

Lansdowne 2.0 additional site generated vehicle trips are illustrated in Figure 3.2 through Figure 3.4.

Figure 3.1: Lansdowne 2.0 Site Traffic Assignment Assumptions

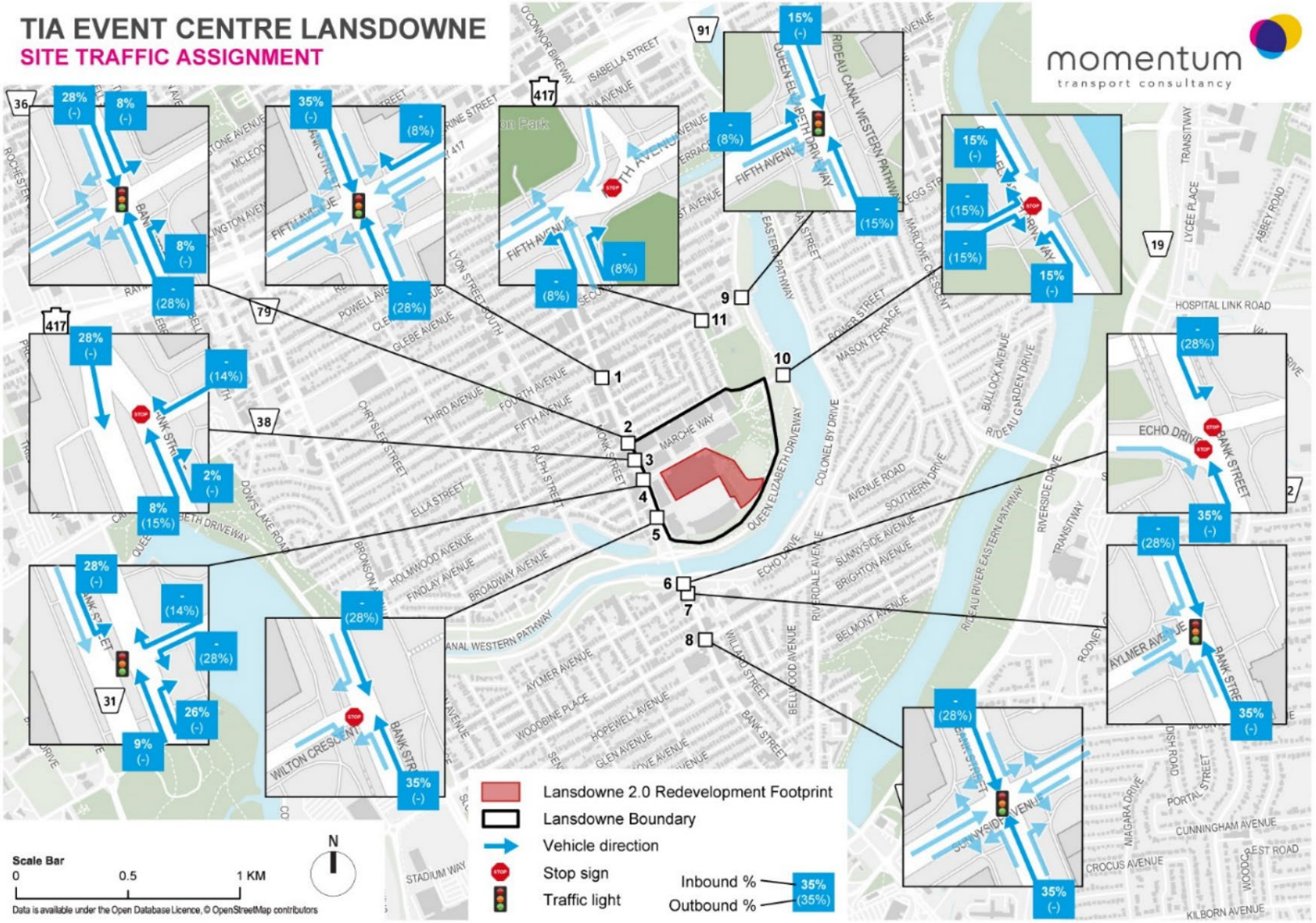


Figure 3.2: Lansdowne 2.0 Site Volumes (Weekday AM/PM Peak)

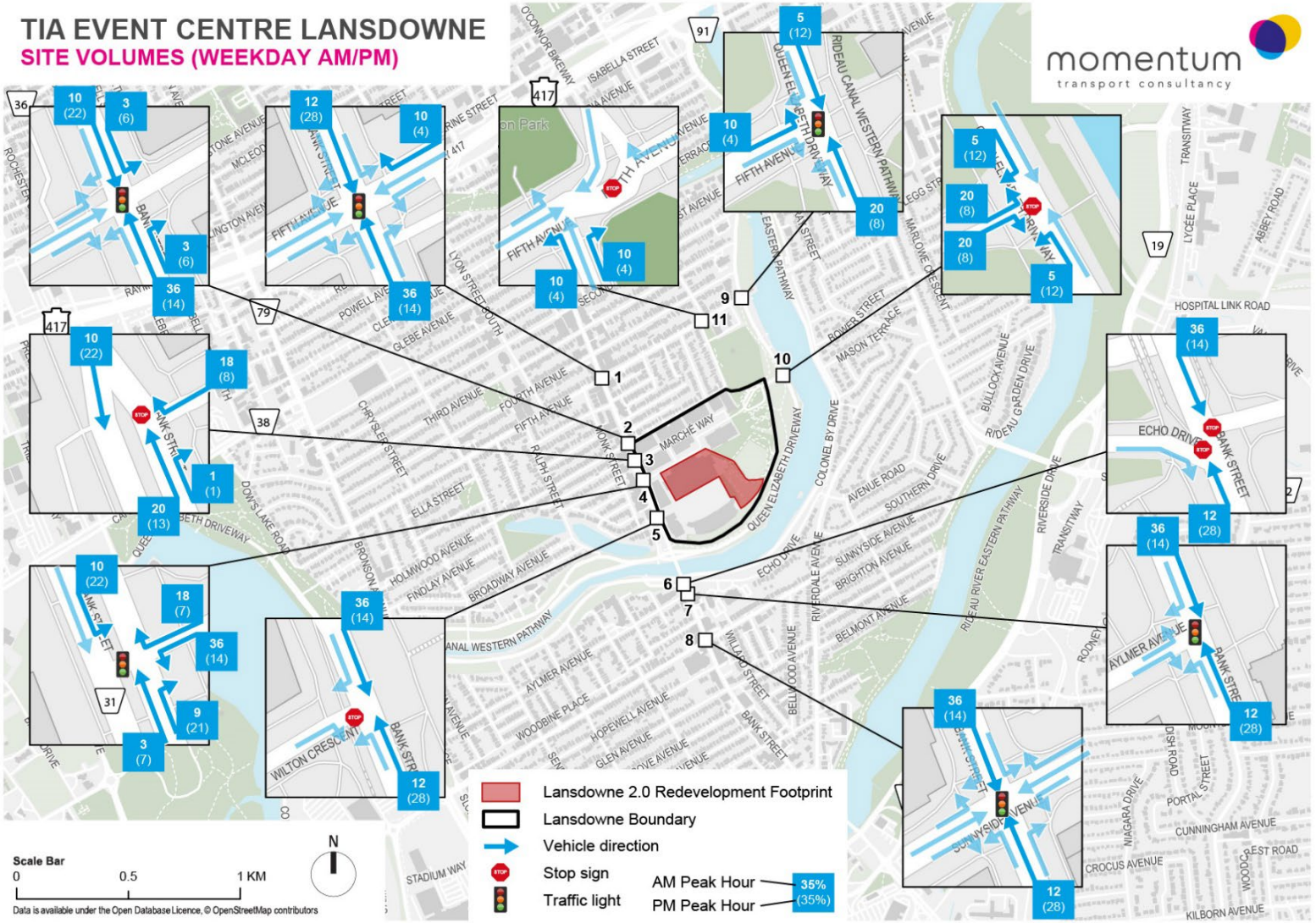


Figure 3.3: Lansdowne 2.0 Site Volumes (Saturday Peak)

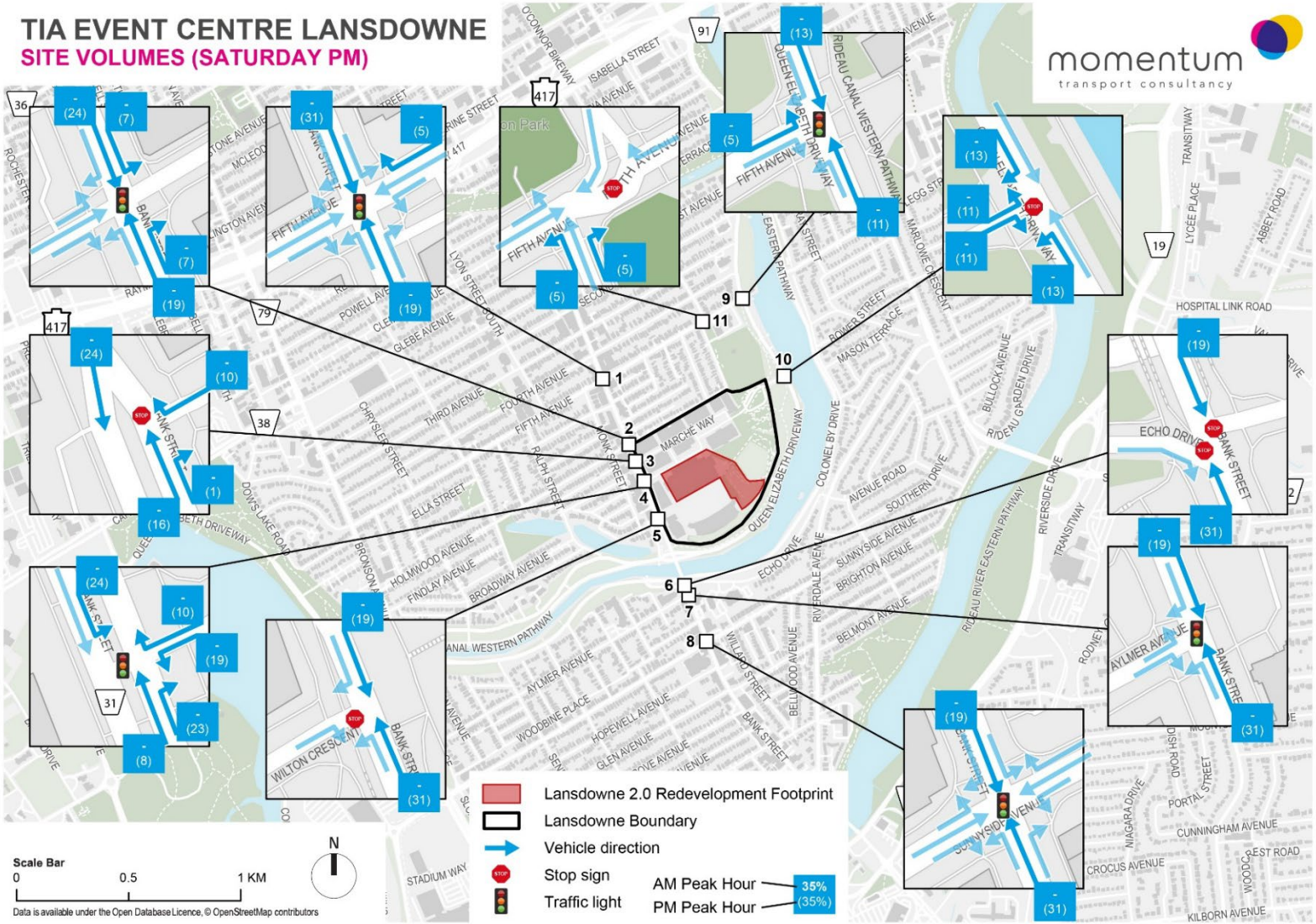
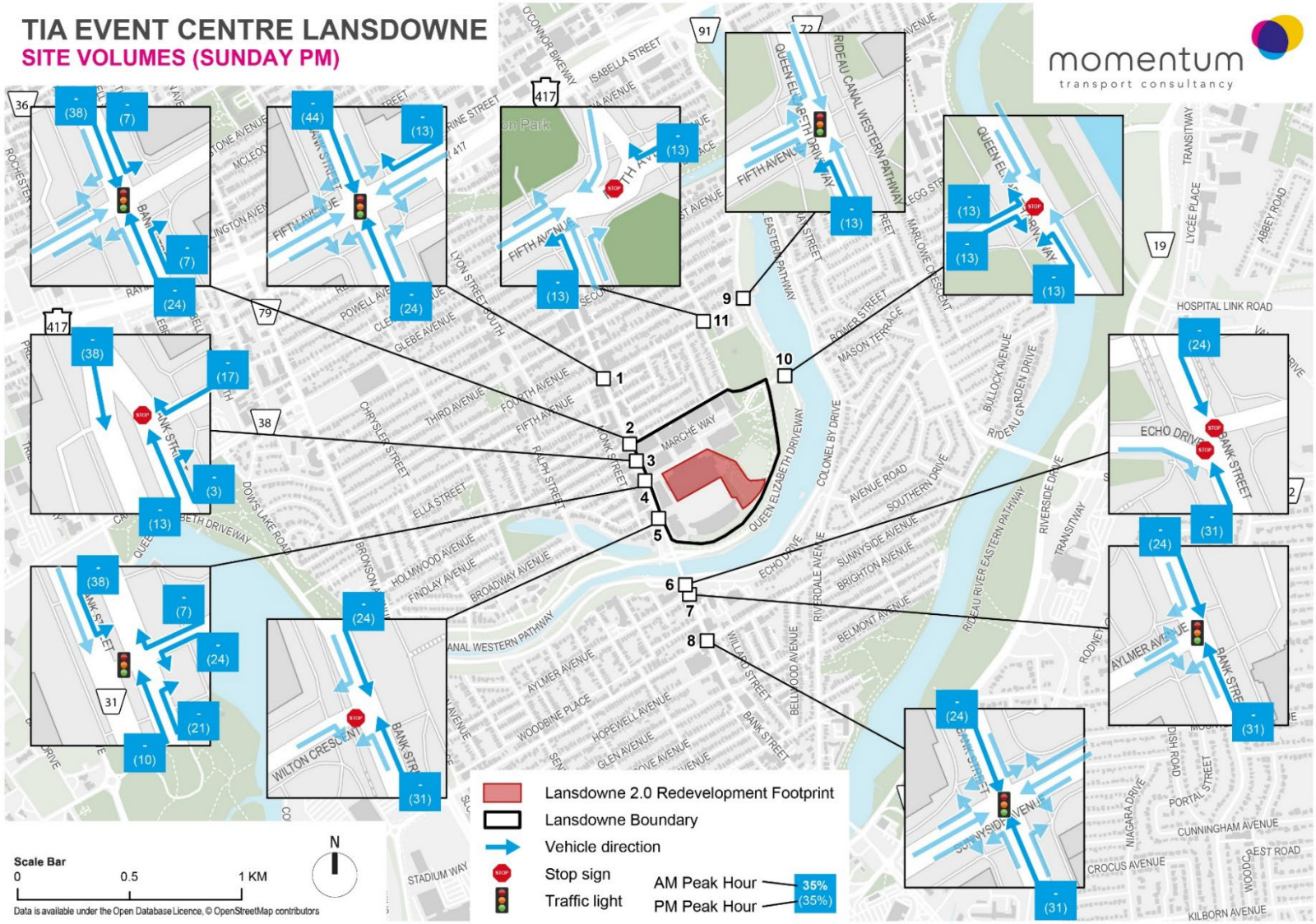


Figure 3.4: Lansdowne 2.0 Site Volumes (Sunday Peak)



3.2 Background Network Travel Demands

3.2.1 TRANSPORTATION NETWORK PLANS

The only road infrastructure project that is identified in the City of Ottawa Transportation Master Plan within the vicinity of Lansdowne is the proposed Transit Priority Corridor improvements on Bank Street.

In May 2022, City of Ottawa Transportation Committee directed staff to undertake an Active Transportation and Transit Operations Feasibility Study project of Bank Street between the Rideau Canal to Highway 417. The study is currently underway with recommendations to City Council expected to be provided in Spring 2025.

3.2.2 BACKGROUND GROWTH

Based on data readily available for the City of Ottawa, the average annual growth rate for traffic volumes in the vicinity of Lansdowne ranges between -2% to +0.2%, indicating a general reduction or limited growth in vehicular traffic volume on Bank Street and the surrounding roadway network. As a result, a 0.5% annual background growth rate was applied to forecast future background growth in traffic volumes.

3.2.3 OTHER DEVELOPMENTS

As outlined in Section 2.1.8, a number of nearby developments near Lansdowne are currently under construction or scheduled to be constructed within the horizons of the study. The traffic volumes from these developments were obtained from their respective traffic studies, where available, and added to the transportation network as part of background traffic growth.

3.3 Demand Rationalization

The current peak hour traffic volumes along Bank Street are in the range of 500 – 800 vehicles per hour per direction. Similar volumes are exhibited on Queen Elizabeth Driveway with peak hour volumes in the range of 300 – 600 vehicles per hour per direction.

The traffic volumes forecasted under the 2033 future build-out year are projected to be in the range of 600 – 900 vehicles per hour per direction for Bank Street, and 350 – 700 vehicles per hour per direction for Queen Elizabeth Driveway.

As the projected volumes fall within a similar range to existing conditions and are likely to be supported by the transportation network, no demand rationalization was undertaken.

3.4 Future Traffic Volumes

3.4.1 2028 TOTAL FUTURE TRAFFIC VOLUMES

The 2028 Total Future horizon year represents the completion of Phase 1 of the Lansdowne 2.0 redevelopment program with the opening of the new multi-purpose Event Centre.

As the new multi-purpose Event Centre will not generate new additional transportation demands to Lansdowne, no new site generated trips have been added. A 0.5% annual growth rate was applied to existing traffic demands to account for background development growth.

It is anticipated that the new Event Centre will operate in an interim condition during construction of subsequent phases of Lansdowne 2.0: namely construction of the new North Stadium Stands (Phase 2), and the new podium retail and two residential towers (Phase 3).

During Phase 2 and Phase 3 construction of Lansdowne 2.0, site access is expected to be generally unaffected with access provided at both Bank Street and Queen Elizabeth Driveway. Site circulation within Lansdowne will need to be verified during Phase 2 and Phase 3 based on construability requirements and the construction footprint within Lansdowne, these details are expected to be addressed as part of the permitting and approvals of the subsequent Phase 2 and Phase 3.

While construction phasing details for Phase 2 and Phase 3 are still under development and will be addressed as part of subsequent approval phases, it is anticipated that during construction of Phase 2 and Phase 3, the underground parking garage ramp at Bank Street will be temporarily closed for public use to accommodate construction of the expanded underground parking garage for Lansdowne. The time and duration of impacts is still unknown.

To assess traffic operations during the operation of the new Event Centre, the 2028 horizon year was assumed to include the temporary closure of the Bank Street underground garage ramp. It is anticipated that access to Lansdowne from both Bank Street and Queen Elizabeth Driveway will be unaffected, with the temporary closure of the Bank Street garage ramp, public access to the underground parking garage will occur at the Princess Patricia Way underground garage ramp near Queen Elizabeth Driveway.

It is assumed that most of the traffic (assumption of **70%**) currently accessing the underground parking facilitates at the Exhibition Way underground garage ramp will continue to access Lansdowne on Bank Street and will travel through the site towards the Princess Patricia Way garage access.

The remaining portion of traffic (assumption of **30%**) currently accessing the underground parking facility at the Exhibition Way ramp near Bank Street are assumed to alter their travel patterns by shifting to Queen Elizabeth Driveway as the route to travel to Lansdowne. This includes **15%** diverting from Bank Street to Queen Elizbeth Driveway via Fifth Avenue, and **15%** choosing to travel on Queen Elizbeth Driveway further upstream as part of their journey to Lansdowne.

Figure 3.5 through Figure 3.13 summarize projected 2028 traffic volumes inclusive of background development growth and assumed internal circulation adjustments during the temporary closure of the Exhibition Way underground parking garage access during Phase 2 and Phase 3 construction.

Figure 3.5: 2028 Total Future Traffic Volumes (Weekday AM / PM)

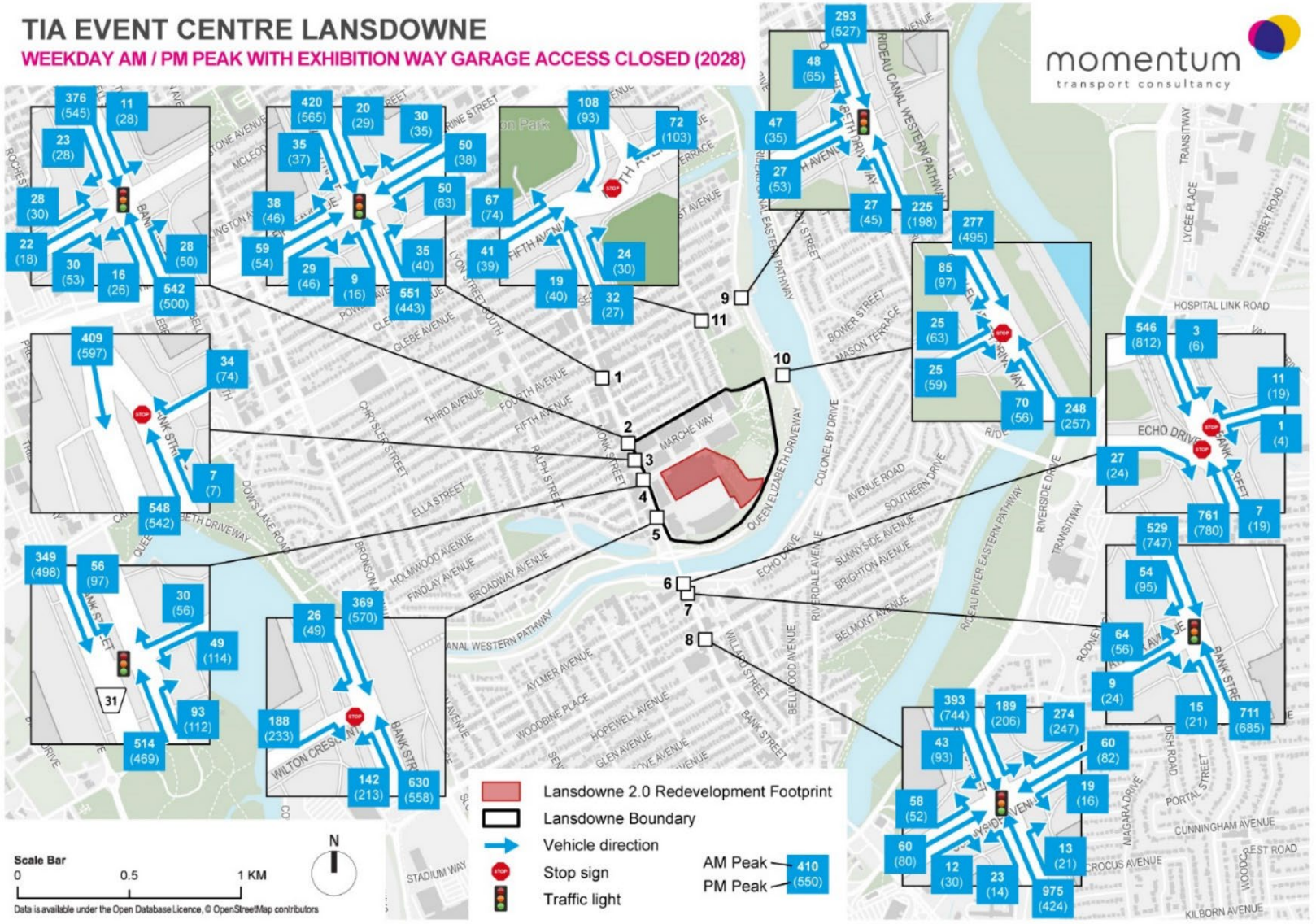


Figure 3.6: 2028 Total Future Traffic Volumes On-site (Weekday AM / PM)

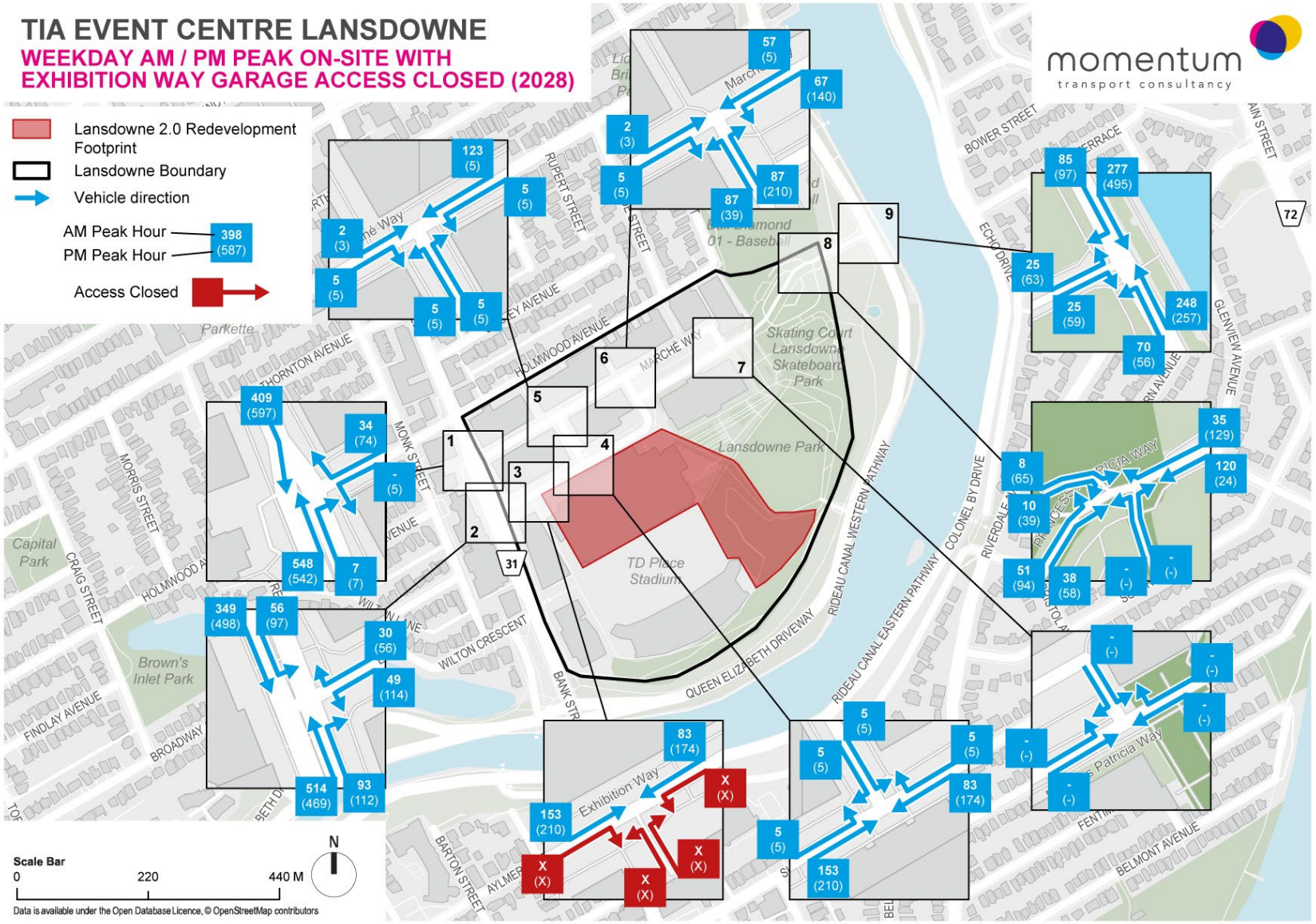


Figure 3.7: 2028 Total Future Traffic Volumes (Saturday PM)

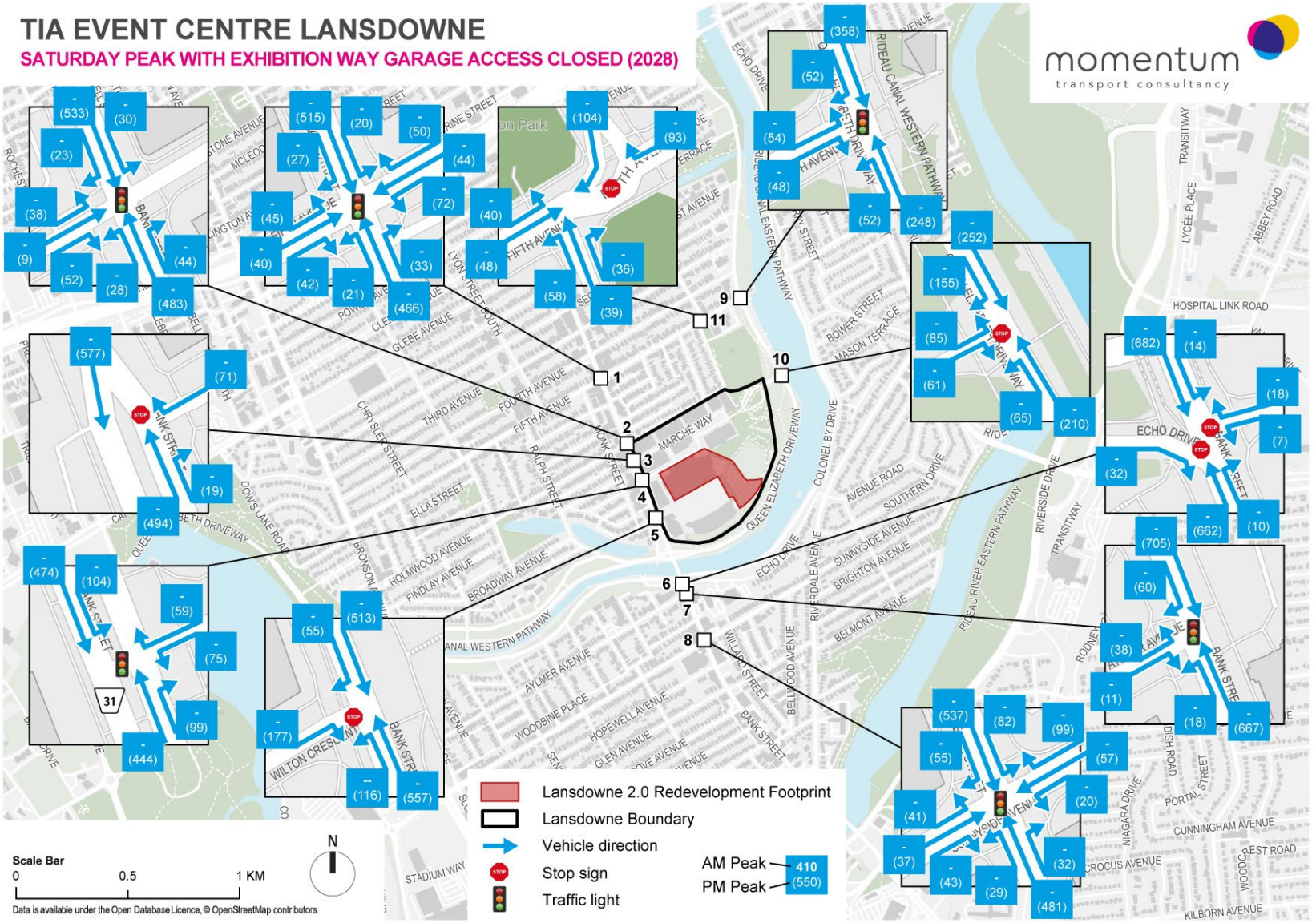


Figure 3.8: 2028 Total Future Traffic Volumes on-site (Saturday PM)

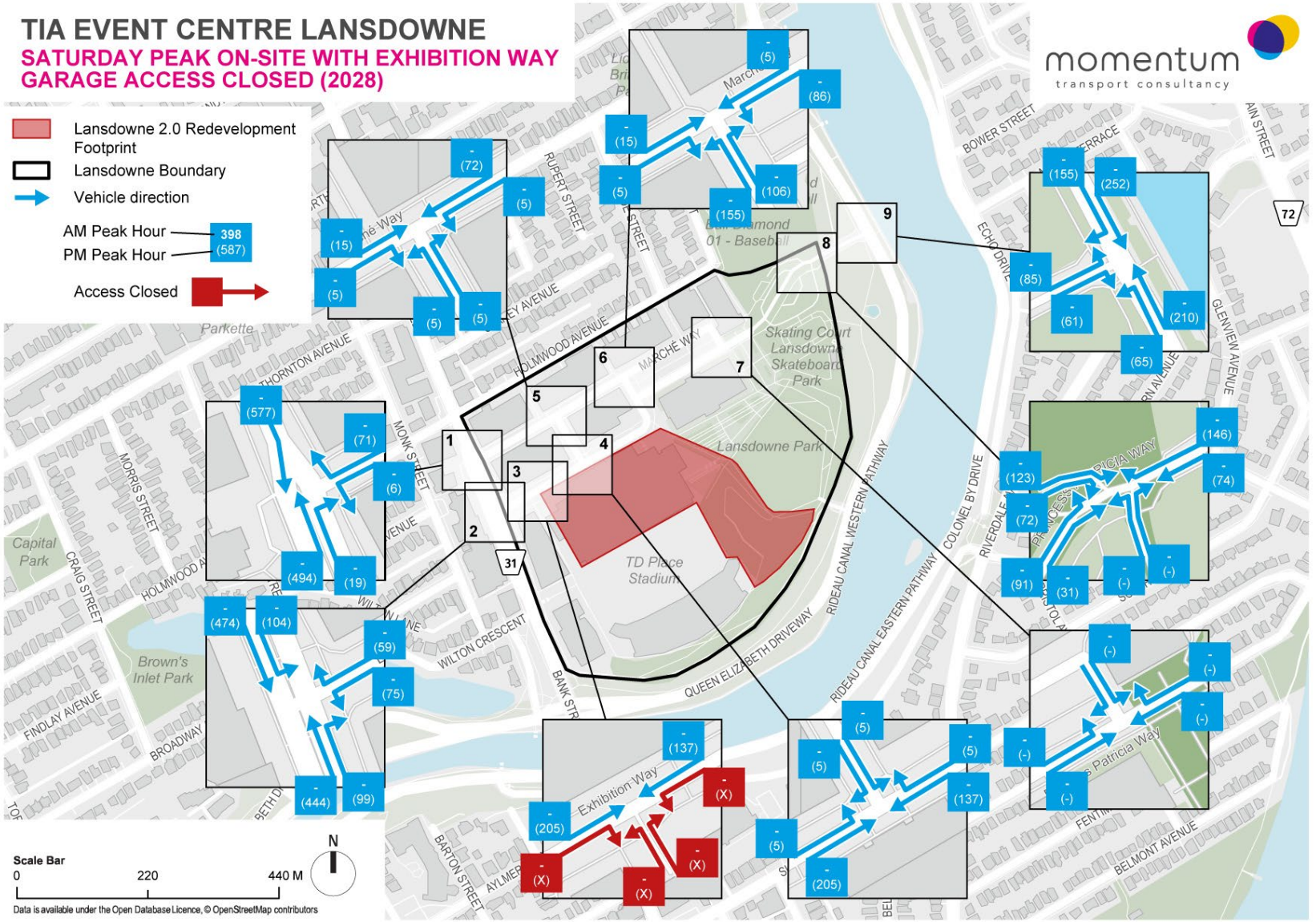


Figure 3.9: 2028 Total Future Traffic Volumes (Sunday PM)

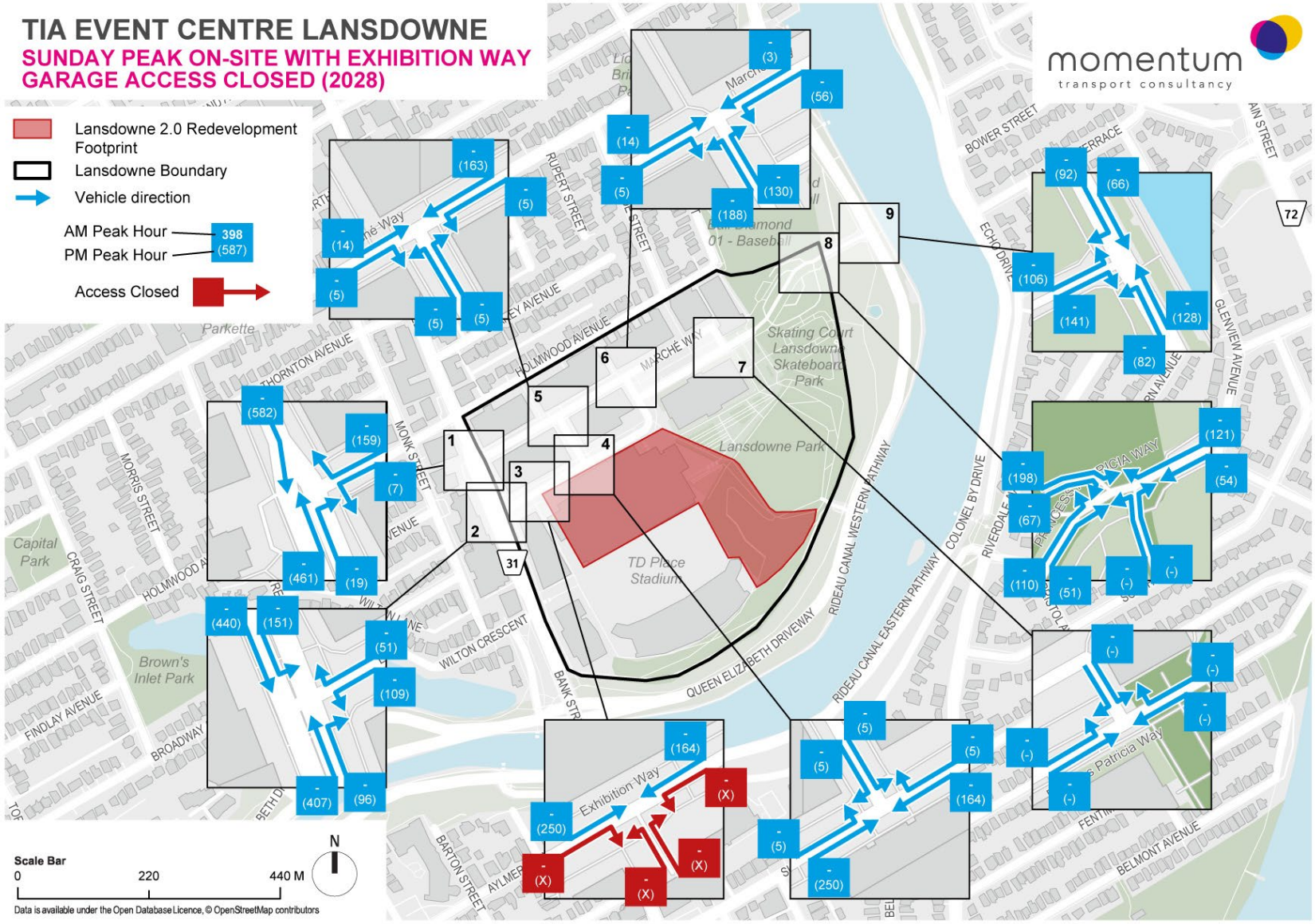


Figure 3.10: 2028 Total Future Traffic Volumes on-site (Sunday PM)

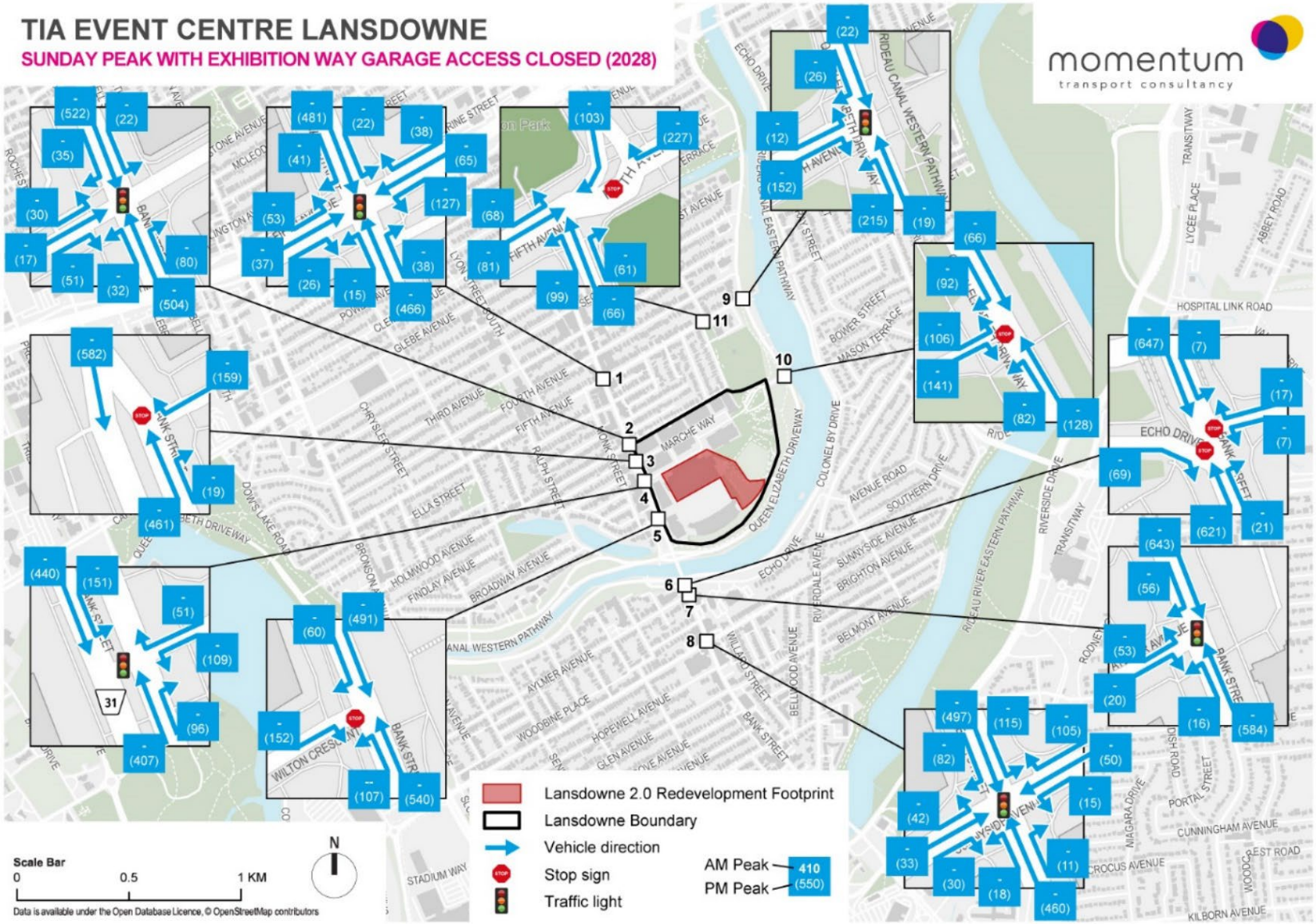


Figure 3.11: 2028 Total Future Traffic Volumes Minor Event

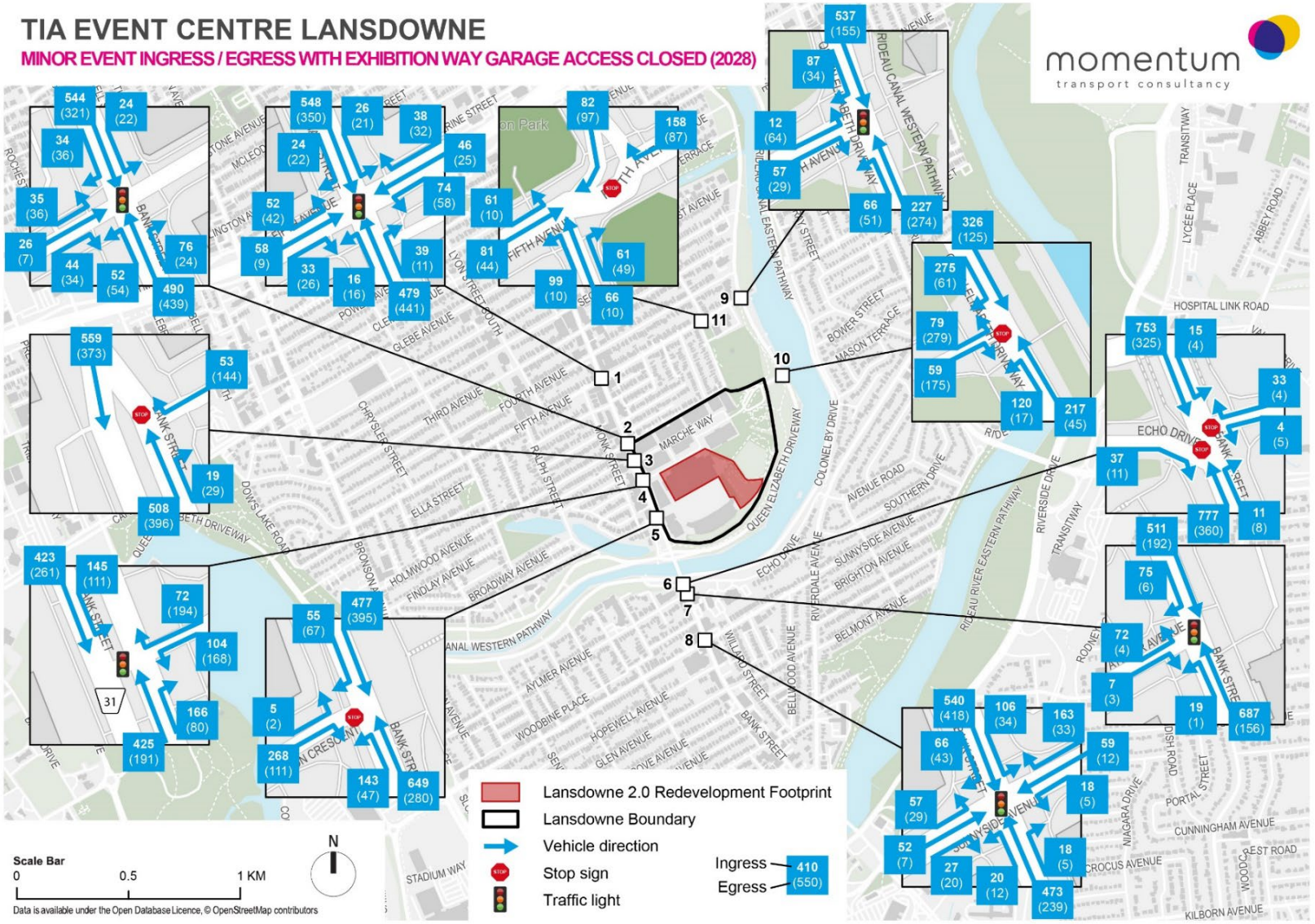


Figure 3.12: 2028 Total Future Traffic Volumes on-site Minor Event

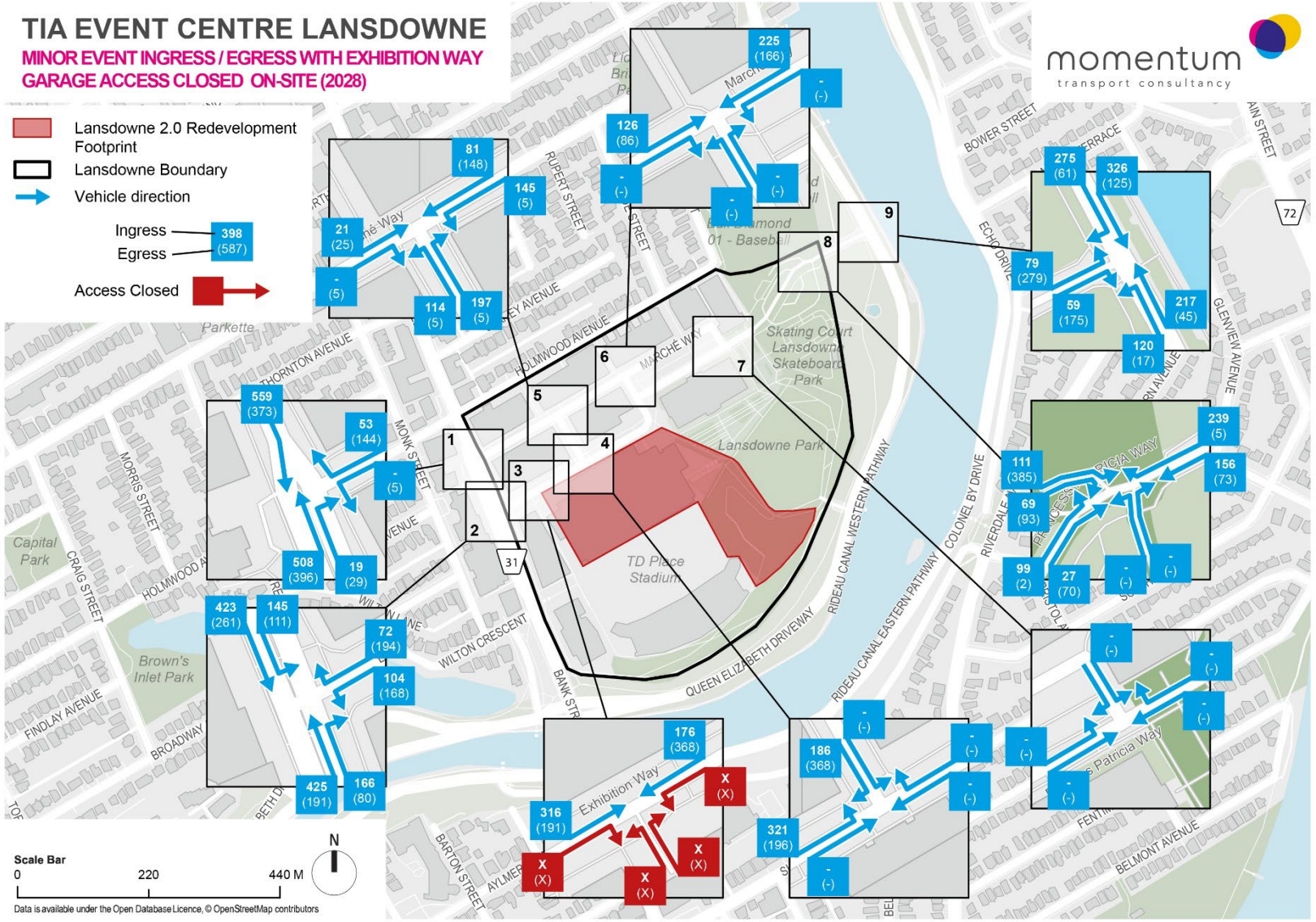
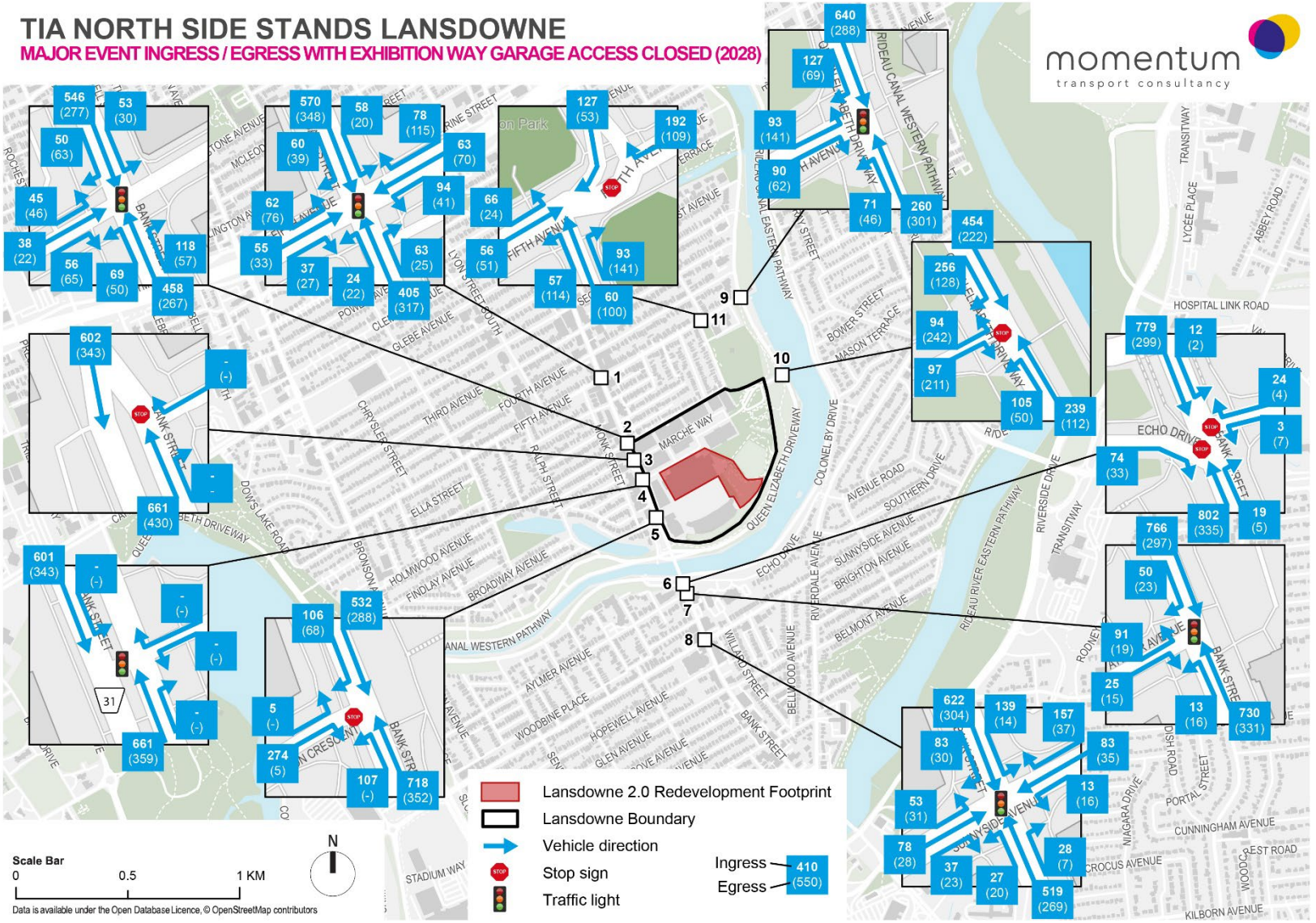


Figure 3.13: 2028 Total Future Traffic Volumes Major Event



3.4.2 2033 TOTAL FUTURE TRAFFIC VOLUMES

The 2033 Total Future horizon year represents the full build-out of the Lansdowne 2.0 redevelopment project inclusive of the new Event Centre (Phase 1), North Stadium Stands (Phase 2), and additional retail podium and two residential towers (Phase 3).

2033 Total Future traffic volumes were developed by applying a 0.5% background growth rate, explicit background development volumes from nearby developments, as well as new additional site generated trips as outlined in Table 3.8 and Figure 3.1 through Figure 3.4.

Similar to 2028 conditions, 2033 Total Future traffic volumes were derived by applying an assumed background growth rate of 0.5% per year to existing traffic volumes. Additionally, explicit background development traffic, as well as the Lansdowne 2.0 site generated traffic volumes were added.

Figure 3.14 through Figure 3.31 summarize projected 2033 traffic volumes inclusive of background development growth and full-build out site generated traffic volumes for Lansdowne 2.0.

Figure 3.14: 2033 Future Background Traffic Volumes Weekday AM PM Peak

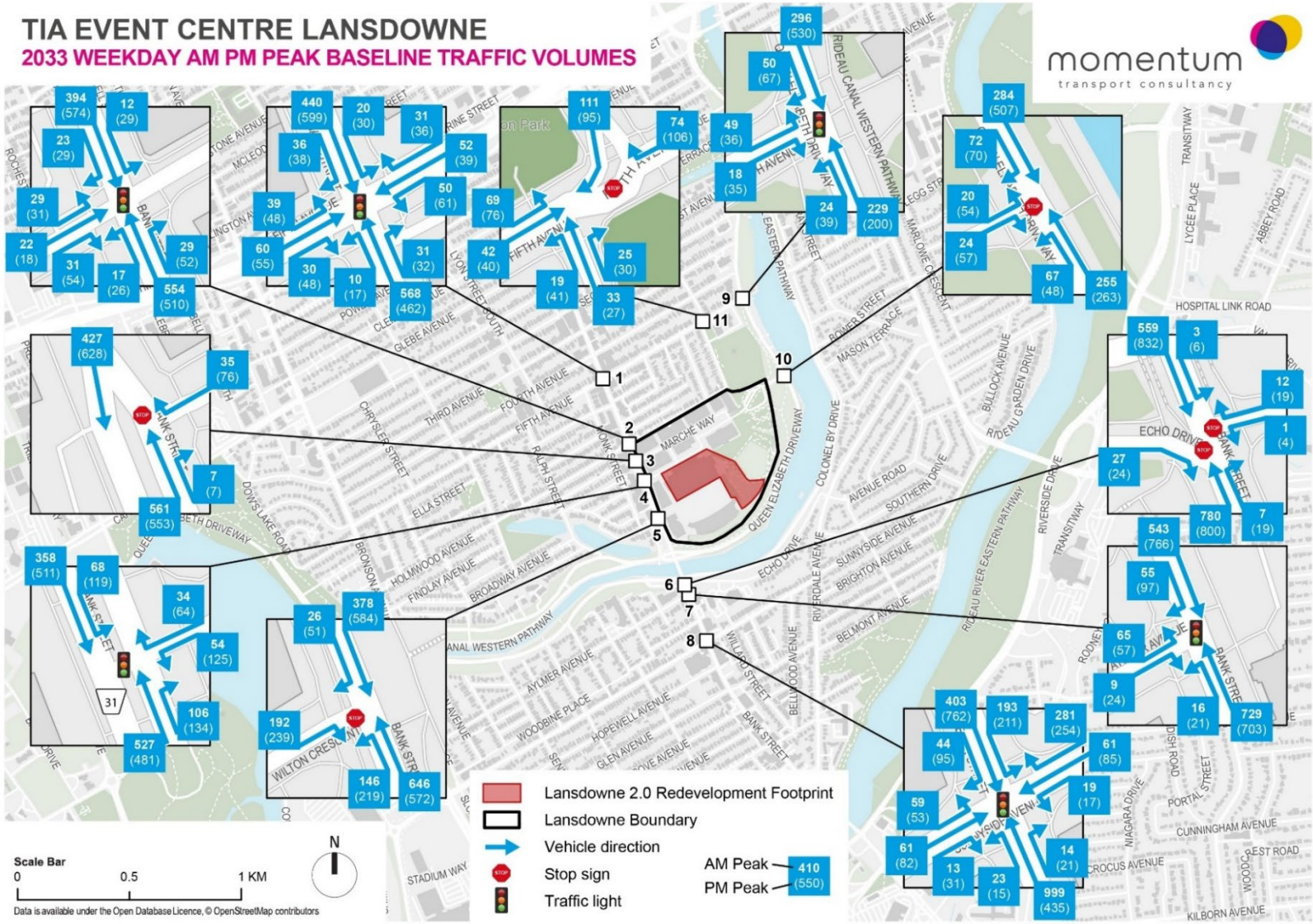


Figure 3.15: 2033 Future Background Traffic Volumes Weekday AM PM Peak On-Site

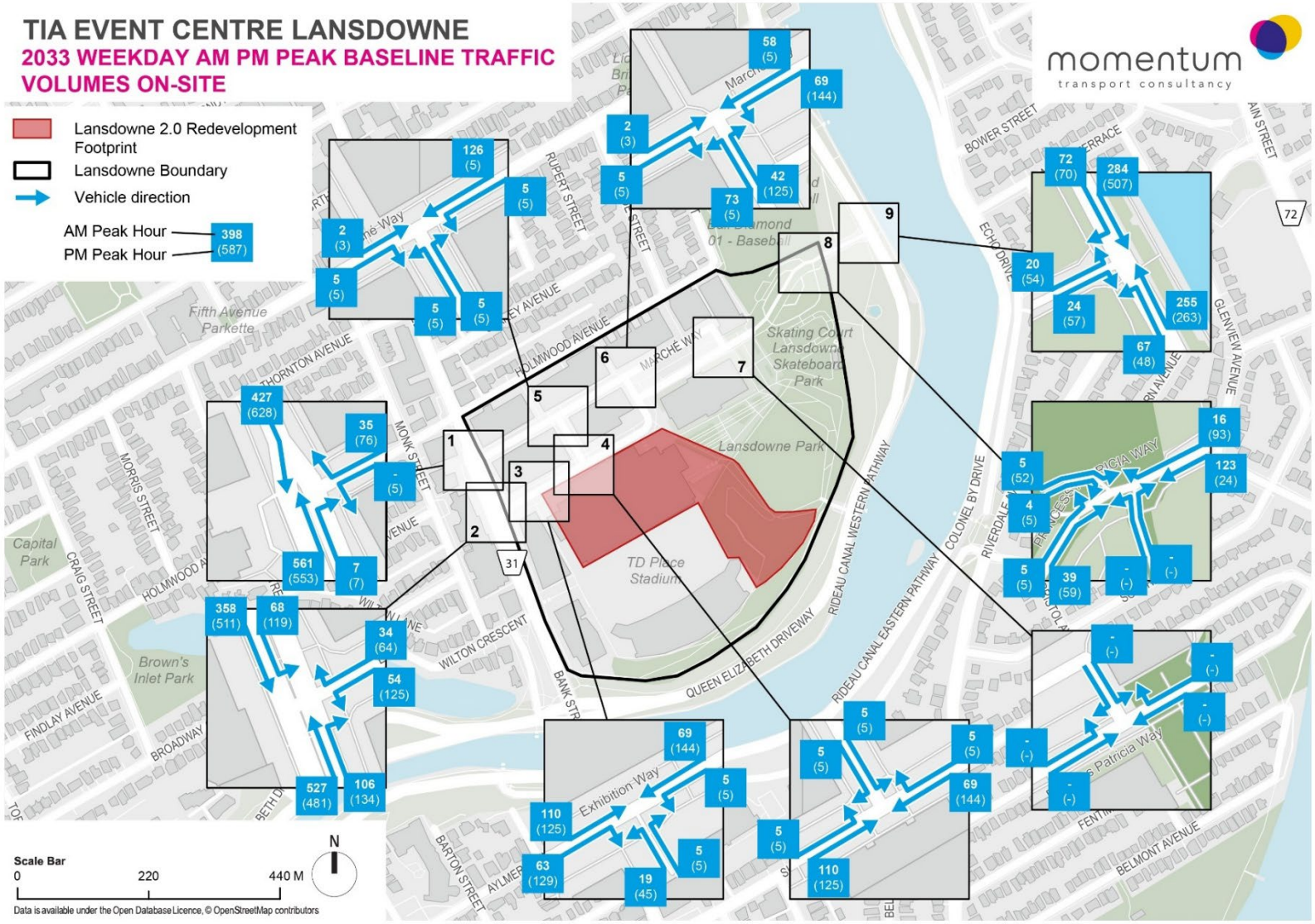


Figure 3.16: 2033 Future Background Traffic Volumes Saturday Peak

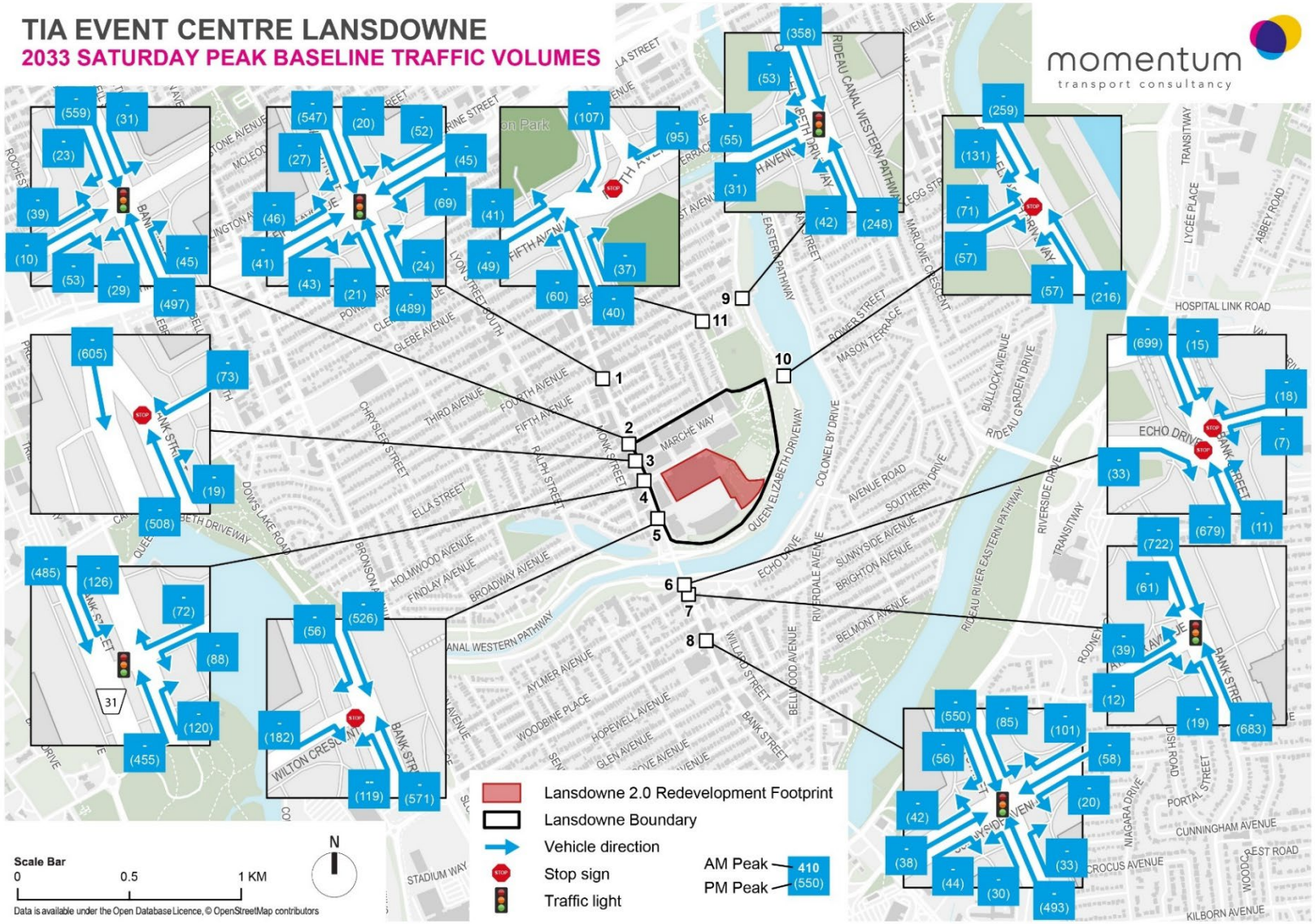


Figure 3.17: 2033 Future Background Traffic Volumes Saturday Peak On-Site

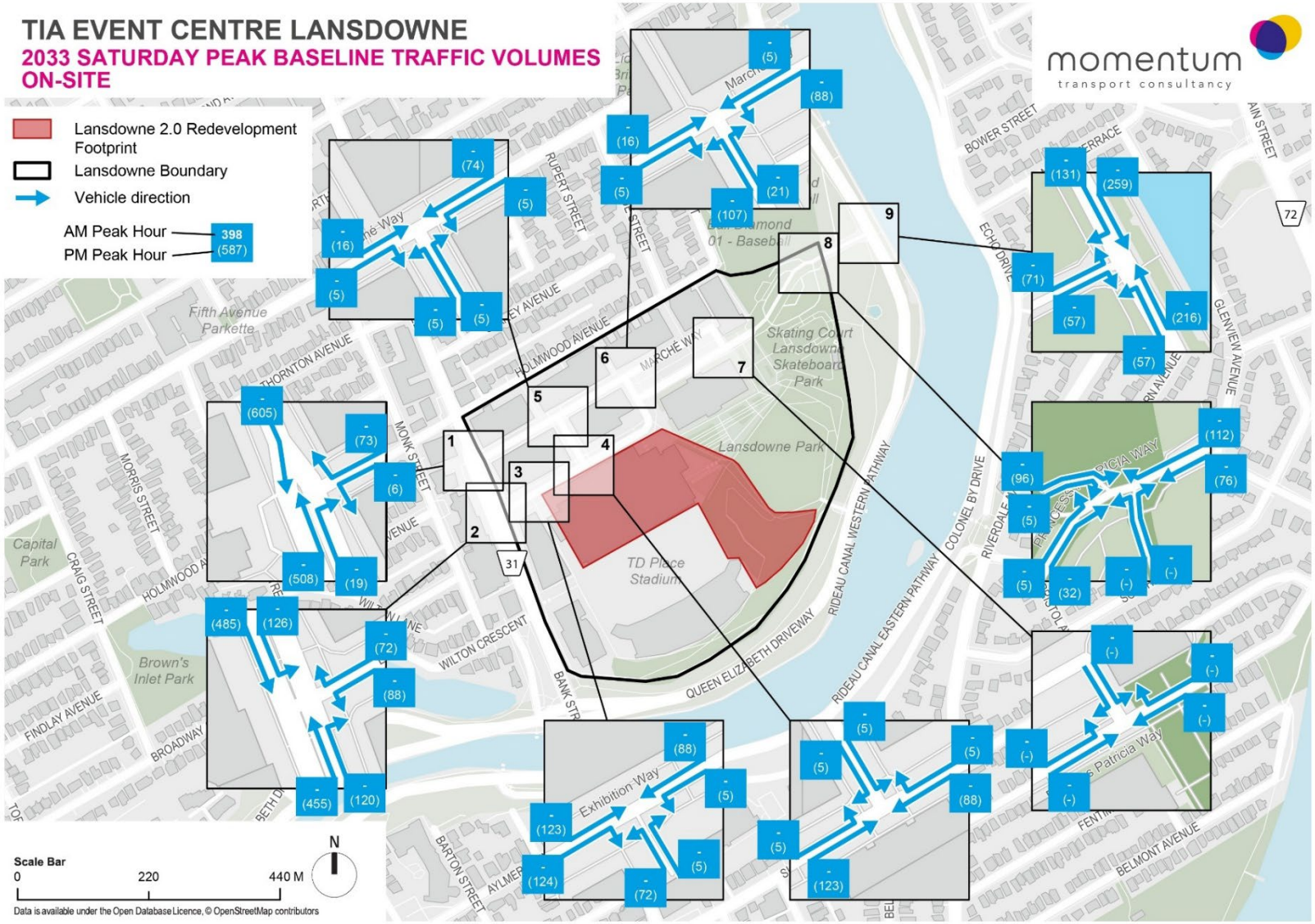


Figure 3.18: 2033 Future Background Traffic Volumes Sunday Peak

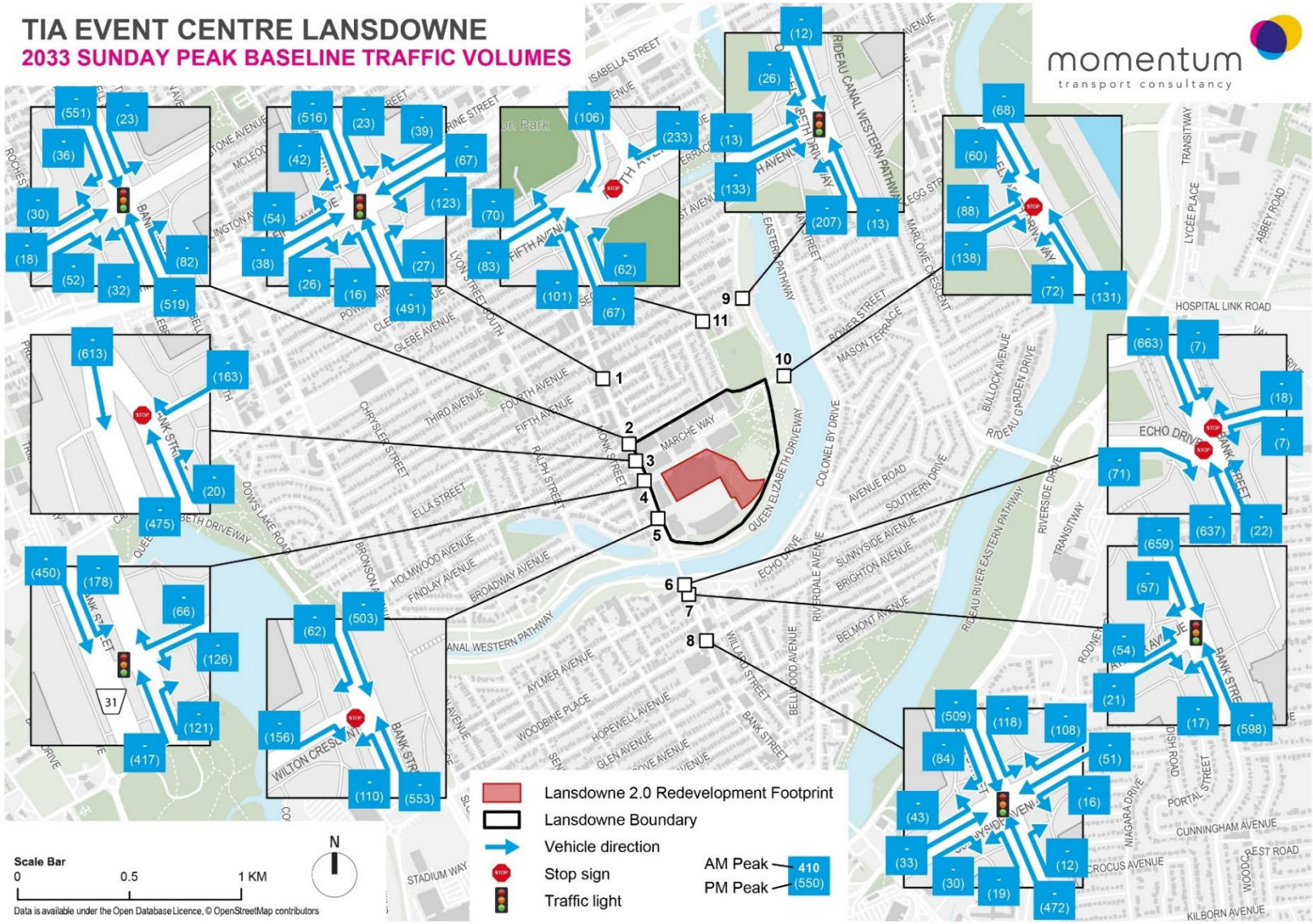


Figure 3.19: 2033 Future Background Traffic Volumes Sunday Peak On-Site

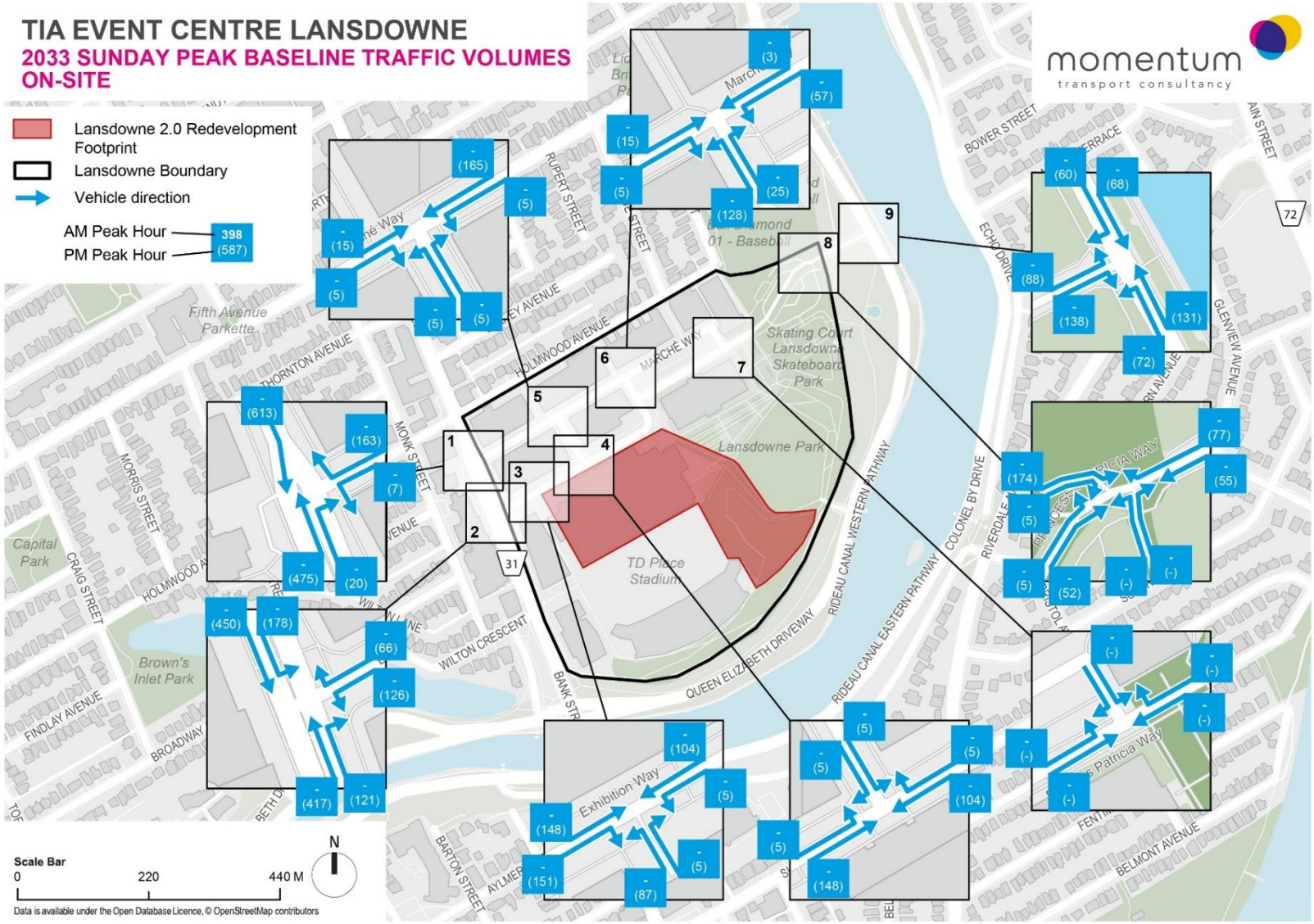


Figure 3.20: 2033 Future Background Traffic Volumes Minor Event

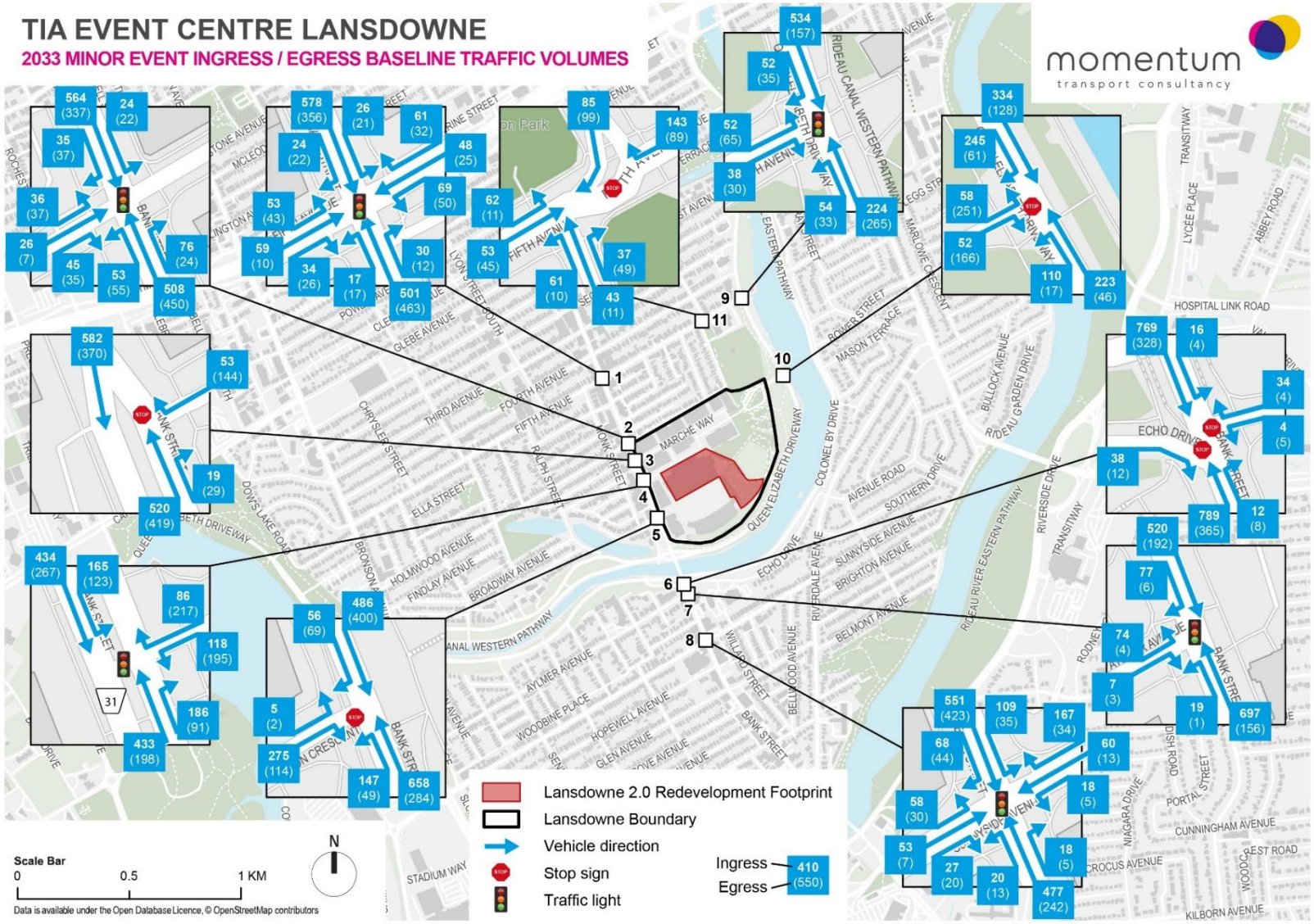


Figure 3.21: 2033 Future Background Traffic Volumes Minor Event On-Site

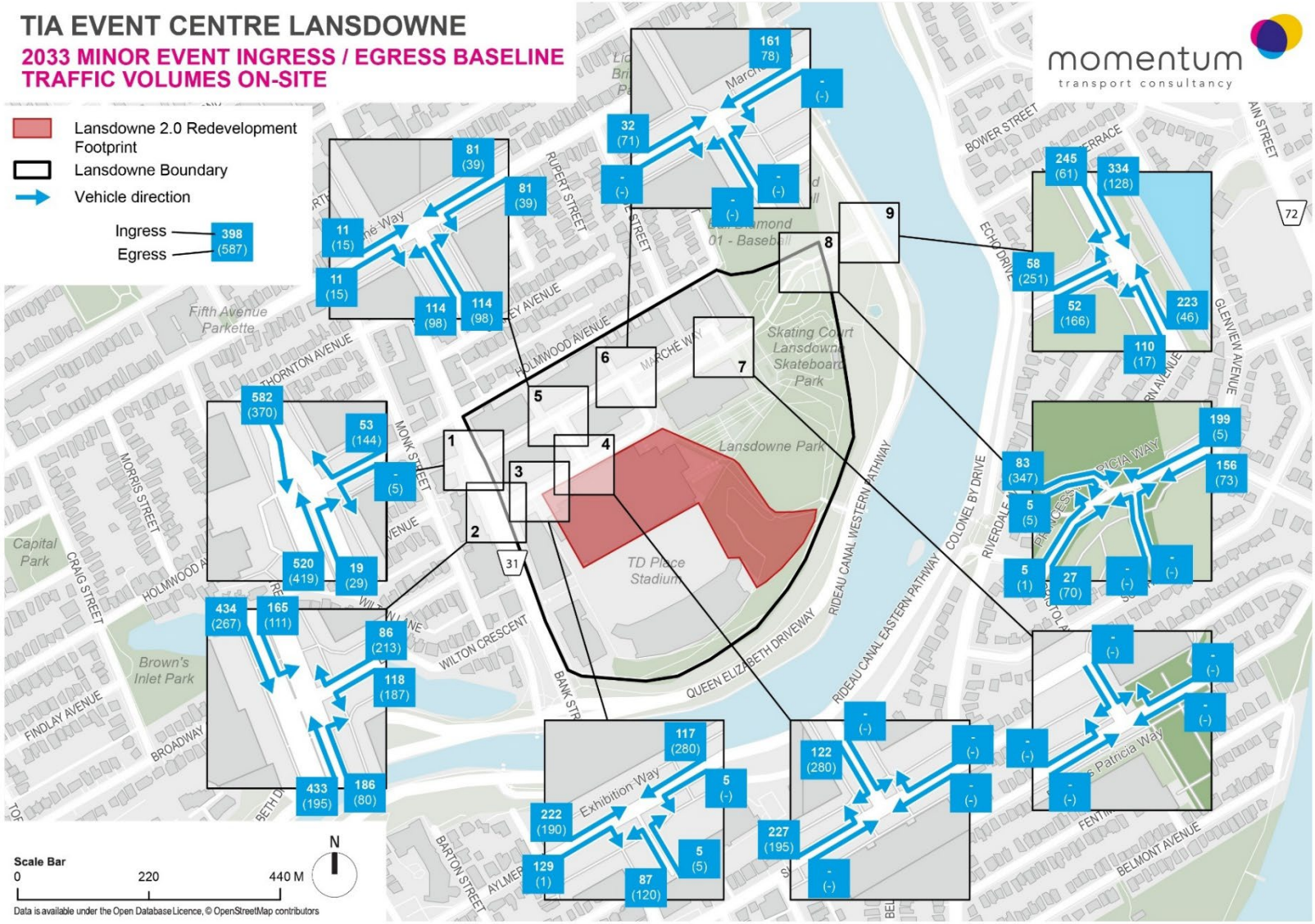


Figure 3.22: 2033 Future Background Traffic Volumes Major Event

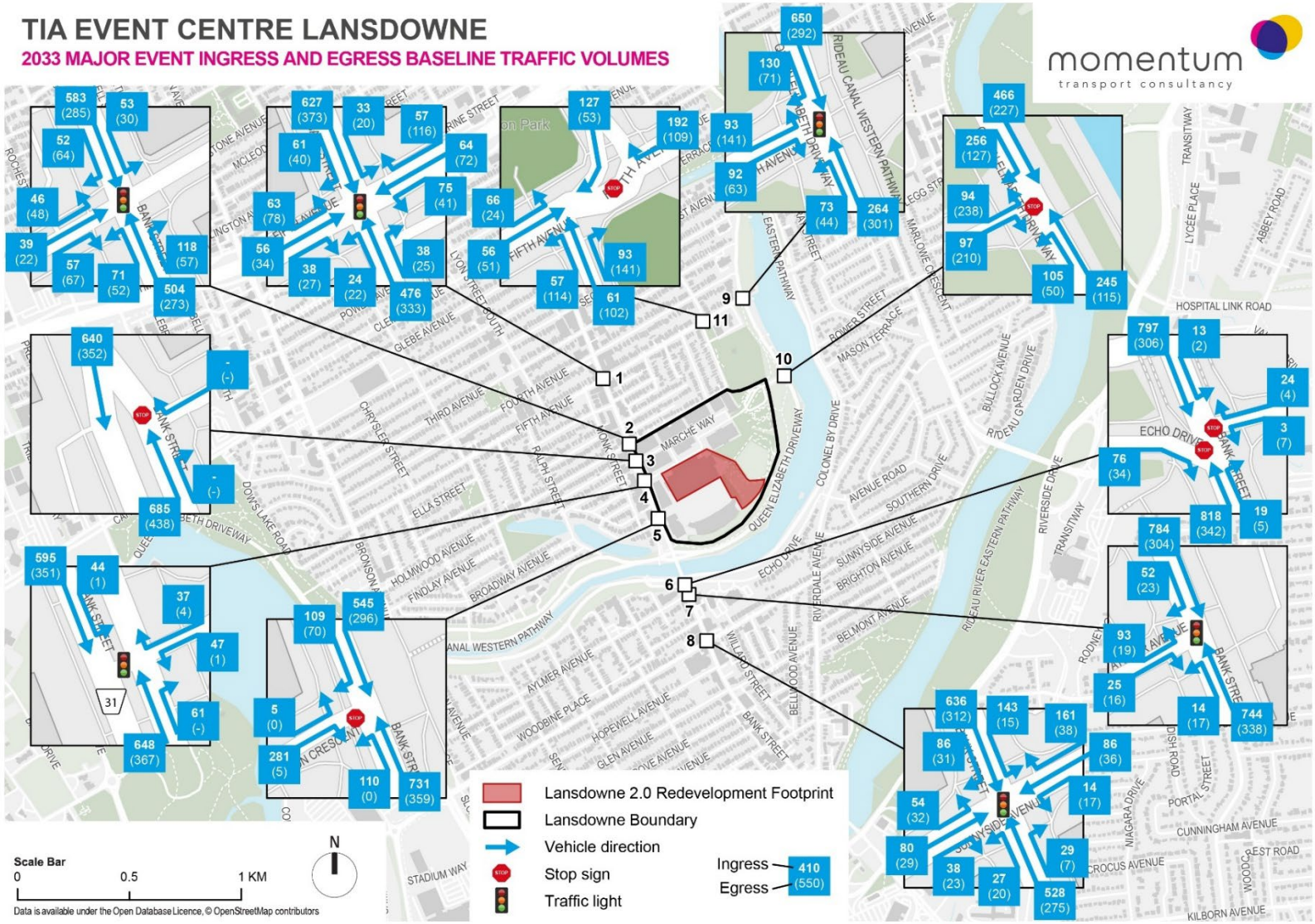


Figure 3.23: 2033 Total Future Traffic Volumes (Weekday AM / PM)

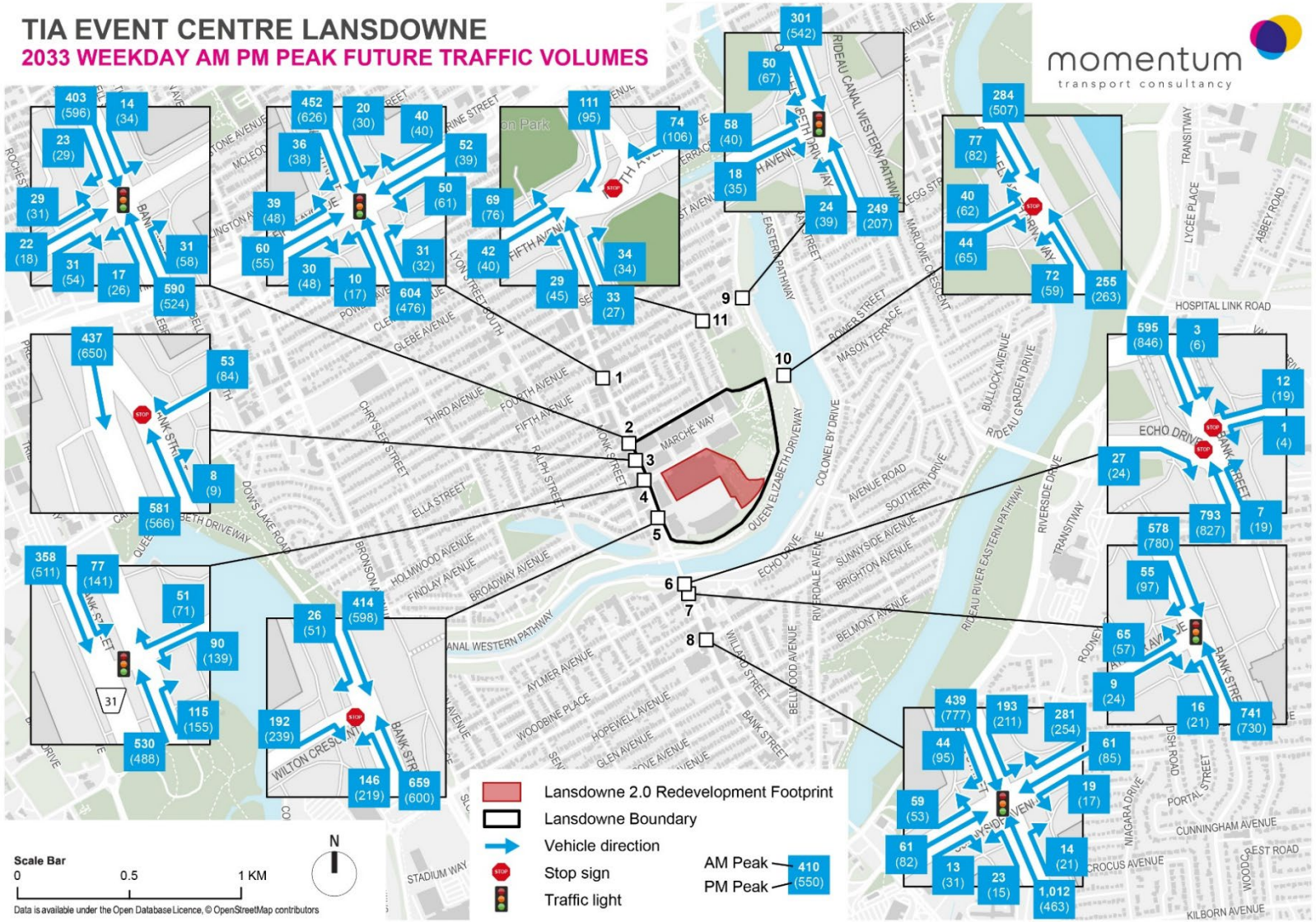


Figure 3.24: 2033 Total Future Traffic Volumes Weekday AM PM Peak On-Site

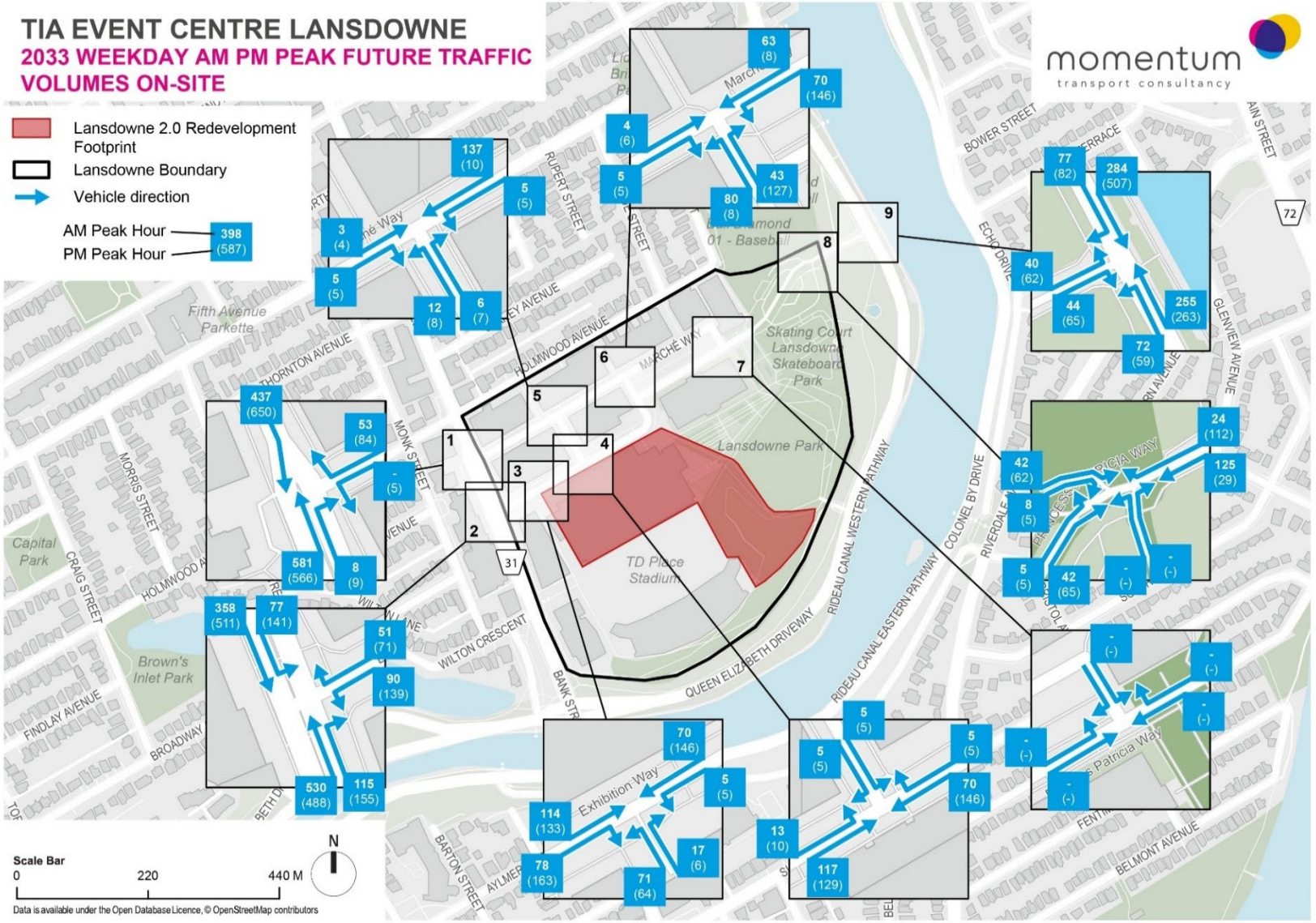


Figure 3.25: 2033 Total Future Traffic Volumes (Saturday PM)

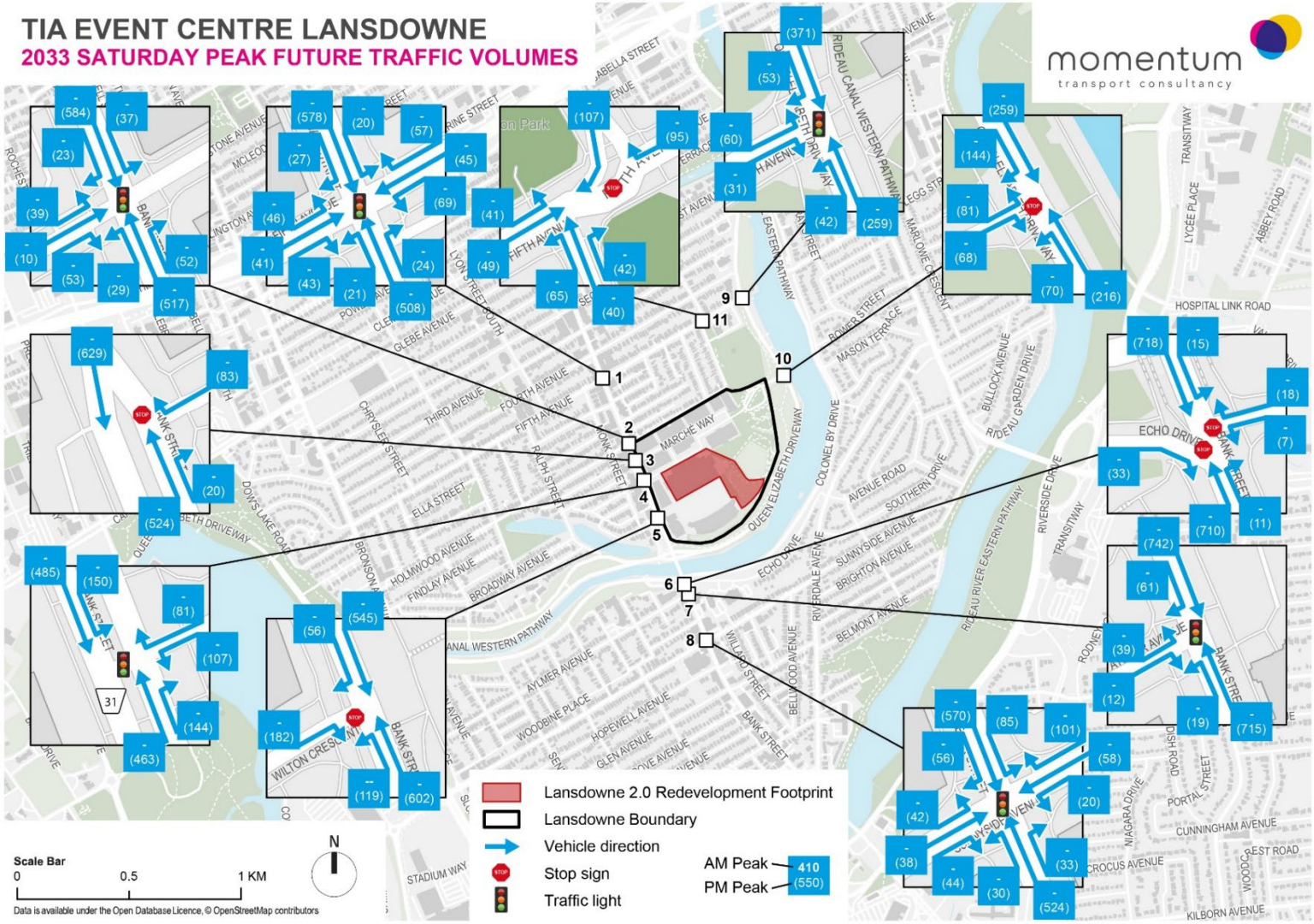


Figure 3.26: 2033 Total Future Traffic Volumes Saturday Peak On-Site

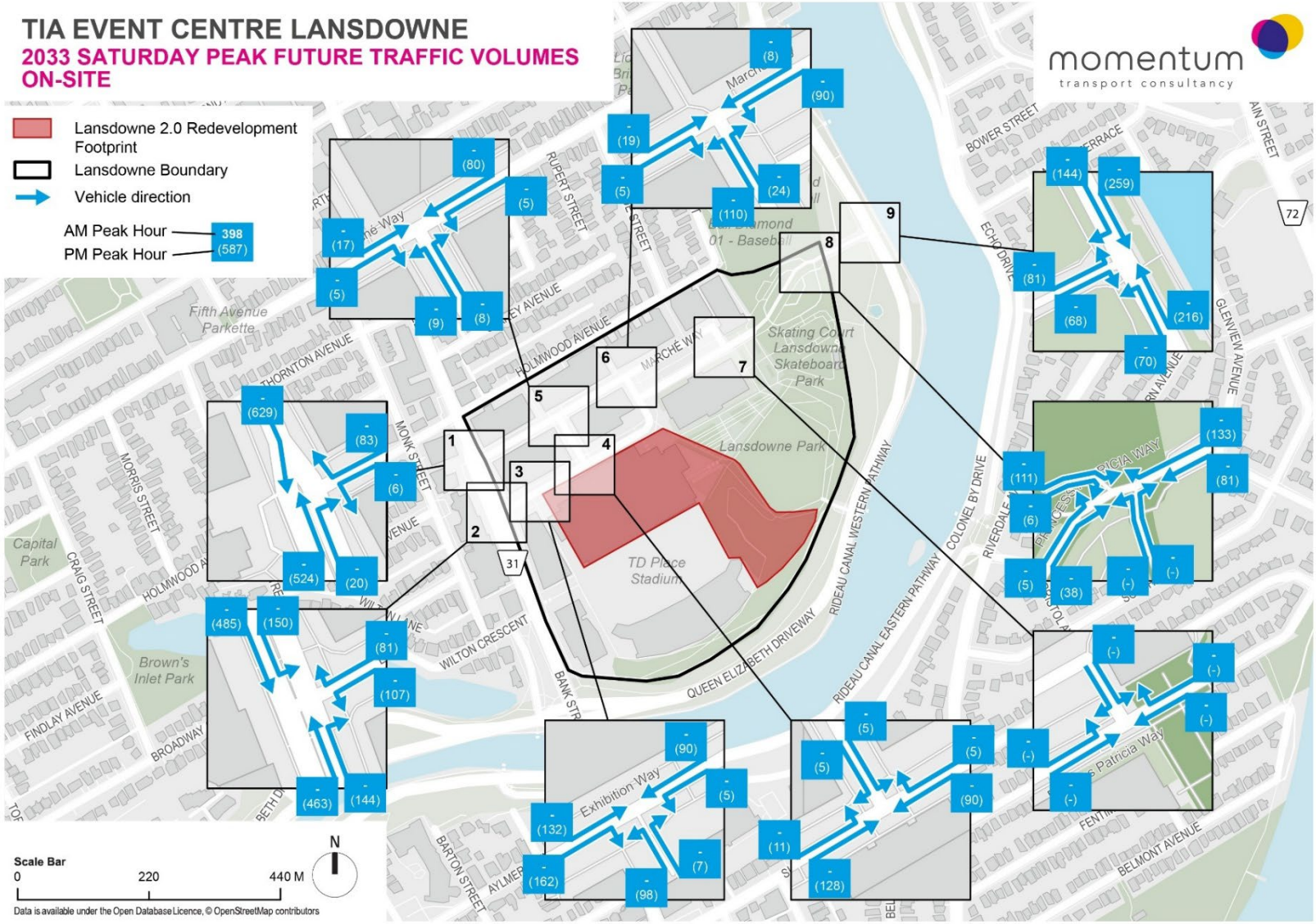


Figure 3.27: 2033 Total Future Traffic Volumes (Sunday PM)

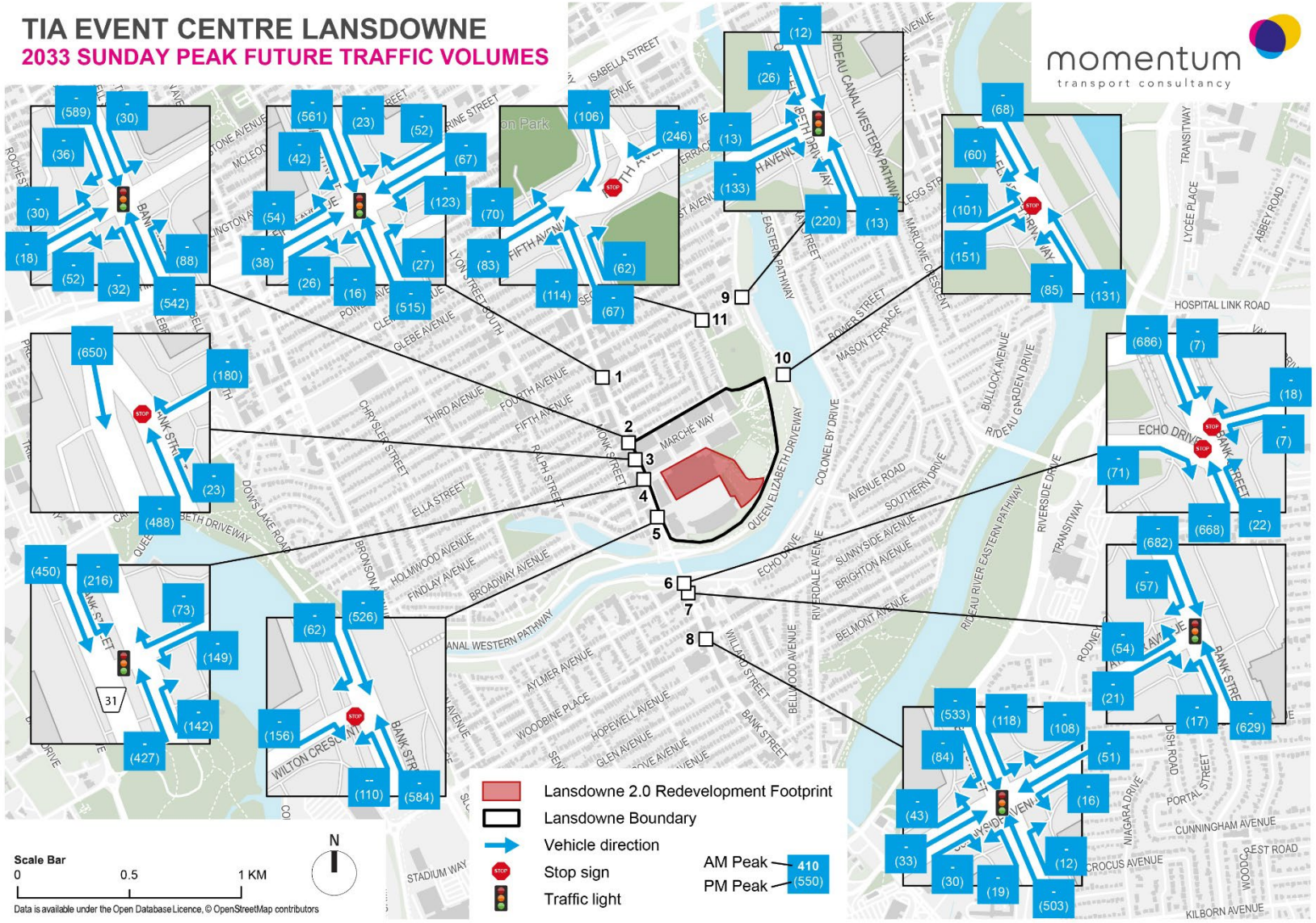


Figure 3.28: 2033 Total Future Traffic Volumes Sunday Peak On-Site

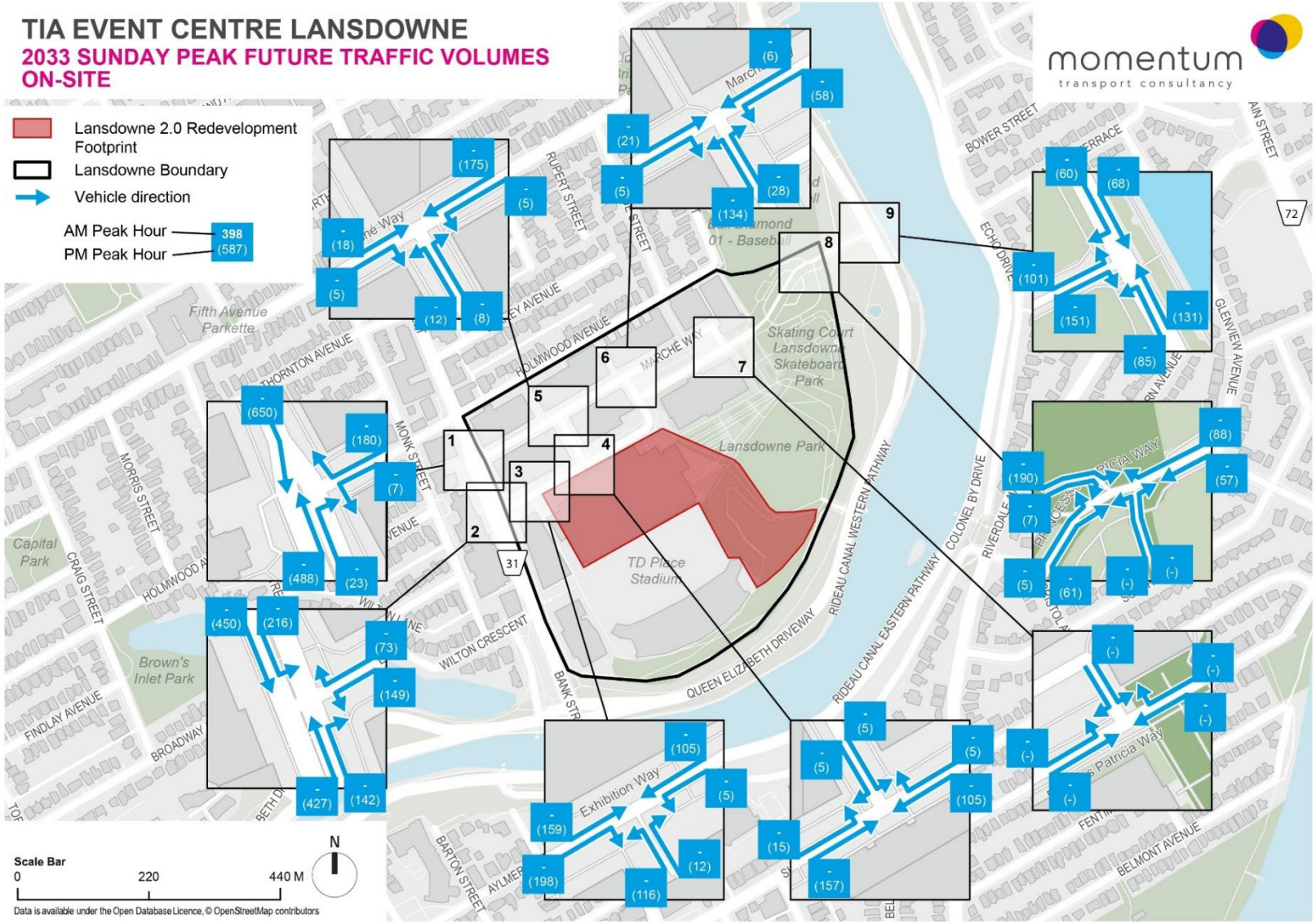


Figure 3.29: 2033 Total Future Traffic Volumes Minor Event (Ingress and Egress)

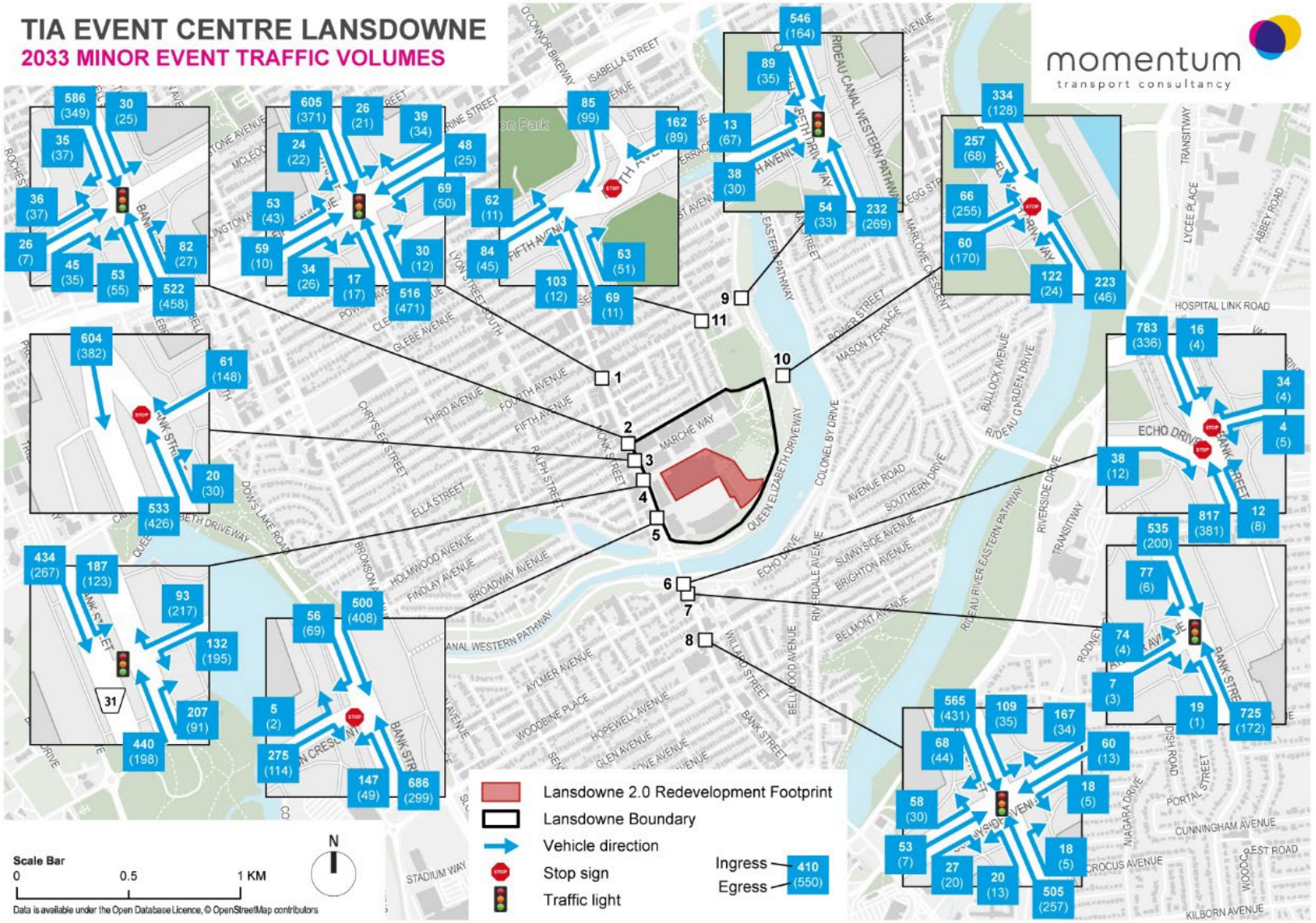


Figure 3.30: 2033 Total Future Traffic Volumes Minor Event On-Site

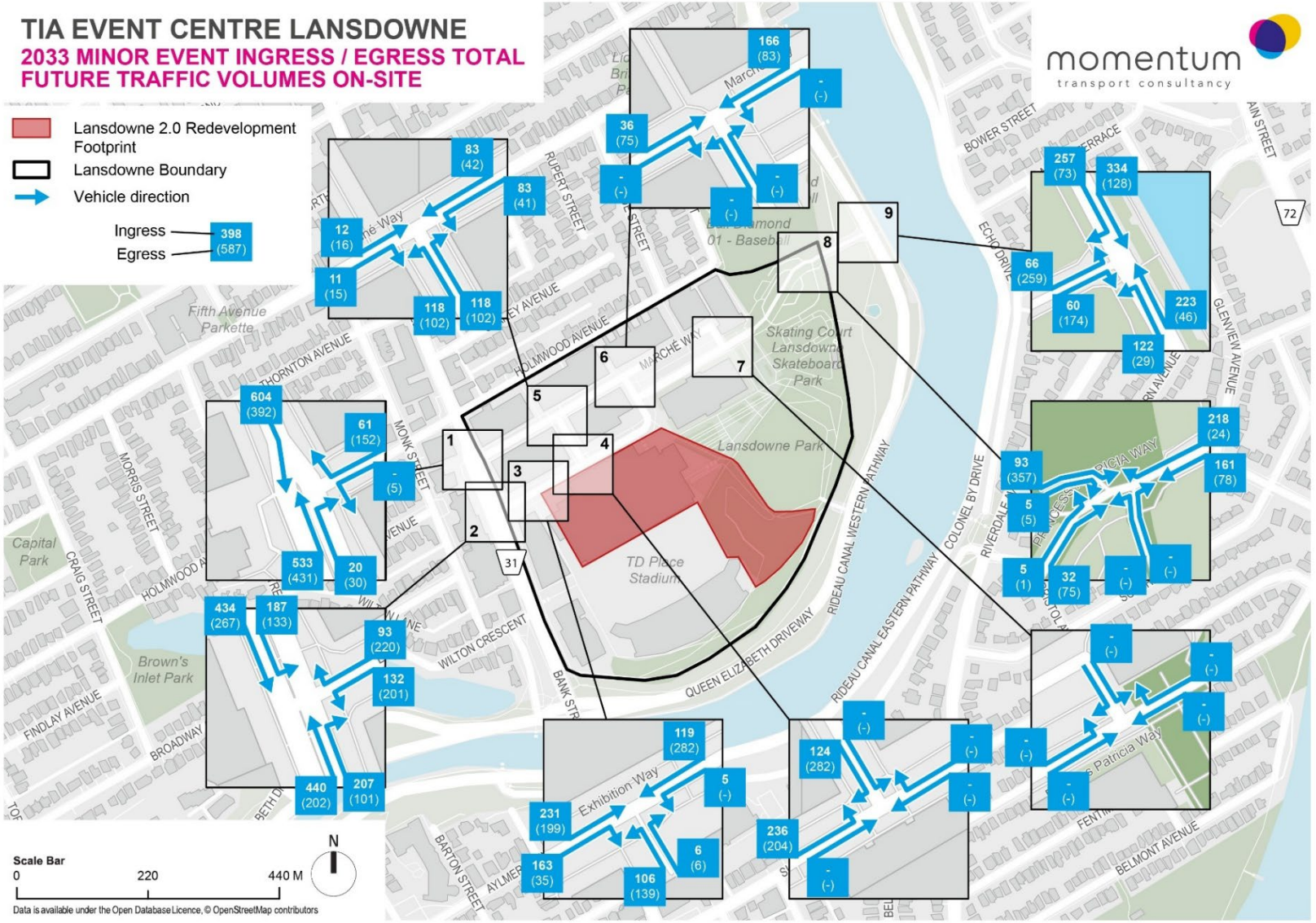
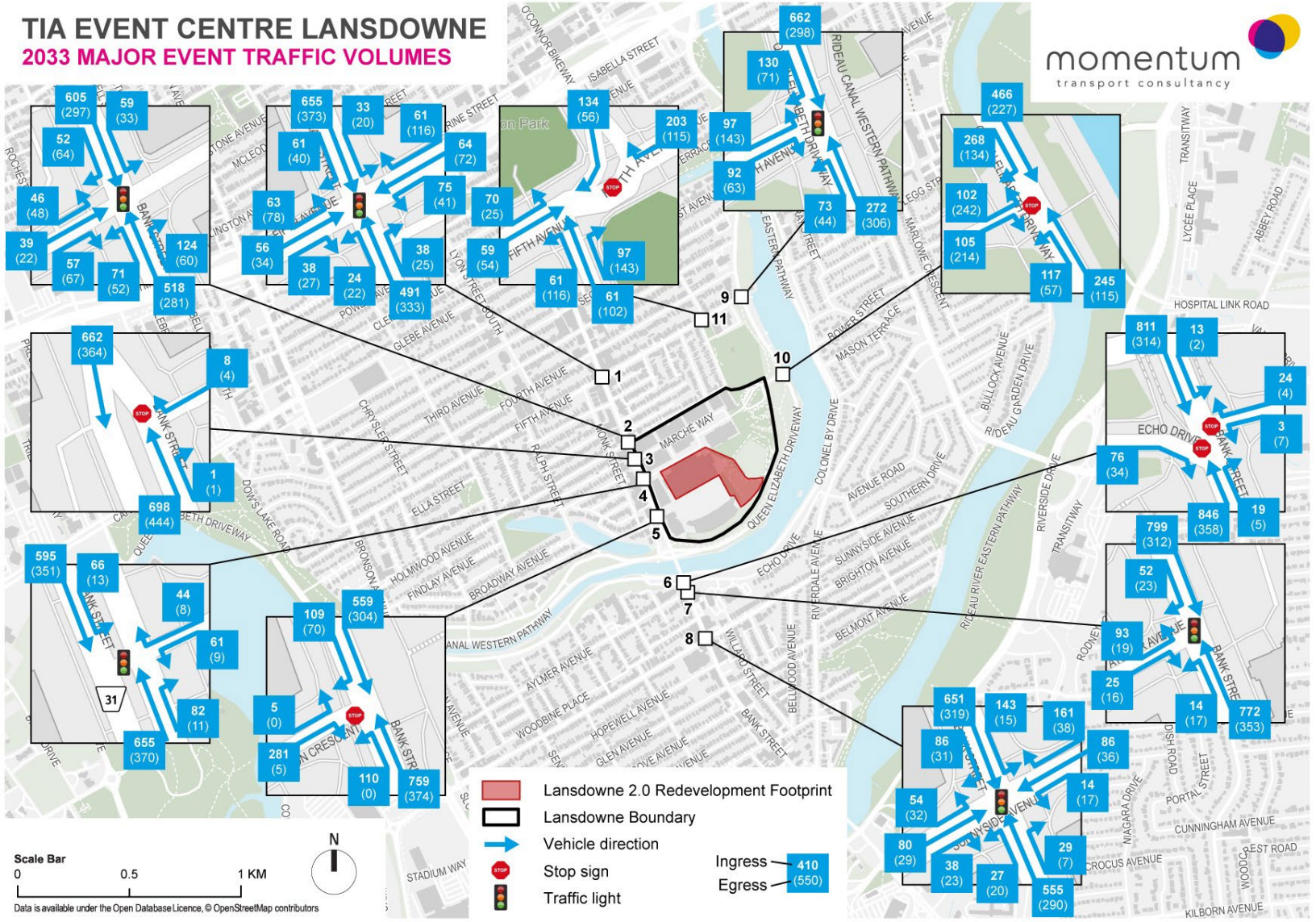


Figure 3.31: 2033 Total Future Traffic Volumes Major Event (Ingress and Egress)



4. STRATEGY REPORT

4.1 Development Design

4.1.1 DESIGN FOR SUSTAINABLE MODES

Bicycle facilities: Lansdowne is designed to accommodate cycling connectivity throughout the site. Many of the internal pathways, particularly Exhibition Way, Marche Way, and Princess Patricia Way, are designed as Pedestrian Priority Zones. Cycling access points to Lansdowne are provided at Bank Street at Exhibition Way and Marche Way, as well as three cycling connections to internal pathways on Holmwood Avenue. On the east and south side of Lansdowne, connections to the multi-use pathways on Queen Elizabeth Driveway are provided at numerous locations. Improved cycling crossing facilities are currently contemplated at the Queen Elizabeth Driveway and Princess Patricia Way site access intersection to Lansdowne. 152 bicycle parking spaces are to be provided as part of the proposed site plan application for the Event Centre (Phase 1). In addition, for major events held on site at the stadium with attendance levels of 15,000 or more, free valet bike parking storage is provided near TD Place Gate 4. A partnership with CAA is currently being explored for Bike Valet during major events.

Pedestrian facilities: Lansdowne is designed to accommodate pedestrian movements throughout the site. Many of the internal pathways, particularly Exhibition Way, Marche Way, and Princess Patricia Way, are designed as Pedestrian Priority Zones. In recent years, the section of Princess Patricia Way between Exhibition Way and Marche Way (along the north side of the Aberdeen Pavilion) has been fully closed to vehicular traffic to better accommodate pedestrian flow. Pedestrian access points are currently to Lansdowne with pedestrian connections to Bank Street at Exhibition Way and Marche Way, as well as three pedestrian connections to sidewalks on Holmwood Avenue. On the east and south side of Lansdowne, pedestrian connections to the multi-use pathways on Queen Elizabeth Driveway are provided at numerous locations. Improved sidewalk and crossing facilities are currently contemplated at the Queen Elizabeth Driveway and Princess Patricia Way site access intersection to Lansdowne.

Parking areas: Lansdowne currently features an underground parking garage with a total of 1,380 spaces for public and residential use. As part of the Lansdowne 2.0 project, the underground parking garage is proposed to be expanded to include an additional 386 underground parking spaces dedicated to support the residential units and additional retail space, for a total of 1,766 parking spaces. Similar to today, access to the underground parking garage will be provided through two garage ramp entrances: one on Exhibition Way east of Bank Street, the other on Princess Patricia Way west of Queen Elizabeth Driveway. A residents-only private access to the underground garage is also available on Holmwood Avenue.

Transit facilities: Transit stops for OC Transpo routes 6 and 7 are currently serviced by stops located at the intersection of Bank Street and Exhibition Way. In addition, these bus stops accommodate 450-series enhanced transit service during Major Events held at Lansdowne. There are sidewalks along both sides of Bank Street as well as adequate pedestrian crosswalks to access the transit stops. The new multi-purpose event centre will be located within the 400-meter transit catchment area.

4.1.2 CIRCULATION AND ACCESS

Site access and circulation at Lansdowne is expected to continue to be provided at the existing site access intersections on Bank Street and Queen Elizabeth Driveway for general public access, as well as Holmwood Avenue at the restricted, residents-only underground garage access.

Site circulation is expected to be managed with similar traffic management measures deployed at Lansdowne today. This includes providing general public traffic access and circulation at designated roadways including Exhibition Way, Marche Way, and Princess Patricia Way.

Paved pathways located at the south of the site in and around the Great Lawn are expected to operate as a restricted / limit-use pathway for emergency vehicle access, deliveries, and designated shuttle services including accessible ParaTranspo service.

Traffic management measures during major events (i.e. stadium events with attendance levels of 15,000 or more) will continue to restrict vehicular access through Lansdowne with temporary vehicle restrictions placed at Bank Street access intersections. Vehicular access will continue to be restricted to the Queen Elizabeth Driveway intersection to provide access to the underground parking garage ramp at Princess Patricia Way, as well as for the shuttle loop for pick-up and drop-off activity. Vehicular circulation through the site will continue to be restricted during major events.

For minor events, particularly at the new event centre, traffic management measures will be required to restrict vehicular access to the new event centre main entrance area. This will require the deployment of traffic control devices at the intersection of Exhibition Way and the internal service road in order to divert inbound traffic from Bank Street to Marche Way. Traffic measures include deployment of barricades (bike racks) and staff to re-direct traffic to Marche Way. This has been deployed in the past by OSEG during events.

The internal route leading from Exhibition Way to the new Event Centre main entrance is recommended to be designed as flexible pedestrian space and only allow vehicular access for specific activities (cargo loading, emergency access, and accessible pickup/drop-off). In line with best practices, it is recommended for TWSI crossings to be implemented near entrances.

Permitted vehicles, including accessible ParaTranspo buses, will be permitted to travel on Exhibition Way to the designated accessible passenger pick-up and drop-off area.

Proposed site access and internal circulation schemes for regular operations, minor events, and major events after the completion of the Lansdowne 2.0 redevelopment program are illustrated in Figure 4.1 through Figure 4.3.

Vehicle swept path analyses were completed to verify that design vehicles are able to access and circulate within the limited access pathways for vehicles. This includes the designated accessible passenger pick-up and drop-off for the new event centre for ParaTranspo vehicles, as well as large 53’ truck and trailers accessing the Great Lawn from Exhibition Way to support load-in and load-out activities for programming and events hosted outdoors in the public realm.

Appendix D includes excerpts of vehicle turning templates illustrating vehicle access and circulation.

4.1.3 NEW STREET NETWORKS

Not applicable; exempted during screening and scoping.

Figure 4.1: Lansdowne 2.0 Internal Site Circulation Plan (Regular Operations)

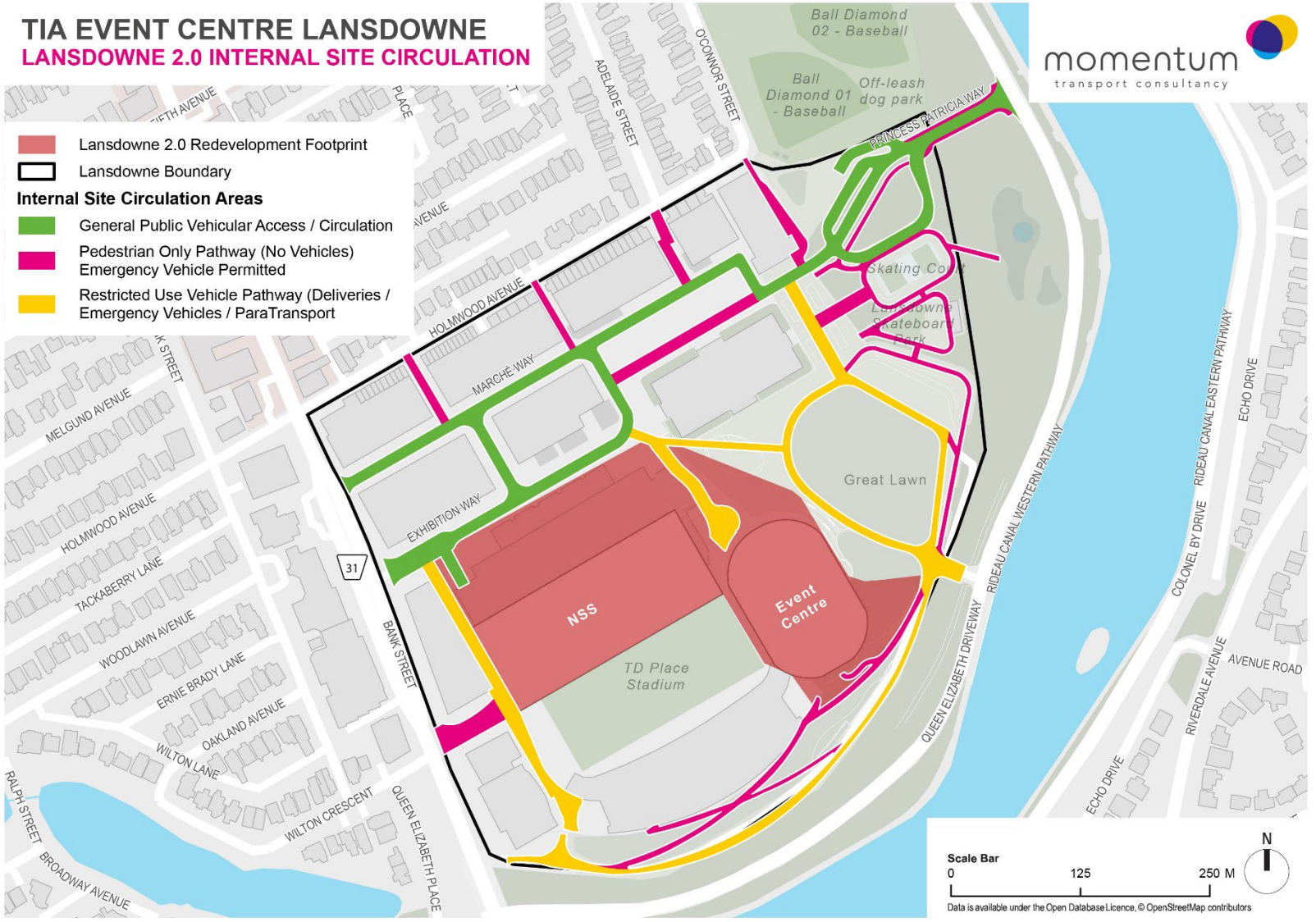


Figure 4.2: Lansdowne 2.0 Internal Site Circulation Plan (Minor Events)

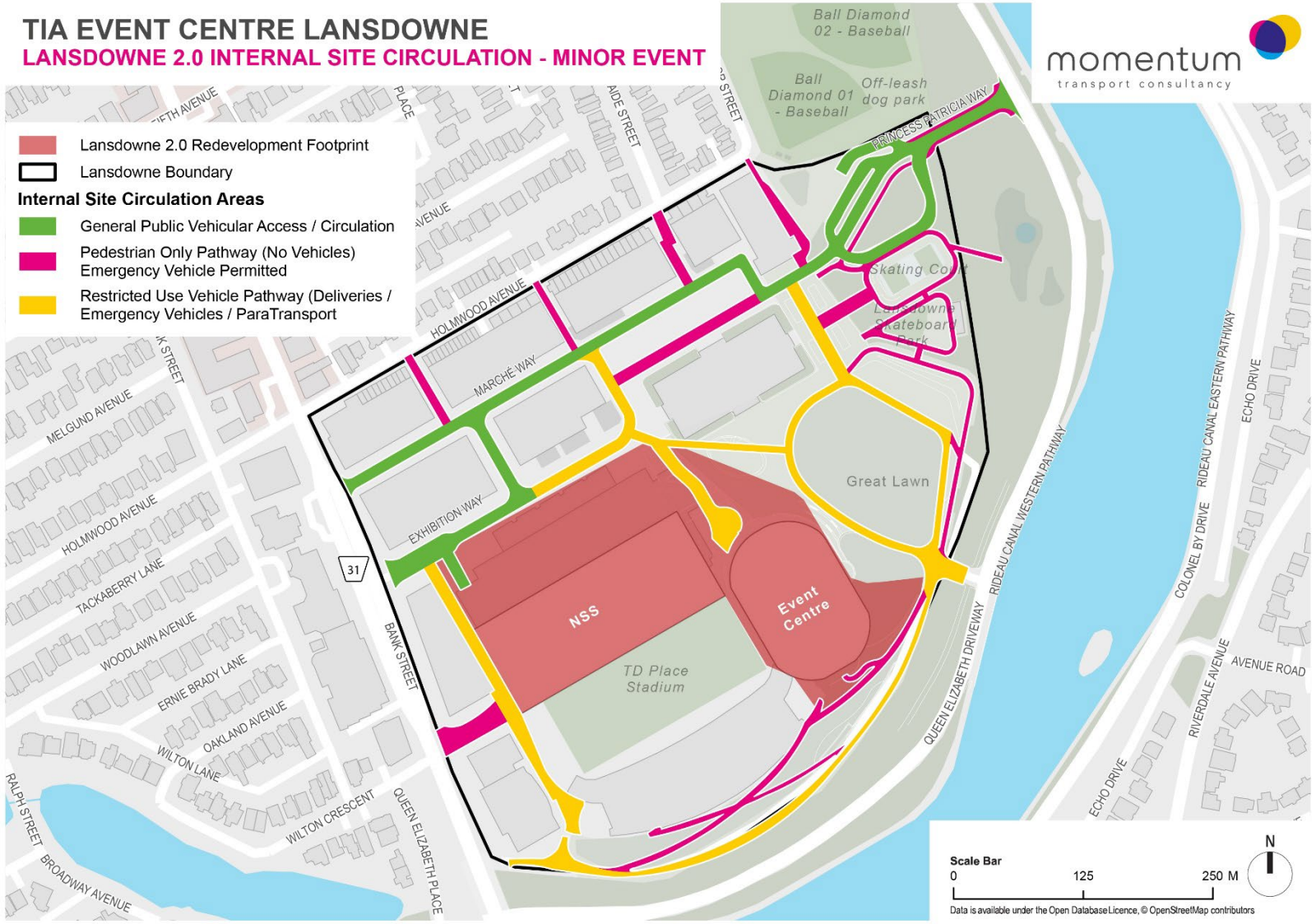


Figure 4.3: Lansdowne 2.0 Internal Site Circulation Plan (Major Events)

4.2 Parking

4.2.1 PARKING SUPPLY

Auto Parking - Lansdowne currently features an underground parking garage with a total of 1,380 spaces for public and residential use. No additional parking spaces are proposed as part of the proposed site plan application for the new event centre (Phase 1).

As part of the overall Lansdowne 2.0 project, the underground parking garage is proposed to be expanded to include an additional 386 underground parking spaces dedicated to support the additional retail space and residential units, for a total of 1,766 parking spaces. These additional spaces are contemplated as part of subsequent phases of development.

Bicycle Parking - Lansdowne benefits from approximately 285 surface level bicycle parking spaces that support current day to day activity as well as special events at Lansdowne. A total of 47 bicycle racks are proposed as part of the public realm improvements for the Event Centre (Phase 1).

No internal cycle parking spaces are provided as part of Phase 1 – Event Centre of the development. Internal cycle parking is provided as part of the wider Lansdowne 2.0 development in the underground parking garage and are accessible by employees and residents at Lansdowne.

As part of the overall Lansdowne 2.0 project, additional bicycle parking spaces are required to subsequent phases of development at Lansdowne, namely Phase 3 for the new retail podium and two residential towers. Based on the City of Ottawa Zoning By-Laws, the minimum bicycle parking requirement for the subject property is 0.5 spaces per dwelling unit. To offset the reduced parking requirements and to encourage alternative modes of transportation, the residential bicycle parking rate is proposed to be increased to 1 space per dwelling unit, for a total of 770 bicycle parking spaces. All other bicycle parking requirements for non-residential uses are not proposed to be changed and will comply with the applicable requirements of Section 111 of the Zoning By-law.

The total number and allocation of bicycle parking spaces will be finalized in subsequent phases of design development for Lansdowne 2.0.

4.3 Boundary Street Design

4.3.1 DESIGN CONCEPT

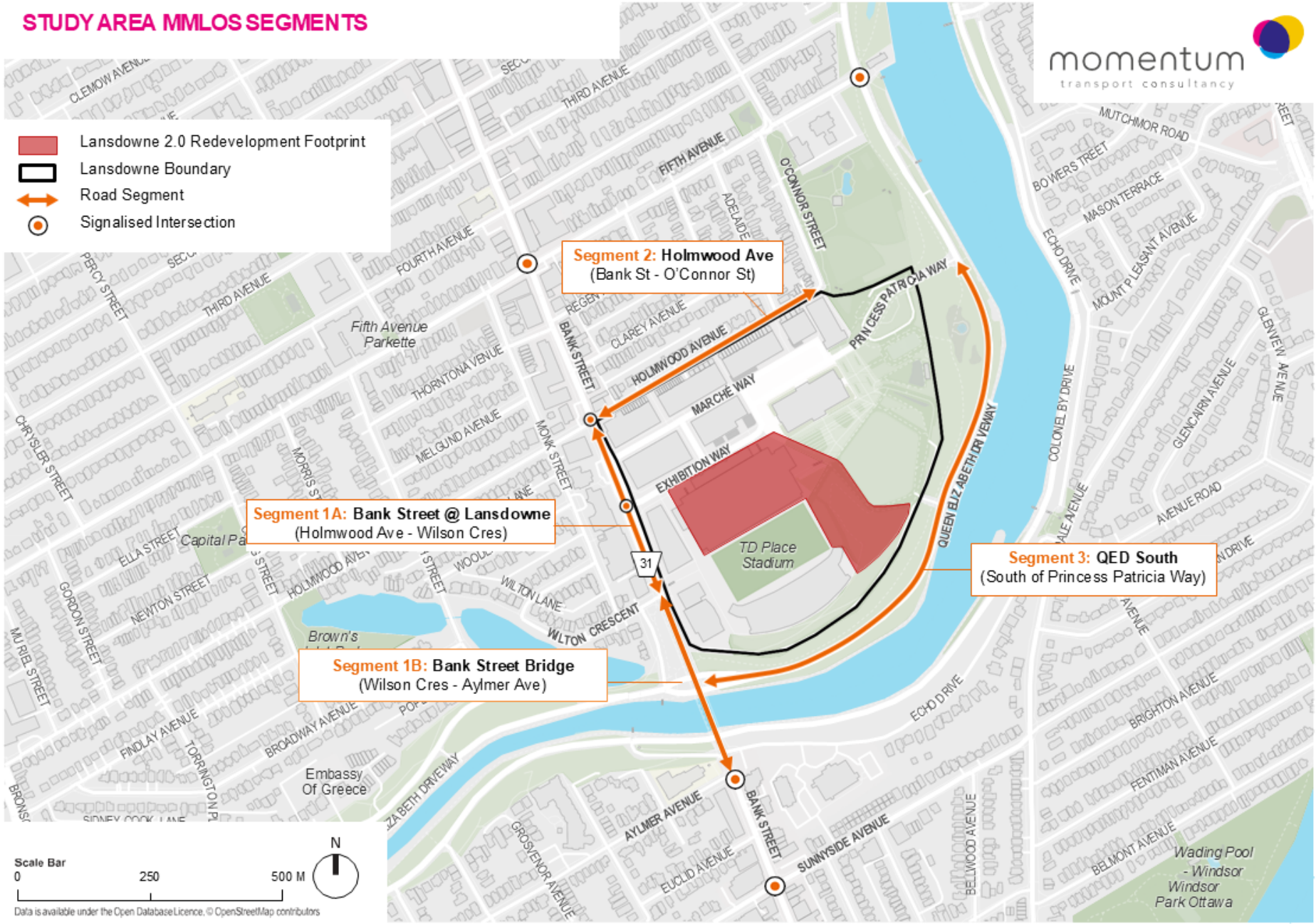
Lansdowne is located in a unique geographic location within the City of Ottawa as it interfaces with Bank Street - a traditional Mainstreet to the west, Holmwood Avenue – a local residential street to the north, and the Queen Elizabeth Driveway – a scenic parkway with regional multi-use pathways.

A Multimodal Level of Service (MMLOS) analysis was conducted for key roadway segments and intersections directly interfacing with Lansdowne. Interfaces are defined as street segments that form frontages or boundaries to the Site and include:

- **Segment 1**– Bank Street at Lansdowne (Holmwood Avenue to Wilton Crescent)
- **Segment 2** – Holmwood Avenue (Bank Street to O'Connor Street)
- **Segment 3** – QED South (South of Princess Patricia Way

Figure 4.4 illustrates location of the MMLOS segments assessed.

STUDY AREA MMLOS SEGMENTS



Multi-Modal Level of Service (MMLOS) Targets

As per the City of Ottawa Official Plan (Schedule A), Lansdowne falls within the Inner Urban Transect Policy Area, with Bank Street identified as a Traditional Main Street Corridor. The following designations were adopted from the City of Ottawa MMLOS Guidelines:

Bank Street is classified as an Arterial road with a Traditional Main Street designation. The following MMLOS targets were assumed for Bank Street:

Pedestrian Level of Service (PLOS) target of **PLOS B** is defined for the corridor and signalized intersections. Due to the proximity of schools within Lansdowne, a **PLOS A** target is identified for the intersections of Bank Street / Holmwood Avenue, and Bank Street / Exhibition Way, as per the City of Ottawa MMLOS Guidelines.

Bicycle Level of Service (BLOS) target of **BLOS C** based on a Local Route designation.

Transit Level of Service (TLOS) target of **TLOS D**.

Truck Level of Service (TkLOS) target of **TkLOS D**.

Auto Level of Service (LOS) of **LOS D**.

Holmwood Avenue is classified as a Local road with a General Urban Area designation. The following MMLOS targets were assumed for Holmwood Avenue:

Pedestrian Level of Service (PLOS) target of **PLOS C**.

Bicycle Level of Service (BLOS) target of **BLOS B** based on a Local Route designation.

No Transit Level of Service (TLOS) target is defined.

No Truck Level of Service (TkLOS) target is defined.

Auto Level of Service (LOS) of **LOS D**.

Queen Elizabeth Driveway is classified as an Arterial with a General Urban Area designation. The following MMLOS targets were assumed for Queen Elizabeth Driveway:

Pedestrian Level of Service (PLOS) target of **PLOS C**.

Bicycle Level of Service (BLOS) target of **BLOS B** based on a Local Route designation.

No Transit Level of Service (TLOS) target is defined.

No Truck Level of Service (TkLOS) was adopted as QED is not a truck route.
Auto Level of Service (LOS) of **LOS D**.

Table 4.1 through Table 4.4 below summarizes MMLOS targets and performance for roadway segments and intersections under Existing and 2033 Total Future conditions. **Appendix E** contains the detailed MMLOS analysis.

Table 4.1: Existing Conditions MMLOS Targets and Results (Segments)

Segment		PLOS		BLOS		TLOS		TkLOS	
		Target	Actual	Target	Actual	Target	Actual	Target	Actual
1	Bank Street @ Lansdowne (Holmwoode Ave - Aylmer Ave)	B	C	C	E	D	F	D	C
2	Holmwood Ave (Bank St - O'Connor St)	C	B	B	B	--	--	--	--
3	QED (South of Princes Patricia Way)	C	B	B	A	--	--	--	--

Table 4.2: 2033 Future Conditions MMLOS Targets and Results (Segments)

Segment		PLOS		BLOS		TLOS		TkLOS	
		Target	Actual	Target	Actual	Target	Actual	Target	Actual
1	Bank Street @ Lansdowne (Holmwoode Ave - Aylmer Ave)	B	C	C	E	D	F	D	C
2	Holmwood Ave (Bank St - O'Connor St)	C	B	B	B	--	--	--	--
3	QED (South of Princes Patricia Way)	C	B	B	A	--	--	--	--

Table 4.3: Existing Conditions MMLOS Targets and Results (Signalized Intersections)

Intersection	PLOS		BLOS		TLOS		TkLOS		LOS	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
Bank St. / Fifth Ave	B	D	C	D	D	E	D	F	D	B
Bank St. / Holmwood Ave	A	D	B	D	D	E	D	F	E	B
Bank St. / Exhibition Way	A	D	B	E	D	D	D	B	E	B
Bank St. / Aylmer Ave	B	D	C	D	D	E	D	F	D	A
Bank St. / Sunnyside Ave	B	D	C	D	D	F	D	F	D	E
QED / Fifth Ave	C	C	B	B	--	--	--	--	D	C

Table 4.4: 2033 Future Conditions MMLOS Targets and Results (Signalized Intersections)

Intersection	PLOS		BLOS		TLOS		TkLOS		LOS	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
Bank St. / Fifth Ave	B	D	C	D	D	E	D	F	D	C
Bank St. / Holmwood Ave	A	D	B	D	D	E	D	F	E	B
Bank St. / Exhibition Way	A	D	B	E	D	D	D	B	E	B
Bank St. / Aylmer Ave	B	D	C	D	D	E	D	F	D	A
Bank St. / Sunnyside Ave	B	D	C	D	D	F	D	F	D	E
QED / Fifth Ave	C	C	B	B	--	--	--	--	D	C

MMLOS – Roadway Segments

Table 4.1 and Table 4.2 summarize MMLOS under Existing and 2033 Total Future conditions for roadway segments fronting Lansdowne. As summarized in the tables, no significant changes to MMLOS are expected to occur on these segments.

Potential improvements to bicycle and transit levels of services on Bank Street may occur in the future as a result of the currently ongoing *Bank Street Active Transportation and Transit Priority Feasibility Study.*

Bank Street Segment:

The **PLOS** target of **B** along Bank Street, across the frontage of Lansdowne, is currently being met on both sides due to the wide landscaped sidewalks. As a whole segment, Bank Street has a **PLOS** rating of **C**, between Holmwood Avenue and Aylmer Avenue.

The **BLOS** target of **C** along Bank Street, across the frontage of Lansdowne, is currently met in the northbound travel direction as there is a curbside bike lane. However, in the southbound travel direction there is no dedicated bicycling facility. Bank Street, between Wilton Crescent and Aylmer Avenue, has a BLOS rating of A due to the newly implemented bicycle lanes over the Bank Street Bridge. As a whole segment, Bank Street does not meet the BLOS target.

The **TLOS** target of **D** along Bank Street, across the frontage of Lansdowne, is currently not being met due to the mixed operating condition of transit along the corridor and resulting congestion related delays. To improve the TLOS along Bank Street, improved transit priority measures can be implemented to limit delays to transit along the corridor.

The **TkLOS** target of D is met.

Subject to the findings and recommendations stemming from the ongoing *Bank Street Active Transportation and Transit Priority Feasibility Study*, potential improvements to the BLOS and TLOS on Bank Street may be realized in the future as a result of transit and cycling infrastructure improvements.

Holmwood Avenue Segment:

The **BLOS** target of **B** along Holmwood Avenue is met with the provision of a bicycle lane on the northside.

The **PLOS** target of **C** on Holmwood Avenue is being met.

Queen Elizabeth Driveway Segment:

The **PLOS A** and **BLOS B** targets for the section of Queen Elizabeth Driveway fronting Lansdowne are met with the provision of wide multi-use pathways on both sides of the parkway.

MMLOS – Intersections

Table 4.3 and Table 4.4 summarize MMLOS under Existing and 2033 Total Future conditions for signalized intersections. As summarized in the tables, no significant changes to MMLOS are expected to occur on these segments.

Potential improvements to bicycle and transit levels of services on Bank Street may occur in the future as a result of the currently ongoing *Bank Street Active Transportation and Transit Priority Feasibility Study.*

Pedestrian Level of Service (PLOS)

The **PLOS** rating on Bank Street is generally not met with overall intersection **PLOS D** ratings across the corridor, this is due to the number of traffic lanes pedestrians must cross on Bank Street, signal timing delays, and the lack of leading pedestrian intervals at some intersections.

The **PLOS** target of **C** is met at the intersection of Queen Elizebth Driveway and Fifth Avenue.

Bicycle Level of Service (BLOS)

The **BLOS** rating on Bank Street is generally not met with overall intersection **BLOS D** or **E** rating for most intersections across the corridor, this is due to the lack of dedicated bicycle facilities on Bank Street and relatively high operating speeds.

The **BLOS** target of **B** is met at the intersection of Queen Elizebth Driveway and Fifth Avenue.

Transit Level of Service (TLOS)

The **TLOS** rating on Bank Street is generally not met with overall intersection **TLOS E** or **F** rating for most intersections across the corridor, this is due to the lack of transit priority measures and traffic signal delays at intersections.

There are no transit provisions on Queen Elizebth Driveway or Holmwood Avene.

Truck Level of Service (TkLOS)

The **TkLOS** rating on Bank Street is generally not met with overall intersection **TkLOS F** rating for most intersections across the corridor, this is primarily attributed to the effective curb radii at intersections, and the number of receiving lanes on minor roadway approaches intersecting Bank Street. It is worth noting that the TkLOS for through movements on Bank Street are adequate.

Heavy vehicles are not permitted on Queen Elizebth Driveway.

Auto Level of Service (LOS)

The auto **LOS** targets set for Bank Street are generally met with overall **LOS** ratings of **C** or better. The intersection of Bank Street and Sunnyside Avenue is currently operating and is projected to continue to operate with a **LOS E** during peak hour conditions.

The **LOS** target of **C** is met at the intersection of Queen Elizebth Driveway and Fifth Avenue.

4.4 Access Intersection Design

4.4.1 ACCESS LOCATION

Access to Lansdowne will continue to be facilitated at three key locations: a primary all-movements access at the intersection of Bank Street / Exhibition Way, a secondary all-movements access at Queen Elizabeth Driveway and Princess Patricia Way, and a minor right-in/right-out only access on Bank Street and Marche Way.

4.4.2 INTERSECTION CONTROL

The primary Bank Street / Exhibition Way intersection access is signalized and accommodates all-movements. The secondary Queen Elizabeth Driveway / Princess Patricia Way intersection access is Stop-Controlled on the minor approach. The minor Bank Street / Marche Way intersection is a right-in/right-out only intersection with a Stop-Control on the minor approach.

Temporary Construction Access

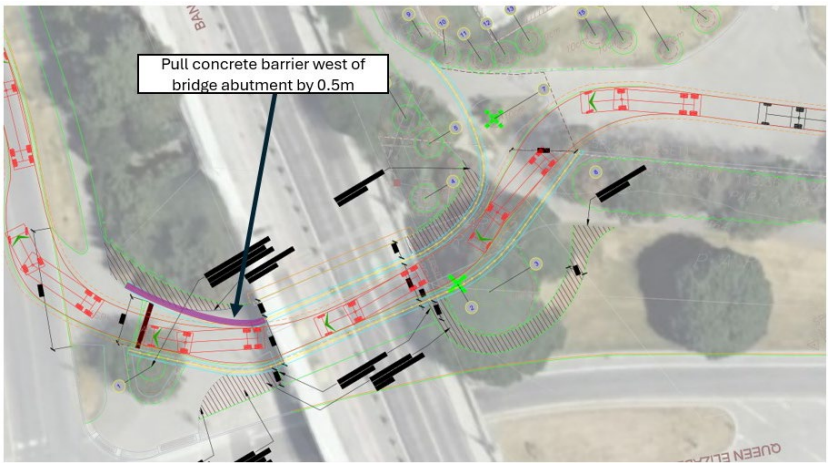
As part of the construction of the new event centre and stadium, is it estimated that between 80 to 100 truck trips per day can be expected during the peak construction activity of Lansdowne 2.0.

Out of the total daily truck trips, which consist of construction material delivers, and hauling of construction spoils, upwards of 25 heavy vehicle trips would occur within the peak hour.

To minimize the number of trucks utilizing the Bank Street and Exhibition Way entrance, a temporary haul route is proposed near the Wilton Crescent and Queen Elizabeth Place intersection to provide construction access along the south side of Lansdowne. This access route, which was previously used to support the original redevelopment construction of Lansdowne Park for 2014, is subject to a the NCC's *Federal Land Use, Design and Transaction Approval* (FLUDTA) process the construction access is within the Queen Elizabeth Way right-of-way.

The temporary construction haul route access point is illustrated in Figure 4.5.

Figure 4.5: Lansdowne 2.0 Temporary Construction Haul Route Access



The proposed temporary construction haul route would reduce the number of trucks utilizing

the Bank Street and Exhibition Way entrance, minimizing construction traffic conflicts with the general public on site.

Use of the temporary construction access will be limited to certain vehicles due to height and vehicle turning restrictions. Larger construction vehicles, such as 53' truck trailers deliveries and heavy construction equipment, would continue to access the construction site through the Bank Street and Exhibition Way intersection.

The following assumptions related to peak hour traffic volumes were assumed as part of this study and incorporated as part of the 2028 construction traffic scenarios:

- **20 trips** per hour (80% of total trips per hour) would be dump trucks, flatbed trucks, and smaller trucks that can utilize the temporary construction haul route.
- **5 trips** per hour (20% of total trips per hour) would be larger deliveries that would access the site at the Bank Street and Exhibition Way intersection.

Figure 4.6 illustrates the assumed construction traffic routes to and from the Highway 417 (The Queensway).

Inbound construction traffic to Lansdowne is assumed to travel towards Lansdowne on Highway 417, and would exit at Bank Street to travel southbound towards Lansdowne.

The majority of construction traffic would access the construction site through the temporary haul route by turning onto Wilton Crescent towards the temporary haul route access point. Larger construction vehicles would turn left onto Exhibition Way and travel through the site to access the construction footprint.

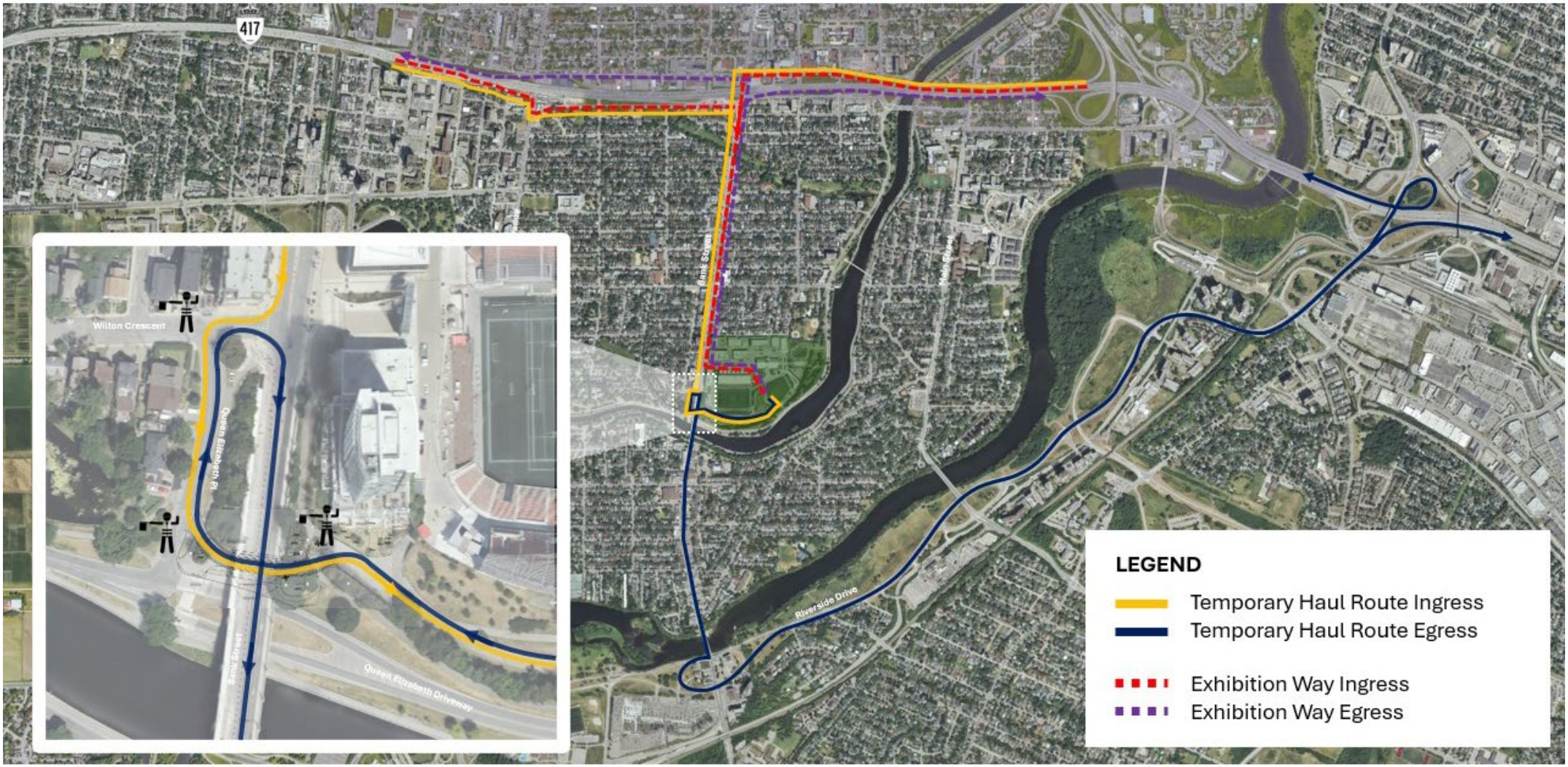
Construction traffic exiting the site is assumed to travel towards Highway 417 through two different patterns. Construction traffic exiting through the temporary haul route onto Wilton Crescent are assumed to turn right onto Bank Street to head southbound due to the existing eastbound left-turn restriction at the intersection of Bank Street and Wilton Crescent, and to mitigate for the need of traffic flaggers for all movements. Access to Highway 417 would be accommodated via Riverside Drive.

Construction traffic exiting the site at the Bank Street and Exhibition Way intersection will be directed northbound on Bank Street towards Highway 417.

Assumed construction haul and access routes for Lansdowne 2.0 redevelopment are illustrated in Figure 4.6.

Appendix F includes detailed vehicle swept path analysis of the temporary haul route.

Figure 4.6: Lansdowne 2.0 Construction Haul Routes



4.5 Transportation Demand Management

4.5.1 CONTEXT FOR TDM

Development Location and involved Parties

Lansdowne 2.0 is located in a Design Priority Area (DPA), as specified by the Official Plan. Lansdowne is owned by the City of Ottawa, and is co-manged and operated with the Ottawa Sports and Entertainment Group (OSEG) through a public-private partnership. The stadium and future event centre will continue to be leased by the City to OSEG to host tenant sporting teams and special events at Lansdowne.

The initial Lansdowne Redevelopment project featured a comprehensive Transportation Demand Management (TDM) strategy to address day-to-day and special event transportation requirements. The Transportation Demand Management Plan (October 2011) for Lansdowne outlined strategies for encouraging residents, employees, and visitors to Lansdowne to utilize transit and active transportation modes to reduce reliance on single occupant vehicles (SOV) and automobile use. The plan included recommendations for both day-to-day operations (residents, employees and retail patrons), as well as for special events with attendance levels of 10,000 patrons (arena events), 25,000 patrons (stadium events), and 40,000 plus patrons (unique, expanded stadium events).

Construction of the new Event Centre will allow for the concurrent use of the Stadium and Event Centre. While concurrent events will not be held, the ability to use the Event Centre during Major Events (i.e. extended seating / viewing areas for a future Grey Cup) could occur. The TDM Strategy for Lansdowne has been revised to plan for this event size (~29,000 attendees) with additional Park & Shuttle enhancements. This new category would site between a Major Event (25,000 attendees) and a once-in-a-lifetime Mega Event (40,000 attendees) that would include the Grey Cup, for example.

A hallmark of the TDM plan for Lansdowne is the provision of free transit service to all ticketholders attending ticketed events at Lansdowne. This innovative TDM strategy, which is the first of its kind in North America for a large mixed-use entertainment district, provides free transit to all ticketed events starting 2 hours prior to the start of events and 2 hours after the end of events held at Lansdowne. The cost of any enhanced transit service provided for events with attendance levels of 5,000 or more are bourn by OSEG.

The comprehensive TDM program implemented in 2014 as part of the original revitalization of Lansdowne Park will continue to play a critical role in supporting the transportation program for Lansdowne 2.0. This includes the provision of free transit for all ticketed events at Lansdowne.

The current transit service enhancements ad TDM measures will sufficiently serve the 5,500 seat Event Centre as it replaces the programming provided at the existing 9,800 seat TD Place Arena, and therefore it is not expected to generate additional transportation demands to Lansdowne.

4.5.2 NEED AND OPPORTUNITY

The Importance of Alternative Modes

Lansdowne's unique urban setting and its role as a venue for large-scale events make sustainable transportation options critical. With limited space for private vehicles, alternative modes such as transit, cycling, walking, and ridesharing ensure seamless access while minimizing congestion and enhancing the overall event experience. These modes also align with the community's goals for reducing environmental impact and fostering vibrant, accessible neighborhoods.

Periodic Modal Share Analysis

Modal share surveys for major and minor events are conducted by OSEG on an annual basis to gauge the effectiveness of the TDM program. This annual assessment helps to track progress and identify any adjustments that might be required to continue to meet TDM targets.

Based on 2023 modal share data, the TDM modal shares for events held at Lansdowne continue to be within set targets with a high adoption of transit, shuttle, and active modes as the primary travel options to travel to Lansdowne for events.

For major events (attendance levels of 10,000 or more), the transit and shuttle modal share continues to show improvement and signs of recovery since the COVID-19 pandemic. Transit and shuttle modal shares increased from **42.2%** in 2022 to **47.1%** in 2023. It is anticipated modal shares will continue to improve over time as transit ridership levels continue to recover. Modal shares for on-site parking (**3.8%**), cycling (**1.5%**), and walking (**8.2%**) continue to fall within modal share targets for major events.

For minor events (attendance levels that are less than 10,000), transit modal shares continue to meet and exceed set targets for transit and actives modes. For Ottawa 67's games, the transit modal shares in 2023 was **24.5%**, exceeding the 10-20% target. This success is attributed to excellent communication of travel options to ticket holders, and the provision of shuttle service from Carleton University for Ottawa 67's games held at Lansdowne.

Modal shares for other minor events, such as concerts and shows, continue to meet TDM targets for transit (**13.6%**) and active modes (**9.3%**).

Modal shares for Ottawa BlackJacks and Ottawa Athletico matches for 2023 were also met. While the transit mode share average was **8.2%**, slightly below the 10% target, the walking and cycling mode share was **17.2%**, far exceeding the 5-10% target for active modes. It is worth noting that the auto mode share for Ottawa BlackJacks and Ottawa Athletico matches was also within the set targets with **66.2%** in 2023.

Modal share summaries for 2023 events held at Lansdowne are included in **Appendix G**.

TDM Success and Future Potential

The current TDM program for events at Lansdowne has already achieved significant progress, with tenant team games surpassing active mode targets. By continuing to invest in targeted measures—such as enhanced wayfinding, coordinated transit services, and cycling infrastructure—Lansdowne can strengthen its role as a leader in sustainable event hosting while providing a high-quality experience for all visitors.

4.5.3 TDM PROGRAM

An updated Transportation Demand Management Strategy for Lansdowne 2.0 was developed in support of the proposed event centre and new north stadium stands.

Also, the City of Ottawa's TDM-Supportive Design and Infrastructure elements checklist and TDM Measures checklist were consulted to identify and incorporate TDM supportive measures.

Both the Transportation Demand Management Measures Overview and TDM checklists are included in **Appendix G**.

4.6 Neighbourhood Traffic Calming

The redevelopment of Lansdowne in 2014 prioritized the movement of people through the site through landscape design treatments. Many of the internal pathways, particularly Exhibition Way, Marche Way, and Princess Patricia Way, are designed as Pedestrian Priority Zones.

In recent years, the section of Princess Patricia Way between Exhibition Way and Marche Way (along the north side of the Aberdeen Pavilion) has been fully closed to vehicular traffic to better accommodate pedestrian flow and minimize cut-through vehicular traffic.

Vehicle circulation is currently limited to certain routes within the site and traffic management measures are deployed to limit and restrict the amount of vehicular traffic traveling through the site, particularly when events are held at Lansdowne.

4.7 Transit

4.7.1 ROUTE CAPACITY

Service on Bank Street currently operates with headways of 12-minutes or less on both Routes 6 and 7.

As part of the TDM program for special events at Lansdowne. Ticketed events with attendance levels of 5,000 or less are accommodated with regularly scheduled bus service on Bank Street with no service enhancements.

For ticketed events with attendance levels between 5,000 and 10,000 attendees, service enhancements on bus Route 6 and 7 are provided to support additional transit ridership demands for events. Enhanced service can range from 2 additional bus trips to 8 extra trips depending on depending on attendance levels. The cost of additional trips added to support events is borne by OSEG.

It is anticipated that the current transit service enhancements provided for minor events (attendance levels of 10,000 or less) for Phase 1 (multi-purpose event centre) will be supported adequately through the current TDM program and transit service enhancements.

For the full-build out of Lansdowne 2.0 (i.e. Phase 3), transit modal shares of 25%, 14%, and 29% were assumed for the proposed multi-family residential, shopping center, and general office land-uses.

This is expected to result in a peak hour net increase in transit trips of 152 trips during the Weekday AM peak hour, 119 transit trips in the Weekday PM Peak hour, 146 transit trips in the Weekend Saturday peak hour, and 167 transit trips in the Weekend Sunday peak hour

Currently, OC Transpo Route 6 and Route 7 provide service along Bank Street with connections to key destinations in Ottawa. Service is provided on weekdays and weekends with an average headway of 12 minutes for each route in both directions. This translates to a total of 20 two-way transit trips per hour on Bank Street at Lansdowne (5 trips per bus route, per direction).

The OC Transpo fleet is comprised of various bus types including 40' standard buses, higher capacity 60' articulated buses, and double-decker buses.

Depending on the fleet vehicle used, the passenger capacity across the fleet varies between 57 to 110 passengers per bus, depending on the bus type.

On average, the following capacities are provided:

Standard 40' buses: the total carrying capacity per bus ranges between 57 to 85 passengers (standing and seated). An assumed carrying capacity of 70 passengers is assumed for Standard 40' buses.

Articulated 60' buses: the total carrying capacity per bus is 110 passengers (standing and seated).

Double Decker buses: the total carrying capacity per bus ranges between 96 to 105 passengers (standing and seated). An assumed carrying capacity of 100 passengers per bus is assumed for Double Decker buses.

Based on the current 20 two-way transit trips along Bank Street, current transit passenger carrying capacity ranges between 1,400 passengers / hr to 2200 passengers per hour, depending on the fleet mix used.

For planning purposes, an average two-way transit carrying capacity of 1,870 passengers per hour is assumed.

OC Transpo currently utilizes all bus types on Routes 6 and 7 along Bank Street. OC Transpo plans vehicle fleet mix for each trip booking to match observed and projected ridership. Based on information provided by OC Transpo, the following passenger demands are to be assumed for current ridership by bus type:

Standard 40' Buses:

• 40 passengers per vehicle, averaged over an hour during off-peaks.

• 45 passengers per vehicle, averaged over an hour during peak periods.

Articulated 60' Buses:

• 60 passengers per vehicle, averaged over an hour during off-peaks.

• 70 passengers per vehicle, averaged over an hour during peak periods.

Double Decker Buses:

• 85 passengers per vehicle, averaged over an hour during off-peaks.

• 90 passengers per vehicle, averaged over an hour during peak periods.

Based on the transit ridership, current two-way transit demands along Bank Street range between 900 passengers per hour to 1,800 passengers per hour depending on the fleet mix used.

For planning purposes, an average two-way transit demand of 1,400 passengers per hour is assumed for current service along Bank Street on Routes 6 and 7.

It is anticipated that the current two-way transit demands generated by Lansdowne 2.0, which ranges between 119 to 167 passengers per hour, can be accommodated within the current scheduled services on Bank Street.

The provision for transit service requirements for the full-build out of Lansdowne 2.0 should be confirmed as part of subsequent studies in support of Phase 2 and Phase 3 of development.

4.7.2 TRANSIT PRIORITY

Opportunities to improve transit service along Bank Street for Routes 6 and 7 will be evaluated through the City of Ottawa's Active and Transit Operations study for Bank Street. Potential improvements, which may include transit signal priority measures and enhanced bus shelters, can improve transit service reliability and passenger comfort.

The provision for transit service requirements for the full-build out of Lansdowne 2.0 should be confirmed as part of subsequent studies in support of Phase 3 of development. The impact of the Phase 3 development-generated transit demands will be assessed and the possibility of additional transit priority measures to offset transit delays will be considered.

4.8 Network Concept

Section exempted.

4.9 Intersection Design

4.9.1 INTERSECTION CONTROL

The existing intersection control for Lansdowne will be maintained as part of the Lansdowne 2.0 redevelopment.

4.9.2 INTERSECTION DESIGN

An assessment of the study area intersections was undertaken to determine the operational characteristics under the various horizons identified in the Screening and Scoping report.

Intersection operational analysis was performed using the Synchro 12 software package and the MMLOS analysis was completed for all modes and compared against the City of Ottawa's MMLOS targets.

The LOS scores for signalized intersections are based on V/C ratios as required by the City of Ottawa's 2015 MMLOS Guidelines.

An update is forthcoming to the City's MMLOS Guidelines, in which reference is made to the Ontario Traffic Council (OTC) MMLOS Guidelines methodology. Based on the OTC's MMLOS Guidelines (Table 6.3), LOS for vehicular traffic at unsignalized intersections is delay based in accordance with the Highway Capacity Manual Version 7.

Intersection LOS summaries are outlined below for all study horizon periods.

Detailed Synchro level of service analysis results can be found in **Appendix E**.

Existing Conditions

Intersection operational analysis under Existing Conditions is summarized in this section.

Existing Weekday AM and PM Peak

Table 4.5 summarize intersection performance under Existing Weekday AM and PM peak hour conditions. As shown in the table below, all study area intersections are currently operating with overall acceptable levels of service under the Weekday AM and PM peak hour conditions.

The intersection of Bank Street and Sunnyside Avenue is currently operating with specific movements at or close to theoretical capacity in the southbound approach (AM Peak) and westbound approach (PM Peak).

The eastbound approach at intersection of Bank Street and Wilton Crescent is currently operating with a LOS F during the PM peak hour. The delays are associated with limited gaps in traffic in the southbound direction associated with the recently installed 3-lane cross-section of Bank Street.

No mitigation measures are recommended to improve intersection operations.

Table 4.5: Existing Weekday AM and PM Peak LOS Summary

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				AM	PM	AM	PM	AM	PM	AM	PM
Bank St & Fifth Ave	Signalized	EB	L / Th / R	A	B	0.36	0.65	21.9	35.1	27.2	31.7
		WB	L	A	A	0.18	0.39	22.9	33.1	14	17.3
			Th / R	A	A	0.21	0.29	15.9	17.7	16	14.4
		NB	L / Th / R	A	A	0.38	0.27	3.8	9.7	8.2	43.6
		SB	L / Th / R	A	A	0.32	0.36	8.5	6.1	25.6	34
		Overall Intersection		**A**	**B**	**0.38**	**0.65**	**8.6**	**12.1**	**--**	**--**
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	A	A	0.47	0.53	37.6	38.3	22.6	26.7
		NB	L / Th / R	A	A	0.29	0.30	2.6	1.9	10.8	9
		SB	L / Th / R	A	A	0.21	0.31	3.1	4.7	13.2	21.1
		Overall Intersection		**A**	**A**	**0.47**	**0.53**	**5.4**	**6.1**	**--**	**--**
Bank St & Exhibition Way	Signalized	WB	L	A	A	0.29	0.54	33.0	35.1	17.2	30.8
			Right	A	A	0.20	0.29	13.3	10.5	7.5	9.4
		NB	L / Th / R	A	A	0.41	0.31	10.1	5.2	40	27.6
		SB	L	A	A	0.17	0.28	8.5	4.8	11.6	6.5
			Th	A	A	0.16	0.23	6.7	3.1	22.7	9.6
		Overall Intersection		**A**	**A**	**0.41**	**0.54**	**10.1**	**7.3**	**--**	**--**
Bank St & Wilton Cr	Minor Stop	EB	R	C	D	0.49	0.82	22.0	53.2	15.6	40.8
		NB	L	B	B	0.20	0.36	10.7	13.6	5.7	13.7
			Th	A	A	--	--	1.8	3.3	5.7	13.7
		Overall Intersection		**A**	**B**	**0.49**	**0.82**	**5.1**	**10.2**	**--**	**--**
Bank St & Echo Dr	Minor Stop	EB	R	B	B	0.06	0.07	12.5	16.1	1.2	1.2
		Overall Intersection		**A**	**A**	**0.06**	**0.07**	**0.3**	**0.2**	**--**	**--**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				AM	PM	AM	PM	AM	PM	AM	PM
Bank St & Aylmer Ave	Signalized	EB	L / R	A	A	0.35	0.34	29.5	31.1	19.9	22.8
		NB	L / Th	A	A	0.34	0.38	3.8	4.9	16.8	19.6
		SB	Th / R	A	A	0.27	0.45	7.2	7.6	28.1	43.7
		Overall Intersection		**A**	**A**	**0.35**	**0.45**	**6.5**	**7.5**	**--**	**--**
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	B	B	0.68	0.65	26.8	42.2	32.6	53.6
		WB	L / Th / R	D	E	0.87	0.93	22.5	53.1	67.9	98.3
		NB	L / Th / R	D	A	0.86	0.43	16.4	9.2	80.8	28
		SB	L / Th / R	B	E	0.67	0.91	19.2	20.2	30.7	130.2
		Overall Intersection		**D**	**E**	**0.87**	**0.93**	**1.6**	**2.6**	**--**	**--**
QED & Princess Patricia Way	Minor Stop	NB	L / Th	A	A	0.06	0.05	8.2	8.9	1.2	1.2
		EB	L / R	B	B	0.10	0.32	13.1	19.5	1.8	8.4
		Overall Intersection		**A**	**A**	**0.10**	**0.32**	**1.6**	**2.6**	**--**	**--**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	A	A	0.21	0.37	17.6	36.6	12.9	22
		NB	L / Th	A	A	0.32	0.24	7.7	5.0	21.9	21.5
		SB	Th / R	A	A	0.42	0.53	8.6	7.7	30.5	66
		Overall Intersection		**A**	**A**	**0.42**	**0.53**	**9.2**	**9.2**	**--**	**--**
Bank St & Marche Way	Minor Stop	WB	L / R	C	B	0.57	0.15	21.1	12.9	21	3
		Overall Intersection		**A**	**A**	**0.57**	**0.15**	**4.6**	**0.8**	**--**	**--**
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	A	A	0.14	0.15	7.9	8.0	--	--
		WB	R	A	A	0.07	0.10	6.4	6.5	--	--
		NB	L / Th / R	A	A	0.09	0.12	7.5	7.7	--	--
		SB	R	A	A	0.10	0.09	6.6	6.5	--	--
		Overall Intersection		**A**	**A**	**0.14**	**0.15**	**7.1**	**7.2**	**--**	**--**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				AM	PM	AM	PM	AM	PM	AM	PM
Garage Access at Exhibition Way	Two-Way Stop	WB	Th/L	A	A	0.00	0.01	0.0	0.1	0	0.1
		NB	L / R	B	B	0.05	0.14	12.9	15.6	0.2	3.6
		Overall Intersection		**A**	**A**	**0.11**	**0.16**	**1.3**	**1.9**	**--**	**--**
Exhibition Way and Service Roadway	All-Way Stop	EB	L / Th	A	A	0.13	0.16	7.7	7.9	--	--
		WB	Th / R	A	A	0.08	0.18	7.4	7.9	--	--
		SB	L / R	A	A	0.01	0.01	7.2	7.4	--	--
		Overall Intersection		**A**	**A**	**0.14**	**0.18**	**7.6**	**7.9**	**--**	**--**
Marché Way and Service Roadway	All-Way Stop	EB	L / Th	A	A	0.00	0.01	6.7	6.6	--	--
		WB	L / Th	A	A	0.15	0.01	7.7	7.1	--	--
		NB	L / R	A	A	0.01	0.01	7.1	6.8	--	--
		Overall Intersection		**A**	**A**	**0.15**	**0.01**	**7.6**	**6.9**	**--**	**--**
Marché Way and Exhibition Way	All-Way Stop	EB	Th / R	A	A	0.00	0.01	6.9	7.0	--	--
		WB	L / Th	A	A	0.15	0.19	8.1	8.5	--	--
		NB	L / R	A	A	0.14	0.14	7.8	7.4	--	--
		Overall Intersection		**A**	**A**	**0.16**	**0.19**	**8.0**	**7.9**	**--**	**--**
Garage Access at Princess Patricia Way	Two-Way Stop	EB	L	A	A	0.00	0.00	0.0	0.0	0.1	0.1
			Th	A	A	0.0	0.0	1.0	0.7	0.1	0.1
		SB	L / R	A	A	0.01	0.07	9.3	9.5	0.3	1.7
		Overall Intersection		**A**	**A**	**0.09**	**0.07**	**0.7**	**2.5**	**--**	**--**

L - Left, **Th** - Through, **R** - Right

Existing Saturday Peak Hour

Table 4.6 summarize intersection performance under Existing Saturday Peak Hour conditions. As summarized below, all study area intersections are currently operating with overall acceptable levels of service.

Table 4.6: Existing Saturday Peak Hour LOS Summary

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Total Delay (s)	Queue 95th (m)
Bank St & Fifth Ave	Signalized	EB	L / Th / R	B	0.63	34.2	28.1
		WB	L	A	0.46	36.6	19.4
			Th / R	A	0.39	18.5	17
		NB	L / Th / R	A	0.27	3.7	14.5
		SB	L / Th / R	A	0.29	5.1	28.2
		Overall Intersection		**B**	**0.63**	**9.7**	**--**
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	A	0.54	38.5	26.7
		NB	L / Th / R	A	0.29	2.2	9.2
		SB	L / Th / R	A	0.30	3.6	16.1
		Overall Intersection		**A**	**0.54**	**5.7**	**--**
Bank St & Exhibition Way	Signalized	WB	L	A	0.41	33.9	23.9
			Right	A	0.33	11.8	10.4
		NB	L / Th / R	A	0.28	4.5	22.7
		SB	L	A	0.28	6.9	16.5
			Th	A	0.21	4.5	22.2
		Overall Intersection		**A**	**0.41**	**7**	**--**
Bank St & Wilton Cr	Minor Stop	EB	R	C	0.58	29.9	20.4
		NB	L	B	0.19	11.6	4.2
			Th	A	--	1.8	4.2
		Overall Intersection		**A**	**0.58**	**5.1**	**--**
Bank St & Echo Dr	Minor Stop	EB	R	B	0.08	14.3	1.8
		Overall Intersection		**A**	**0.08**	**0.3**	**--**
Bank St & Aylmer Ave	Signalized	EB	L / R	A	0.20	30.2	15.8
		NB	L / Th	A	0.37	5.5	22.4
		SB	Th / R	A	0.40	7.2	38.4
		Overall Intersection		**A**	**0.40**	**7.1**	**--**
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	B	0.63	59.8	37.5
		WB	L / Th / R	B	0.66	35.9	38.6
		NB	L / Th / R	A	0.40	6.6	32.6
		SB	L / Th / R	A	0.48	4.1	11.2
		Overall Intersection		**B**	**0.66**	**13.2**	**--**

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Total Delay (s)	Queue 95th (m)
QED & Princess Patricia Way	Minor Stop	NB	L / Th	A	0.05	8.3	1.2
		EB	L / R	B	0.28	15.2	6.6
		Overall Intersection		**A**	**0.28**	**3**	**--**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	A	0.42	37.3	25.2
		NB	L / Th	A	0.29	5.4	27.5
		SB	Th / R	A	0.37	6.1	40.5
		Overall Intersection		**A**	**0.42**	**9.2**	**--**
Bank St & Marche Way	Minor Stop	WB	L / R	B	0.14	12.4	3
		Overall Intersection		**A**	**0.14**	**0.8**	**--**
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	A	0.11	7.9	--
		WB	R	A	0.09	6.5	--
		NB	L / Th / R	A	0.16	7.9	--
		SB	R	A	0.10	6.6	--
		Overall Intersection		**A**	**0.16**	**7.2**	**--**
Garage Access at Exhibition Way	Two-Way Stop	WB	Th / L	A	0.00	8.4	0
		NB	L / R	B	0.18	15.3	0.7
		Overall Intersection		**A**	**0.19**	**2.9**	**--**
Exhibition Way and Service Roadway	All-Way Stop	EB	L / Th	A	0.15	7.8	--
		WB	Th / R	A	0.11	7.5	--
		SB	L / R	A	0.01	7.3	--
		Overall Intersection		**A**	**0.15**	**7.7**	**--**
Marché Way and Service Roadway	All-Way Stop	EB	L / Th	A	0.02	7	--
		WB	L / Th	A	0.09	7.4	--
		NB	L / R	A	0.01	7	--
		Overall Intersection		**A**	**0.09**	**7.3**	**--**
Marché Way and Exhibition Way	All-Way Stop	EB	Th / R	A	0.02	7.3	--
		WB	L / Th	A	0.12	8.1	--
		NB	L / R	A	0.15	8.1	--
		Overall Intersection		**A**	**0.16**	**8**	**--**
Garage Access at Princess Patricia Way	Two-Way Stop	EB	L	A	--	7.6	0.1
			Th	A	--	0	0.1
		SB	L / R	B	0.13	10.1	3.5
		Overall Intersection		**A**	**0.13**	**3.3**	**--**

L - Left, **Th** - Through, **R** - Right

Existing Sunday Peak Hour

Table 4.7 summarize intersection performance under Existing Sunday Peak Hour conditions. As summarized below, all study area intersections are currently operating with overall acceptable levels of service on Weekend Sunday peak periods with concurrent events at Lansdowne. No mitigation measure is recommended to improve intersection operations.

Table 4.7: Existing Sunday Peak Hour LOS Summary

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Total Delay (s)	Queue 95th (m)
Bank St & Fifth Ave	Signalized	EB	L / Th / R	A	0.53	30.2	26.4
		WB	L	B	0.65	41.7	30.7
			Th / R	A	0.36	20.1	20
		NB	L / Th / R	A	0.30	7.9	51.3
		SB	L / Th / R	A	0.33	6.5	30.8
		Overall Intersection		**B**	**0.65**	**12.9**	**--**
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	A	0.53	38.2	26.7
		NB	L / Th / R	A	0.34	7.2	49.5
		SB	L / Th / R	A	0.30	8.2	44.3
		Overall Intersection		**A**	**0.53**	**10**	**--**
Bank St & Exhibition Way	Signalized	WB	L	A	0.53	35.8	31.2
			Right	A	0.29	10.2	9.4
		NB	L / Th / R	A	0.36	11.3	37.9
		SB	L	A	0.41	12.4	26
			Th	A	0.21	5.1	23.4
		Overall Intersection		**A**	**0.53**	**11.6**	**--**
Bank St & Wilton Cr	Minor Stop	EB	R	C	0.62	25.5	28.8
		NB	L	B	0.18	11.4	5.1
			Th	A	--	1.7	5.1
		Overall Intersection		**A**	**0.62**	**4.6**	**--**
Bank St & Echo Dr	Minor Stop	EB	R	B	0.21	17.8	0.8
		Overall Intersection		**A**	**0.41**	**1.1**	**--**
Bank St & Aylmer Ave	Signalized	EB	L / R	A	0.40	35.7	21.9
		NB	L / Th	A	0.27	2.4	14.3
		SB	Th / R	A	0.31	3.4	26.2
		Overall Intersection		**A**	**0.40**	**4.6**	**--**
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	C	0.78	67.8	34.5
		WB	L / Th / R	B	0.70	32.8	35.5
		NB	L / Th / R	A	0.37	16.5	47.5
		SB	L / Th / R	A	0.49	4.7	11.3
		Overall Intersection		**C**	**0.78**	**16.5**	**--**

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Total Delay (s)	Queue 95th (m)
QED & Princess Patricia Way	Minor Stop	NB	L / Th	A	0.05	7.6	0.2
		EB	L / R	B	0.31	11.9	1.4
		Overall Intersection		**A**	**0.23**	**5.3**	**--**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	A	0.59	40.6	37.4
		NB	L / Th	A	0.30	7.3	27.9
		SB	Th / R	A	0.04	5.6	5.7
		Overall Intersection		**A**	**0.59**	**19.1**	**--**
Bank St & Marche Way	Minor Stop	WB	L / R	B	0.30	14	1.3
		Overall Intersection		**A**	**0.27**	**1.9**	**--**
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	A	0.23	9.9	0.9
		WB	R	A	0.30	9.4	1.3
		NB	L / Th / R	B	0.34	10.6	1.5
		SB	R	A	0.14	8.5	0.5
		Overall Intersection		**A**	**0.34**	**9.8**	**--**
Garage Access at Exhibition Way	Two-Way Stop	WB	Th / L	A	0.00	8.5	0
		NB	L / R	B	0.24	17.1	1
		Overall Intersection		**A**	**0.25**	**3.2**	**--**
Exhibition Way and Service Roadway	All-Way Stop	EB	L / Th	A	0.18	8	0.7
		WB	Th / R	A	0.13	7.7	0.5
		SB	L / R	A	0.01	7.4	0
		Overall Intersection		**A**	**0.18**	**7.9**	**--**
Marché Way and Service Roadway	All-Way Stop	EB	L / Th	A	0.02	7.1	0.1
		WB	L / Th	A	0.20	8	0.7
		NB	L / R	A	0.01	7.2	0
		Overall Intersection		**A**	**0.20**	**7.9**	**--**
Marché Way and Exhibition Way	All-Way Stop	EB	Th / R	A	0.02	7.3	0.1
		WB	L / Th	A	0.07	7.9	0.3
		NB	L / R	A	0.18	8.2	0.7
		Overall Intersection		**A**	**0.19**	**8**	**--**
Garage Access at Princess Patricia Way	Two-Way Stop	EB	L	A	--	7.5	0
			Th	A	--	0	--
		SB	L / R	B	0.23	10.7	0.9
		Overall Intersection		**A**	**0.23**	**5.3**	**--**

L - Left, **Th** - Through, **R** - Right

Existing Minor Event (Arena)

Table 4.8 summarize intersection performance during ingress and egress for a Minor Event held at Lansdowne under current conditions. As summarized in the table below, all study area intersections are currently operating with acceptable overall levels of service.

No mitigation measures are recommended to improve intersection operations.

Table 4.8: Existing Minor Event (Arena) LOS Summary

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Bank St & Fifth Ave	Signalized	EB	L / Th / R	B	A	0.65	0.51	36.9	31.9	32.3	18.8
		WB	L	A	A	0.42	0.34	33.3	34.4	18.8	15.5
			Th / R	A	A	0.30	0.30	19	19.5	15.6	12.6
		NB	L / Th / R	A	A	0.30	0.24	10	3.5	49.8	34.2
		SB	L / Th / R	A	A	0.35	0.20	6.3	3.6	33.6	15.6
		Overall Intersection		**B**	**A**	**0.65**	**0.51**	**12.6**	**9**	**--**	**--**
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	A	A	0.54	0.47	38.1	37.7	27.8	22.3
		NB	L / Th / R	A	A	0.37	0.29	2.9	4.2	13.9	22.1
		SB	L / Th / R	A	A	0.32	0.20	4.8	2.7	20.2	24.4
		Overall Intersection		**A**	**A**	**0.54**	**0.47**	**6.5**	**6.6**	**--**	**--**
Bank St & Exhibition Way	Signalized	WB	L	A	B	0.52	0.66	35.1	39.7	30.8	43.5
			Right	A	A	0.38	0.59	10.5	10.2	11.2	16.2
		NB	L / Th / R	A	A	0.35	0.16	4.9	4.8	26.6	12.4
		SB	L	A	A	0.45	0.25	7.4	8.9	10.5	8.8
			Th	A	A	0.21	0.14	3.1	6.5	8.8	7.6
		Overall Intersection		**A**	**B**	**0.52**	**0.66**	**7.6**	**11.6**	**--**	**--**
Bank St & Wilton Cr	Minor Stop	EB	R	D	B	0.85	0.32	52.8	18.8	45.6	7.8
		NB	L	B	B	0.19	0.07	12.1	10.3	5.3	1.8
			Th	A	A	--	--	2.2	0.6	5.3	1.8
		Overall Intersection		**B**	**A**	**0.85**	**0.32**	**10.5**	**2.9**	**--**	**--**
Bank St & Echo Dr	Minor Stop	EB	R	B	B	0.11	0.02	15.8	10.4	2.4	0.6
		Overall Intersection		**A**	**A**	**0.11**	**0.02**	**0.4**	**0.2**	**--**	**--**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Bank St & Aylmer Ave	Signalized	EB	L / R	A	A	0.35	0.03	36.4	27.2	26.1	4.4
		NB	L / Th	A	A	0.39	0.08	5.4	4.6	23.6	8.1
		SB	Th / R	A	A	0.32	0.10	6.4	5.2	28	9.6
		Overall Intersection		**A**	**A**	**0.39**	**0.10**	**7.6**	**5.7**	**--**	**--**
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	C	A	0.73	0.51	52.2	51.5	#42.6	19.1
		WB	L / Th / R	C	A	0.76	0.33	32.6	22.4	49.7	11.9
		NB	L / Th / R	A	A	0.30	0.12	8.1	3.4	32.2	11
		SB	L / Th / R	A	A	0.53	0.25	7.5	2.5	23.4	21.2
		Overall Intersection		**C**	**A**	**0.76**	**0.51**	**15.2**	**7**	**--**	**--**
QED & Princess Patricia Way	Minor Stop	NB	L / Th	A	A	0.13	0.01	9.3	7.6	2.4	0
		EB	L / R	C	B	0.36	0.59	21.6	16.1	9.6	24
		Overall Intersection		**A**	**B**	**0.36**	**0.59**	**3.4**	**10.4**	**--**	**--**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	A	A	0.44	0.45	28.6	37.7	22.4	23.4
		NB	L / Th	A	A	0.31	0.29	6.8	5.6	27.9	29.4
		SB	Th / R	A	A	0.58	0.18	10.7	4.9	78.2	18
		Overall Intersection		**A**	**A**	**0.58**	**0.45**	**11.2**	**9.8**	**--**	**--**
Bank St & Marche Way	Minor Stop	WB	L / R	B	B	0.11	0.27	12.3	13.4	2.4	6.6
		Overall Intersection		**A**	**A**	**0.11**	**0.27**	**0.6**	**2.1**	**--**	**--**
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	A	A	0.15	0.07	8.1	7.4	--	--
		WB	R	A	A	0.13	0.06	6.7	6.4	--	--
		NB	L / Th / R	A	A	0.18	0.08	8	7	--	--
		SB	R	A	A	0.08	0.09	6.5	6.5	--	--
		Overall Intersection		**A**	**A**	**0.18**	**0.09**	**7.4**	**6.8**	**--**	**--**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Garage Access at Exhibition Way	Two-Way Stop	WB	Th / L	A	A	--	--	8.8	0	0	0
		NB	L / R	B	C	0.29	0.43	19.8	24.7	1.2	2.1
		Overall Intersection		**A**	**A**	**0.30**	**0.44**	**3.3**	**5.2**	**--**	**--**
Exhibition Way and Service Roadway	All-Way Stop	EB	L / Th	A	A	0.28	0.25	8.7	8.7	1.2	1
		WB	Th / R	A	A	0.15	0.35	7.9	9.4	0.5	1.6
		SB	L / R	A	A	0.01	0.01	7.6	7.9	0	0
		Overall Intersection		**A**	**A**	**0.29**	**0.36**	**8.4**	**9.1**	**--**	**--**
Marché Way and Service Roadway	All-Way Stop	EB	L / Th	A	A	0.02	0.03	7	7.2	0.1	0.1
		WB	L / Th	A	A	0.06	0.18	7.3	7.9	0.2	0.7
		NB	L / R	A	A	0.01	0.01	7	7.2	0	0
		Overall Intersection		**A**	**A**	**0.07**	**0.18**	**7.2**	**7.8**	**--**	**--**
Marché Way and Exhibition Way	All-Way Stop	EB	Th / R	A	A	0.03	0.03	7.8	7.6	0.1	0.1
		WB	L / Th	A	A	0.23	0.11	9.2	8.2	0.9	0.4
		NB	L / R	A	A	0.31	0.25	9.7	8.5	1.4	1
		Overall Intersection		**A**	**A**	**0.32**	**0.25**	**9.4**	**8.3**	**--**	**--**
Garage Access at Princess Patricia Way	Two-Way Stop	EB	L	A	A	--	--	8.1	7.4	0	0
			Th	A	A	--	--	0	0	--	0
		SB	L / R	B	B	0.14	0.47	11.3	13.2	0.5	19.6
		Overall Intersection		**A**	**A**	**0.14**	**0.47**	**2.2**	**9.3**	**--**	**--**

L - Left, **Th** - Through, **R** - Right

Existing Major Event (Stadium)

Table 4.9 summarize intersection performance during ingress and egress for a Major Event held at Lansdowne under current conditions. As illustrated below, all study area intersections are currently operating with overall acceptable levels of service during Major Events held at the Stadium at TD Place.

The eastbound approach at intersection of Bank Street and Wilton Crescent is currently operating with a LOS F. This occurs during the event Ingress period which overlaps with the regular PM peak period. The delays at this intersection are not directly attributed to event traffic held at Lansdowne and are associated with limited gaps in traffic in the southbound direction associated with the recently installed 3-lane cross-section of Bank Street.

No mitigation measures are recommended to improve intersection operations.

Table 4.9: Existing Major Event (Stadium) LOS Summary

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Bank St & Fifth Ave	Signalized	EB	L / Th / R	B	B	0.68	0.67	37.9	39.2	34.5	31.8
		WB	L	A	A	0.43	0.22	32.5	26.3	19.9	12.1
			Th / R	A	A	0.40	0.46	18.3	20.1	20.3	23.1
		NB	L / Th / R	A	A	0.31	0.21	6.8	4.9	31.2	16
		SB	L / Th / R	A	A	0.42	0.24	7.3	5.8	41.4	21.1
		Overall Intersection		**B**	**B**	**0.68**	**0.67**	**11.6**	**11.8**	**--**	**--**
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	B	B	0.61	0.61	38.5	38.7	34.1	32.8
		NB	L / Th / R	A	A	0.48	0.25	7.1	5	38.8	17.4
		SB	L / Th / R	A	A	0.42	0.23	4	3.1	17.1	9.2
		Overall Intersection		**B**	**B**	**0.61**	**0.61**	**8.2**	**10**	**--**	**--**
Bank St & Exhibition Way	Signalized	WB	L	*Movements Temporarily Restricted During Major Events*							
			Right								
		NB	L / Th / R	A	A	0.32	0.12	4.3	0.1	27.2	0
		SB	L	*Movements Temporarily Restricted During Major Events*							
			Th	A	A	0.26	0.12	4.1	0.1	22	0
		Overall Intersection		**A**	**A**	**0.32**	**0.12**	**5.3**	**0.1**	**--**	**--**
Bank St & Wilton Cr	Minor Stop	EB	R	F	B	0.97	0.01	81.9	13.2	60	0
		NB	L	B	A	0.19	--	12.1	0	5.3	0
			Th	A	A	--	--	2.2	--	5.3	0
		Overall Intersection		**B**	**A**	**0.97**	**0.01**	**14.2**	**0.1**	**--**	**--**
Bank St & Echo Dr	Minor Stop	EB	R	B	B	0.22	0.05	17.7	10.3	4.8	1.2
		Overall Intersection		**A**	**A**	**0.22**	**0.05**	**0.8**	**0.5**	**--**	**--**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Bank St & Aylmer Ave	Signalized	EB	L / R	A	A	0.50	0.17	38.1	23.5	33.9	11.4
		NB	L / Th	A	A	0.41	0.19	5.5	4.9	24.9	13.4
		SB	Th / R	A	A	0.43	0.17	7.9	4.9	47	14.4
		Overall Intersection		**A**	**A**	**0.50**	**0.19**	**9.9**	**6.6**	**--**	**--**
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	B	A	0.69	0.57	45	50.3	#51.3	27.2
		WB	L / Th / R	C	A	0.75	0.50	35.2	31.5	37.2	22.7
		NB	L / Th / R	A	A	0.37	0.15	9.4	4	37.2	14
		SB	L / Th / R	C	A	0.71	0.17	10.8	1.2	83.5	3.4
		Overall Intersection		**C**	**A**	**0.75**	**0.57**	**20.2**	**10.6**	**--**	**--**
QED & Princess Patricia Way	Minor Stop	NB	L / Th	A	A	0.14	0.05	9.9	8.2	3	0.6
		EB	L / R	D	D	0.77	0.87	50.3	39.7	34.2	58.8
		Overall Intersection		**A**	**B**	**0.77**	**0.87**	**8.7**	**19.2**	**--**	**--**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	B	B	0.62	0.67	39.9	39.6	39.2	47.6
		NB	L / Th	A	A	0.50	0.38	10.5	9.1	52.8	48.6
		SB	Th / R	C	A	0.76	0.37	16.3	8.9	#174.4	48.6
		Overall Intersection		**C**	**B**	**0.76**	**0.67**	**18.8**	**14.6**	**--**	**--**
Bank St & Marche Way	Minor Stop	WB	L / R	*Movements Temporarily Restricted During Major Events*							
		Overall Intersection									
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	A	A	0.17	0.11	8.5	8.5	--	--
		WB	R	A	A	0.19	0.11	6.9	6.6	--	--
		NB	L / Th / R	A	A	0.26	0.43	8.4	10	--	--
		SB	R	A	A	0.13	0.05	6.7	6.4	--	--
		Overall Intersection		**A**	**A**	**0.26**	**0.43**	**7.7**	**8.8**	**--**	**--**

L - Left, **Th** - Through, **R** - Right

2028 Future Conditions

Intersection operational analysis under 2028 Future Conditions is summarized in this section. This horizon year represents an interim operating condition for Lansdowne 2.0, whereby the new event centre is complete and open, while Phase 2 (new north stadium stands) and Phase 3 (retail podium and residential towers) are under construction.

This horizon year also assumes that the Bank Street garage ramp is temporarily closed to accommodate Phase 2 and Phase 3 construction as described in earlier sections.

2028 Future Weekday AM and PM Peak

Table 4.10 summarize intersection performance under 2028 Future Weekday AM and PM peak hour conditions. As shown in the table below, all study area intersections are projected to operate with overall acceptable levels of service under the Weekday AM and PM peak hour conditions.

The intersection of Bank Street and Sunnyside Avenue is projected to continue to operate with specific movements at or close to theoretical capacity in the southbound approach (AM Peak) and westbound approach (PM Peak).

The eastbound approach at intersection of Bank Street and Wilton Crescent is projected to continue to operate with a LOS E due to vehicle delays during the PM peak hour. The delays are associated with limited gaps in traffic in the southbound direction associated with the recently installed 3-lane cross-section of Bank Street.

With the temporary closure of the Exhibition Way garage ramp and assumed re-routed traffic patterns, all internal study area intersections are projected to continue to operate acceptably with no delays or queues.

Table 4.10: 2028 Future Weekday AM and PM Peak LOS Summary

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				AM	PM	AM	PM	AM	PM	AM	PM
Bank St & Fifth Ave	Signalized	EB	L / Th / R	A	B	0.37	0.67	22.2	22.5	28.4	31.7
		WB	L	A	A	0.20	0.43	23.1	24.4	14.8	17.9
			Th / R	A	A	0.21	0.29	15.9	14.1	16.4	14.3
		NB	L / Th / R	A	A	0.40	0.30	3.5	13.9	5.3	50.1
		SB	L / Th / R	A	A	0.33	0.38	8.6	9.8	26.4	37.5
		Overall Intersection		**A**	**B**	**0.40**	**0.67**	**8.6**	**13.4**	**--**	**--**
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	A	A	0.48	0.55	37.8	38.8	23.3	27.6
		NB	L / Th / R	A	A	0.30	0.33	2.2	1.9	4.4	9.1
		SB	L / Th / R	A	A	0.21	0.33	3.1	3.4	13.6	14.3
		Overall Intersection		**A**	**A**	**0.48**	**0.55**	**5.2**	**5.5**	**--**	**--**
Bank St & Exhibition Way	Signalized	WB	L	A	A	0.20	0.55	22.9	39.5	13	32
			Right	A	A	0.14	0.27	10.3	11	5.9	9.2
		NB	L / Th / R	A	A	0.31	0.32	4.7	5.5	24	30.5
		SB	L	A	A	0.14	0.25	5.9	7.9	7.2	16.1
			Th	A	A	0.16	0.24	4.2	5.4	13.6	26.2
		Overall Intersection		**A**	**A**	**0.31**	**0.55**	**5.6**	**8.8**	**--**	**--**
Bank St & Wilton Cr	Minor Stop	EB	R	C	E	0.52	0.89	23.5	66.9	27.4	88.7
		NB	L	B	B	0.21	0.38	10.9	14.4	6.1	15.2
			Th	A	A	--	--	1.9	3.8	--	--
		Overall Intersection		**A**	**B**	**0.52**	**0.89**	**5.3**	**12.9**	**--**	**--**
Bank St & Echo Dr	Minor Stop	EB	R	B	B	0.06	0.10	12.8	20	2.2	3.2
		Overall Intersection		**A**	**A**	**0.36**	**0.53**	**0.3**	**0.3**	**--**	**--**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				AM	PM	AM	PM	AM	PM	AM	PM
Bank St & Aylmer Ave	Signalized	EB	L / R	A	A	0.38	0.37	29.6	31.5	21.8	24.2
		NB	L / Th	A	A	0.35	0.41	3.5	4.3	m15.2	m14.2
		SB	Th / R	A	A	0.28	0.48	7.4	8	29.5	47.8
		Overall Intersection		**A**	**A**	**0.38**	**0.48**	**6.5**	**7.6**	**--**	**--**
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	B	B	0.65	0.69	39.1	45.2	36.3	#57.1
		WB	L / Th / R	D	E	0.87	0.95	33.5	57.6	#73.1	#101.8
		NB	L / Th / R	B	A	0.65	0.45	14.4	20.4	85.4	45.7
		SB	L / Th / R	F	E	1.10dl	0.94	29.6	28.5	#79.7	#109.8
		Overall Intersection		**D**	**E**	**0.87**	**0.95**	**23.6**	**33**	**--**	**--**
QED & Princess Patricia Way	Minor Stop	NB	L / Th	A	A	0.06	0.06	8.3	9.1	1.6	1.7
		EB	L / R	B	C	0.12	0.42	14.1	23.7	3.1	15.2
		Overall Intersection		**A**	**A**	**0.10**	**0.42**	**1.8**	**2.6**	**--**	**--**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	A	A	0.25	0.45	23.8	31.8	19.2	26.3
		NB	L / Th	A	A	0.34	0.28	21.3	15	48.5	42.6
		SB	Th / R	A	A	0.43	0.57	24.5	23.2	67.2	119.7
		Overall Intersection		**A**	**A**	**0.43**	**0.57**	**23.2**	**21.9**	**--**	**--**
Bank St & Marche Way	Minor Stop	WB	L / R	B	A	0.08	0.16	12.8	9.5	1.4	4.5
		Overall Intersection		**A**	**A**	**0.08**	**0.16**	**0.4**	**0.9**	**--**	**--**
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	A	A	0.15	0.16	8.4	8.6	0.5	0.6
		WB	R	A	A	0.09	0.13	7.3	7.5	0.3	0.4
		NB	L / Th / R	A	A	0.10	0.13	7.9	8.2	0.3	0.5
		SB	R	A	A	0.13	0.12	7.5	7.5	0.4	0.4
		Overall Intersection		**A**	**A**	**0.15**	**0.16**	**7.8**	**8**	**--**	**--**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				AM	PM	AM	PM	AM	PM	AM	PM
Exhibition Way and Service Roadway	All-Way Stop	EB	L / Th	A	A	0.19	0.28	8.1	8.7	0.7	1.1
		WB	Th / R	A	A	0.11	0.23	7.6	8.4	0.4	0.9
		SB	L / R	A	A	0.01	0.01	7.4	7.7	0	--
		Overall Intersection		**A**	**A**	**0.20**	**0.53**	**7.9**	**8.5**	**--**	**--**
Marché Way and Service Roadway	All-Way Stop	EB	L / Th	A	A	0.00	0.01	6.7	6.6	--	--
		WB	L / Th	A	A	0.15	0.01	7.7	7.1	0.6	--
		NB	L / R	A	A	0.01	0.01	7.1	6.8	--	--
		Overall Intersection		**A**	**A**	**0.16**	**0.01**	**7.6**	**6.9**	**--**	**--**
Marché Way and Exhibition Way	All-Way Stop	EB	Th / R	A	A	0.00	0.01	7.1	7.4	--	--
		WB	L / Th	A	A	0.17	0.21	8.4	9	0.6	0.8
		NB	L / R	A	A	0.21	0.29	8.2	8.5	0.8	1.3
		Overall Intersection		**A**	**A**	**0.21**	**0.30**	**8.3**	**8.7**	**--**	**--**
Garage Access at Princess Patricia Way	Two-Way Stop	EB	L	A	A	0.04	0.07	7.7	7.8	1.0	1.8
			Th	A	A	0.00	0.00	0.0	0.0	0.0	0.0
		SB	L / R	A	B	0.03	0.17	9.8	11.4	0.6	4.6
		Overall Intersection		**A**	**A**	**0.04**	**0.17**	**2.2**	**4.7**	**--**	**--**

L - Left, **Th** - Through, **R** - Right

2028 Future Saturday Peak Hour

Table 4.11 summarize intersection performance under 2028 Future Saturday Peak Hour conditions. As summarized below, all study area intersections are projected to continue to operate with overall acceptable levels of service.

With the temporary closure of the Exhibition Way garage ramp and assumed re-routed traffic, all internal study area intersections as Lansdowne are projected to continue to operate acceptably with no delays or queues.

Table 4.11: 2028 Future Saturday Peak Hour LOS

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Total Delay (s)	Queue 95th (m)
Bank St & Fifth Ave	Signalized	EB	L / Th / R	B	0.64	20.6	27
		WB	L	A	0.50	24.7	19.9
			Th / R	A	0.40	13.2	16.5
		NB	L / Th / R	A	0.30	12.9	51
		SB	L / Th / R	A	0.32	9.2	32.2
		Overall Intersection		**B**	**0.64**	**12.7**	**--**
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	A	0.55	38.8	27.2
		NB	L / Th / R	A	0.31	2.3	9
		SB	L / Th / R	A	0.32	3.9	22
		Overall Intersection		**A**	**0.55**	**6.0**	**--**
Bank St & Exhibition Way	Signalized	WB	L	A	0.37	33.9	22.2
			Right	A	0.31	12.0	9.7
		NB	L / Th / R	A	0.29	4.6	23.3
		SB	L	A	0.26	4.8	7.5
			Th	A	0.23	3.2	13
		Overall Intersection		**A**	**0.37**	**6.2**	**--**
Bank St & Wilton Cr	Minor Stop	EB	R	C	0.62	33.5	41.9
		NB	L	B	0.20	11.9	6
			Th	A	--	2.0	--
		Overall Intersection		**A**	**0.62**	**6.0**	**--**
Bank St & Echo Dr	Minor Stop	EB	R	B	0.08	14.9	3.6
		Overall Intersection		**A**	**0.08**	**0.4**	**--**
Bank St & Aylmer Ave	Signalized	EB	L / R	A	0.23	30.2	16.7
		NB	L / Th	A	0.39	5.8	28.1
		SB	Th / R	A	0.42	7.4	41
		Overall Intersection		**A**	**0.42**	**7.4**	**--**

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Total Delay (s)	Queue 95th (m)
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	B	0.62	45.7	#41.1
		WB	L / Th / R	B	0.66	33.4	#44.0
		NB	L / Th / R	A	0.34	7.2	29.4
		SB	L / Th / R	A	0.48	6.6	21.1
		Overall Intersection		**B**	**0.66**	**13.1**	**--**
QED & Princess Patricia Way	Minor Stop	NB	L / Th	A	0.07	8.4	1.6
		EB	L / R	B	0.36	17.6	11.9
		Overall Intersection		**A**	**0.36**	**3.8**	**--**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	A	0.49	32.7	29.7
		NB	L / Th	A	0.33	14.6	49.9
		SB	Th / R	A	0.40	15.9	69.1
		Overall Intersection		**A**	**0.49**	**17.5**	**--**
Bank St & Marche Way	Minor Stop	WB	L / R	B	0.15	13.2	0.5
		Overall Intersection		**A**	**0.15**	**0.9**	**--**
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	A	0.18	8.4	--
		WB	R	A	0.13	8.4	--
		NB	L / Th / R	A	0.12	7.6	--
		SB	R	A	0.13	7.5	--
		Overall Intersection		**A**	**0.18**	**8.0**	**--**
Exhibition Way and Service Roadway	All-Way Stop	EB	L / Th	A	0.27	8.6	--
		WB	Th / R	A	0.18	8.1	--
		SB	L / R	A	0.01	7.6	--
		Overall Intersection		**A**	**0.27**	**8.4**	**--**
Marché Way and Service Roadway	All-Way Stop	EB	L / Th	A	0.01	7.0	--
		WB	L / Th	A	0.02	7.0	--
		NB	L / R	A	0.10	7.4	--
		Overall Intersection		**A**	**--**	**7.3**	**--**
Marché Way and Exhibition Way	All-Way Stop	EB	Th / R	A	0.31	9.2	--
		WB	L / Th	A	0.03	7.7	--
		NB	L / R	A	0.14	8.6	--
		Overall Intersection		**A**	**0.31**	**9.0**	**--**
Garage Access at Princess Patricia Way	Two-Way Stop	EB	L	A	0.08	7.9	1.9
			Th	A	--	0.0	--
		SB	L / R	B	0.34	13.4	11.2
		Overall Intersection		**A**	**0.34**	**6.2**	**--**

L - Left, **Th** - Through, **R** - Right

2028 Future Sunday Peak Hour

Table 4.12 summarize intersection performance under 2028 Future Saturday Peak Hour conditions. As summarized below, all study area intersections are projected to continue to operate with overall acceptable levels of service.

With the temporary closure of the Exhibition Way garage ramp and assumed re-routed traffic, all internal study area intersections as Lansdowne are projected to operate acceptably with no delays or queues.

Table 4.12: 2028 Future Sunday Peak Hour LOS Summary

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Total Delay (s)	Queue 95th (m)
Bank St & Fifth Ave	Signalized	EB	L / Th / R	A	0.53	29.7	26.8
		WB	L	B	0.68	43.5	33.2
			Th / R	A	0.36	19.7	20.2
		NB	L / Th / R	A	0.32	8.2	52.8
		SB	L / Th / R	A	0.33	6.8	30.9
		Overall Intersection		**B**	**0.68**	**13.4**	**--**
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	A	0.55	38.5	26.9
		NB	L / Th / R	A	0.36	7.8	53.2
		SB	L / Th / R	A	0.31	8.5	44.5
		Overall Intersection		**A**	**0.55**	**10.4**	**--**
Bank St & Exhibition Way	Signalized	WB	L	A	0.51	36.0	29.0
			Right	A	0.25	10.5	8.6
		NB	L / Th / R	A	0.36	11.5	38.0
		SB	L	A	0.38	11.2	23.3
			Th	A	0.22	5.2	26.2
		Overall Intersection		**A**	**0.51**	**11.3**	**--**
Bank St & Wilton Cr	Minor Stop	EB	R	C	0.52	27.5	32.4
		NB	L	B	0.18	11.7	4.2
			Th	A	--	1.8	4.2
		Overall Intersection		**A**	**0.52**	**4.8**	**--**
Bank St & Echo Dr	Minor Stop	EB	R	B	0.23	18.6	8.3
		Overall Intersection		**A**	**0.23**	**1.0**	**--**
Bank St & Aylmer Ave	Signalized	EB	L / R	A	0.43	36.0	23.1
		NB	L / Th	A	0.29	8.4	58.7
		SB	Th / R	A	0.32	3.6	28.4
		Overall Intersection		**A**	**0.43**	**4.9**	**--**

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Total Delay (s)	Queue 95th (m)
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	C	0.78	66.7	35.1
		WB	L / Th / R	B	0.70	33.0	36.5
		NB	L / Th / R	A	0.39	16.9	48.7
		SB	L / Th / R	A	0.51	13.4	65.8
		Overall Intersection		**C**	**0.78**	**20.7**	**--**
QED & Princess Patricia Way	Minor Stop	NB	L / Th	A	0.06	7.7	3.3
		EB	L / R	B	0.39	13.3	13.3
		Overall Intersection		**A**	**0.39**	**6.4**	**--**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	B	0.64	37.4	39.4
		NB	L / Th	A	0.34	8.7	33.7
		SB	Th / R	A	0.05	6.4	7.4
		Overall Intersection		**B**	**0.64**	**19.0**	**--**
Bank St & Marche Way	Minor Stop	WB	L / R	B	0.33	15.1	9.3
		Overall Intersection		**A**	**0.33**	**2.0**	**--**
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	A	0.24	10.0	--
		WB	R	A	0.32	0.6	--
		NB	L / Th / R	B	0.35	10.7	--
		SB	R	A	0.15	8.6	--
		Overall Intersection		**A**	**0.35**	**9.9**	**--**
Exhibition Way and Service Roadway	All-Way Stop	EB	L / Th	A	0.32	9.1	--
		WB	Th / R	A	0.22	8.4	--
		SB	L / R	A	0.01	7.8	--
		Overall Intersection		**A**	**0.32**	**8.8**	**--**
Marché Way and Service Roadway	All-Way Stop	EB	L / Th	A	0.01	7.2	--
		WB	L / Th	A	0.02	7.1	--
		NB	L / R	A	0.21	8.0	--
		Overall Intersection		**A**	**0.21**	**7.9**	**--**
Marché Way and Exhibition Way	All-Way Stop	EB	Th / R	A	0.40	9.6	--
		WB	L / Th	A	0.03	7.8	--
		NB	L / R	A	0.10	8.4	--
		Overall Intersection		**A**	**0.40**	**9.3**	
Garage Access at Princess Patricia Way	Two-Way Stop	EB	L	A	0.09	7.9	2.2
			Th	A	--	0.0	2.2
		SB	L / R	B	0.50	16.9	20.7
		Overall Intersection		**A**	**0.50**	**8.9**	**--**

L - Left, **Th** - Through, **R** - Right

2028 Future Minor Event (Event Centre)

Table 4.13 summarize intersection performance during ingress and egress for a minor event held at the new event centre at Lansdowne under 2028 future conditions. As summarized in the table below, all study area intersections are projected to operate with overall acceptable levels of service during the ingress and egress period.

The eastbound approach at intersection of Bank Street and Wilton Crescent is expected to operate with a LOS E. This occurs during the event Ingress period which overlaps with the regular PM peak period. The delays at this intersection are not directly attributed to event traffic held at Lansdowne and are associated with limited gaps in traffic in the southbound direction associated with the recently installed 3-lane cross-section of Bank Street.

With the temporary closure of the Exhibition Way garage ramp and assumed re-routed traffic, all internal study area intersections as Lansdowne are projected to continue to operate acceptably with no delays or queues.

No mitigation measures are recommended to improve intersection operations.

Table 4.13: 2028 Future Minor Event (Event Centre) LOS Summary

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Bank St & Fifth Ave	Signalized	EB	L / Th / R	B	A	0.67	0.50	37.6	30.7	33.3	19.1
		WB	L	A	A	0.47	0.40	34.7	35.9	20.9	18.1
			Th / R	A	A	0.40	0.30	16.0	18.9	17.6	12.9
		NB	L / Th / R	A	A	0.32	0.24	5.8	3.7	26.2	18.3
		SB	L / Th / R	A	A	0.36	0.21	6.7	3.9	34.5	16.6
		Overall Intersection		**B**	**A**	**0.67**	**0.50**	**11.5**	**8.3**	**--**	**--**
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	A	A	0.56	0.48	38.5	38.1	28.3	22.9
		NB	L / Th / R	A	A	0.38	0.29	5.5	4.4	32.3	23.2
		SB	L / Th / R	A	A	0.33	0.21	3.2	2.9	16.2	11.9
		Overall Intersection		**A**	**A**	**0.56**	**0.48**	**7.1**	**6.5**	**--**	**--**
Bank St & Exhibition Way	Signalized	WB	L	A	B	0.50	0.64	38.3	39.9	30.1	42.7
			Right	A	A	0.35	0.57	11.6	10.4	10.7	16.4
		NB	L / Th / R	A	A	0.33	0.17	4.8	4.7	27.3	12.6
		SB	L	A	A	0.38	0.26	9.3	8.9	25.1	18.7
			Th	A	A	0.20	0.14	4.8	6.4	20.6	15.4
		Overall Intersection		**A**	**B**	**0.50**	**0.64**	**8.3**	**12.6**	**--**	**--**
Bank St & Wilton Cr	Minor Stop	EB	R	E	B	0.89	0.33	62.1	19.4	93.9	13.3
		NB	L	B	B	0.23	0.07	12.0	10.4	7.4	1.8
			Th	A	A	--	--	2.5	0.6	7.4	1.8
		Overall Intersection		**B**	**A**	**0.89**	**0.33**	**12.7**	**3.2**	**--**	**--**
Bank St & Echo Dr	Minor Stop	EB	R	B	B	0.11	0.01	16.3	10.4	5.4	0.7
		Overall Intersection		**A**	**A**	**0.11**	**0.01**	**0.4**	**0.2**	**--**	**--**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Bank St & Aylmer Ave	Signalized	EB	L / R	A	A	0.36	0.03	36.7	27.2	26.6	4.4
		NB	L / Th	A	A	0.40	0.09	5.4	4.6	23.8	6.6
		SB	Th / R	A	A	0.34	0.11	6.5	5.3	29.5	9.7
		Overall Intersection		**A**	**A**	**0.40**	**0.11**	**7.7**	**5.3**	**--**	**--**
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	C	A	0.71	0.52	49.5	509.0	#44.5	21.4
		WB	L / Th / R	C	A	0.76	0.33	33.3	22.0	#53.8	13.0
		NB	L / Th / R	A	A	0.32	0.12	8.5	3.5	32.7	11.6
		SB	L / Th / R	A	A	0.56	0.26	8.2	2.6	59.8	12.4
		Overall Intersection		**C**	**A**	**0.76**	**0.52**	**15.6**	**7.1**	**--**	**--**
QED & Princess Patricia Way	Minor Stop	NB	L / Th	A	A	0.14	0.01	9.5	7.7	4.6	2.2
		EB	L / R	C	B	0.51	0.65	29.3	17.9	29.8	37.1
		Overall Intersection		**A**	**B**	**0.51**	**0.65**	**4.8**	**11.8**	**--**	**--**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	A	A	0.51	0.46	33.4	31.8	31.3	27.5
		NB	L / Th	A	A	0.36	0.33	23.0	14.6	65.8	53.2
		SB	Th / R	B	A	0.61	0.18	26.1	11.8	#148.1	28.9
		Overall Intersection		**B**	**A**	**0.61**	**0.46**	**26.0**	**16.3**	**--**	**--**
Bank St & Marche Way	Minor Stop	WB	L / R	B	B	0.11	0.28	13.0	14.0	3.0	9.9
		Overall Intersection		**A**	**A**	**0.11**	**0.28**	**0.6**	**2.2**	**--**	**--**
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	A	A	0.16	0.07	8.7	7.7	--	--
		WB	R	A	A	0.17	0.07	7.9	7.1	--	--
		NB	L / Th / R	A	A	0.19	0.08	8.7	7.3	--	--
		SB	R	A	A	0.10	0.11	7.7	7.1	--	--
		Overall Intersection		**A**	**A**	**0.19**	**0.11**	**8.3**	**7.3**	**--**	**--**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Exhibition Way and Service Roadway	All-Way Stop	EB	L / Th	B	B	0.46	0.30	11.4	10.1	--	7.8
		WB	Th / R	A	A	0.00	0.00	7.8	8.1	--	0.0
		SB	L / R	A	A	0.24	0.44	8.6	10.0	--	13.8
		Overall Intersection		**B**	**A**	**0.46**	**0.44**	**10.4**	**10.0**	**--**	**--**
Marché Way and Service Roadway	All-Way Stop	EB	L / Th	A	A	0.03	0.04	8.3	7.9	--	0.6
		WB	L / Th	B	A	0.34	0.24	10.4	9.1	--	0.5
		NB	L / R	B	A	0.42	0.26	10.4	8.7	--	6.0
		Overall Intersection		**A**	**A**	**0.42**	**0.26**	**7.2**	**8.8**	**--**	**--**
Marché Way and Exhibition Way	All-Way Stop	EB	Th / R	A	A	0.16	0.11	8.0	7.6	--	2.4
		WB	L / Th	A	A	0.28	0.21	8.6	8.1	--	4.8
		NB	L / R	A	A	0.00	0.00	7.8	7.5	--	0.0
		Overall Intersection		**A**	**A**	**0.28**	**0.21**	**8.4**	**7.9**	**--**	**--**
Garage Access at Princess Patricia Way	Two-Way Stop	EB	L	A	A	0.10	0.00	8.6	7.4	0.0	0.0
			Th	A	A	--	--	0.0	0.0	--	--
		SB	L / R	B	B	0.38	0.63	16.1	16.1	13.2	27.0
		Overall Intersection		**A**	**B**	**0.38**	**0.63**	**5.3**	**12.2**	**--**	**--**

L - Left, **Th** - Through, **R** - Right

2028 Future Major Event (Stadium)

Table 4.14 summarize intersection performance during ingress and egress for a Major Event held at Lansdowne under 2028 future background conditions. As illustrated below, all study area intersections are projected to continue to operate with overall acceptable levels of service during Major Events held at the Stadium at TD Place.

The eastbound approach at intersection of Bank Street and Wilton Crescent is projected to continue to operate with a LOS F. This occurs during the event Ingress period which overlaps with the regular PM peak period. The delays at this intersection are not directly attributed to event traffic held at Lansdowne and are associated with limited gaps in traffic in the southbound direction associated with the recently installed 3-lane cross-section of Bank Street.

In addition, the eastbound approach of the Queen Elizabeth Drive and Princess Patricia Way intersection is shown to operate with an LOS rating of E for the Ingress period. Although the analysis indicates that the movements are operating with delays, the performance of this intersection is adequately managed through the deployment of Ottawa Police Point duty as part of the traffic management measures for Major Events at Lansdowne.

No mitigation measures are recommended to improve intersection operations.

Table 4.14: 2028 Future Major Event (Stadium) LOS Summary

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Bank St & Fifth Ave	Signalized	EB	L / Th / R	C	C	0.72	0.80	40.7	54.6	36.1	#36.9
		WB	L	A	A	0.57	0.23	38.2	25.9	25.6	12.8
			Th / R	A	A	0.48	0.59	17.6	19.7	22.7	28.6
		NB	L / Th / R	A	A	0.32	0.23	6.9	5.2	30.7	16.5
		SB	L / Th / R	A	A	0.46	0.25	7.9	6.2	43.5	21.8
		Overall Intersection		**C**	**C**	**0.72**	**0.80**	**13.5**	**14.6**	**--**	**--**
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	B	A	0.63	0.55	38.8	32.4	34.8	32.9
		NB	L / Th / R	A	A	0.49	0.28	7.4	7.0	39.3	20.4
		SB	L / Th / R	A	A	0.43	0.26	4.5	4.1	19.6	9.6
		Overall Intersection		**B**	**A**	**0.63**	**0.55**	**9.1**	**10.00**	**--**	**--**
Bank St & Exhibition Way	Signalized	WB	L	*Movements Temporarily Restricted During Major Events*							
			Right								
		NB	L / Th / R	A	A	0.24	0.13	0.2	0.1	0	0
		SB	L	*Movements Temporarily Restricted During Major Events*							
			Th	A	A	0.21	0.12	0.20	0.10	0.00	0.00
		Overall Intersection		**A**	**A**	**0.24**	**0.13**	**0.20**	**0.10**	**--**	**--**
Bank St & Wilton Cr	Minor Stop	EB	R	F	B	1.03	0.01	99.4	13.4	67.8	0.0
		NB	L	B	A	0.20	-	12.4	0	4.2	0
			Th	A	A	-	-	2.4		-	-
		Overall Intersection		**B**	**A**	**1.03**	**0.01**	**17.70**	**0.10**	**-**	**-**
Bank St & Echo Dr	Minor Stop	EB	R	B	B	0.24	0.05	18.6	10.4	5.4	1.2
		Overall Intersection		**B**	**B**	**0.24**	**0.05**	**18.60**	**10.40**	**-**	**-**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Bank St & Aylmer Ave	Signalized	EB	L / R	A	A	0.52	0.17	38.6	23.9	34.7	11.7
		NB	L / Th	A	A	0.42	0.20	5.6	4.9	25.3	13.7
		SB	Th / R	A	A	0.45	0.18	8.2	5.5	49.4	15.0
		Overall Intersection		**A**	**A**	**0.52**	**0.20**	**9.1**	**6.1**	**-**	**-**
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	B	A	0.68	0.59	43.40	50.8	#55.5	28.0
		WB	L / Th / R	C	A	0.74	0.49	34.40	30.9	#66.7	22.9
		NB	L / Th / R	A	A	0.39	0.15	9.90	4.1	38.20	14.6
		SB	L / Th / R	C	A	0.75	0.18	12.30	1.3	89.00	3.5
		Overall Intersection		**C**	**A**	**0.75**	**0.59**	**17.4**	**10.5**	**-**	**-**
QED & Princess Patricia Way	Minor Stop	NB	L / Th	A	A	0.14	0.05	3.78	8.20	4.20	0.6
		EB	L / R	E	D	0.77	0.89	68.81	43.20	108.60	62.4
		Overall Intersection		**D**	**A**	**0.77**	**0.89**	**52.5**		**-**	**-**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	B	B	0.62	0.68	35.4	39.20	54.70	49.8
		NB	L / Th	A	A	0.50	0.40	189.3	9.70	#103.7	51
		SB	Th / R	C	A	0.76	0.38	31.8	9.40	#210.7	51
		Overall Intersection		**C**	**B**	**0.76**	**0.68**	**76.0**	**16.20**	**-**	**-**
Bank St & Marche Way	Minor Stop	WB	L / R	*Movements Temporarily Restricted During Major Events*							
		Overall Intersection									
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	A	A	0.20	0.13	9.6	9.0	4.8	2.4
		WB	R	A	A	0.27	0.16	9.1	8.4	6.6	3.6
		NB	L / Th / R	A	B	0.31	0.49	9.9	11.4	8.4	16.2
		SB	R	A	A	0.18	0.08	8.5	7.7	4.2	1.2
		Overall Intersection		**A**	**B**	**0.31**	**0.49**	**9.30**	**10.20**	**-**	**-**

2033 Future Background Conditions

Intersection operational analysis under 2033 Future Background Conditions is summarized in this section. This horizon year represents future roadway operations without the addition of Lansdowne 2.0 transportation demands.

Under this scenario, assumed traffic growth is exclusively attributed to other nearby developments, or general background growth.

2033 Future Background Weekday AM and PM Peak

Table 4.15 summarize intersection performance under 2033 Future Background Weekday AM and PM peak hour conditions. As shown in the table below, all study area intersections are projected to operate with overall acceptable levels of service under the Weekday AM and PM peak hour conditions.

The intersection of Bank Street and Sunnyside Avenue is projected to continue to operate with specific movements at or close to theoretical capacity.

The eastbound approach at intersection of Bank Street and Wilton Crescent is projected to continue to operate with a LOS E due to vehicle delays during the PM peak hour. The delays are associated with limited gaps in traffic in the southbound direction associated with the recently installed 3-lane cross-section of Bank Street.

No mitigation measures are recommended to improve intersection operations.

Table 4.15: 2033 Future Background Weekday AM and PM Peak LOS Summary

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				AM	PM	AM	PM	AM	PM	AM	PM
Bank St & Fifth Ave	Signalized	EB	L / Th / R	A	B	0.38	0.67	22.5	35.9	28.9	33.2
		WB	L	A	A	0.20	0.41	23.2	33.0	14.8	17.9
			Th / R	A	A	0.22	0.30	15.9	17.2	16.8	14.6
		NB	L / Th / R	A	A	0.41	0.31	6.5	5.5	16.4	24.5
		SB	L / Th / R	A	A	0.35	0.40	8.7	6.9	27.7	39.5
		Overall Intersection		**A**	**B**	**0.41**	**0.67**	**10.00**	**11.00**	**--**	**--**
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	A	A	0.48	0.56	37.7	38.8	23.5	27.8
		NB	L / Th / R	A	A	0.31	0.33	4.4	5.1	26.7	29.4
		SB	L / Th / R	A	A	0.22	0.35	3.2	3.2	14.5	16.3
		Overall Intersection		**A**	**A**	**0.48**	**0.56**	**6.40**	**6.80**	**--**	**--**
Bank St & Exhibition Way	Signalized	WB	L	A	A	0.22	0.56	23.0	39.0	14.0	34.3
			Right	A	A	0.16	0.30	9.8	10.9	6.3	9.9
		NB	L / Th / R	A	A	0.32	0.37	4.8	6.2	25.8	32.2
		SB	L	A	A	0.18	0.35	6.4	9.6	9.0	20.7
			Th	A	A	0.17	0.27	4.3	6.0	14.2	27.0
		Overall Intersection		**A**	**A**	**0.32**	**0.56**	**5.80**	**9.50**	**--**	**--**
Bank St & Wilton Cr	Minor Stop	EB	R	C	E	0.54	0.93	24.4	76.7	18.6	52.8
		NB	L	B	B	0.21	0.40	11.0	14.8	4.8	11.4
			Th	A	A	-	-	2.0	4.1	-	-
		Overall Intersection		**A**	**B**	**0.54**	**0.54**	**5.50**	**14.50**	**-**	**-**
Bank St & Echo Dr	Minor Stop	EB	R	B	C	0.06	0.1	13	20.5	1.2	1.8
		Overall Intersection		**B**	**C**	**0.06**	**0.10**	**13.00**	**20.50**	**-**	**-**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				AM	PM	AM	PM	AM	PM	AM	PM
Bank St & Aylmer Ave	Signalized	EB	L / R	A	A	0.39	0.38	34.1	31.60	22.40	24.50
		NB	L / Th	A	A	0.36	0.42	5.2	4.80	m42.7	m21.2
		SB	Th / R	A	A	0.29	0.49	3.7	8.10	22.80	49.80
		Overall Intersection		**A**	**A**	**0.39**	**0.49**	**6.10**	**7.80**	**--**	**--**
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	B	C	0.65	0.72	38.3	47.9	37.40	#60.1
		WB	L / Th / R	D	E	0.88	0.98	33.7	64.6	#76.1	#107.2
		NB	L / Th / R	B	A	0.68	0.31	15.1	9.4	89.00	30.00
		SB	L / Th / R	F	E	1.20dl	0.95	31.8	30.2	#84.0	#148.4
		Overall Intersection		**D**	**E**	**0.88**	**0.98**	**24.60**	**32.80**	**--**	**--**
QED & Princess Patricia Way	Minor Stop	NB	L / Th	A	A	0.06	0.06	8.3	9.0	1.2	1.2
		EB	L / R	B	C	0.11	0.36	13.6	21.5	1.8	9.6
		Overall Intersection		**A**	**A**	**0.11**	**0.36**	**1.60**	**2.80**	**-**	**-**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	A	A	0.23	0.38	17.8	36.8	13.4	22.8
		NB	L / Th	A	A	0.34	0.26	7.9	5.2	23.2	23.3
		SB	Th / R	A	A	0.44	0.56	8.9	8.2	32.7	73.1
		Overall Intersection		**A**	**A**	**0.44**	**0.56**	**9.40**	**9.70**	**--**	**--**
Bank St & Marche Way	Minor Stop	WB	L / R	B	B	0.08	0.17	12.9	13.7	1.8	3.6
		Overall Intersection		**B**	**A**	**0.08**	**0.17**	**12.90**	**0.90**	**--**	**--**
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	A	A	0.16	0.17	8.5	8.6	1.8	0.6
		WB	R	A	A	0.09	0.13	7.3	7.6	3.6	0.4
		NB	L / Th / R	A	A	0.11	0.14	7.9	8.2	1.8	0.5
		SB	R	A	A	0.13	0.12	7.5	7.6	3.0	0.4
		Overall Intersection		**A**	**A**	**0.16**	**--**	**7.8**	**8.0**	**--**	**--**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				AM	PM	AM	PM	AM	PM	AM	PM
Garage Access at Exhibition Way	Two-Way Stop	WB	Th/L	A	A	0.01	0.01	8.2	8.4	0.0	0.0
		NB	L / R	B	B	0.06	0.14	13.1	15.8	1.2	3.0
		Overall Intersection		**A**	**A**	**0.06**	**0.14**	**1.3**	**1.8**	**--**	**--**
Exhibition Way and Service Roadway	All-Way Stop	EB	L / Th	A	A	0.14	0.17	7.7	7.9	3.0	3.6
		WB	Th / R	A	A	0.09	0.19	7.4	8.0	1.8	4.2
		SB	L / R	A	A	0.01	0.01	7.2	7.5	0.0	0.0
		Overall Intersection		**A**	**A**	**0.14**	**0.19**	**7.6**	**7.9**	**--**	**--**
Marché Way and Service Roadway	All-Way Stop	EB	L / Th	A	A	0.01	0.01	6.7	6.6	**0.0**	**0.0**
		WB	L / Th	A	A	0.16	0.01	7.7	7.1	**0.0**	**0.0**
		NB	L / R	A	A	0.01	0.01	7.1	6.8	**3.6**	**0.0**
		Overall Intersection		**A**	**A**	**0.16**	**0.01**	**7.6**	**6.9**	**-**	**-**
Marché Way and Exhibition Way	All-Way Stop	EB	Th / R	A	A	0.01	0.01	7.0	7.1	0.0	0.0
		WB	L / Th	A	A	0.17	0.2	8.2	8.6	3.6	4.8
		NB	L / R	A	A	0.15	0.15	7.9	7.5	3.0	3.0
		Overall Intersection		**A**	**A**	**0.17**	**0.2**	**8.0**	**8.1**	**-**	**-**
Garage Access at Princess Patricia Way	Two-Way Stop	EB	L	A	A	--	--	7.5	7.5	--	--
			Th	A	A	--	--	0.0	0.0	--	--
		SB	L / R	A	A	0.01	0.01	9.4	9.6	0	1.2
		Overall Intersection		**A**	**A**	**0.01**	**0.01**	**0.6**	**2.5**	**--**	**--**

L - Left, **Th** - Through, **R** - Right

2033 Future Background Saturday Peak Hour

Table 4.16 summarize intersection performance under 2033 Future Background Saturday Peak Hour conditions.

As illustrated below, all study area intersections are projected to continue to operate with overall acceptable levels of service under the 2033 Future Background Saturday peak hour conditions.

No mitigation measures are recommended to improve intersection operations.

Table 4.16: 2033 Future Background Saturday Peak Hour LOS Summary

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Total Delay (s)	Queue 95th (m)
Bank St & Fifth Ave	Signalized	EB	L / Th / R	B	0.65	35.0	29.3
		WB	L	A	0.48	37.0	20.2
			Th / R	A	0.40	18.0	17.3
		NB	L / Th / R	A	0.31	4.9	23.4
		SB	L / Th / R	A	0.34	5.9	31.8
		Overall Intersection		**B**	**0.65**	**10.5**	**--**
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	A	0.56	38.9	27.7
		NB	L / Th / R	A	0.32	2.3	9.0
		SB	L / Th / R	A	0.34	3.4	17.2
		Overall Intersection		**A**	**0.56**	**5.7**	**--**
Bank St & Exhibition Way	Signalized	WB	L	A	0.43	34.6	25.1
			Right	A	0.34	11.6	10.5
		NB	L / Th / R	A	0.31	4.9	26.1
		SB	L	A	0.32	5.7	9.5
			Th	A	0.23	3.4	13.4
		Overall Intersection		**A**	**0.43**	**6.7**	**--**
Bank St & Wilton Cr	Minor Stop	EB	R	D	0.65	36.1	25.8
		NB	L	A	--	2.1	--
			Th	B	0.21	12.1	4.8
		Overall Intersection		**A**	**0.65**	**6.4**	**--**
Bank St & Echo Dr	Minor Stop	EB	R	B	0.09	15.2	1.8
		Overall Intersection		**A**	**0.09**	**0.4**	**--**
Bank St & Aylmer Ave	Signalized	EB	L / R	A	0.24	30.0	17.3
		NB	L / Th	A	0.40	5.2	26.2
		SB	Th / R	A	0.43	7.5	42.3
		Overall Intersection		**A**	**0.43**	**7.2**	**--**

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Total Delay (s)	Queue 95th (m)
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	B	0.62	45.3	#43.9
		WB	L / Th / R	B	0.65	33.3	#45.9
		NB	L / Th / R	A	0.35	7.4	30.5
		SB	L / Th / R	A	0.50	6.9	21.6
		Overall Intersection		**B**	**0.65**	**13.2**	**--**
QED & Princess Patricia Way	Minor Stop	NB	L / Th	A	0.06	8.4	1.2
		EB	L / R	B	0.31	16.1	7.8
		Overall Intersection		**A**	**0.31**	**3.2**	**--**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	A	0.43	37.5	26.1
		NB	L / Th	A	0.30	5.7	29.9
		SB	Th / R	A	0.39	6.3	44.1
		Overall Intersection		**A**	**0.43**	**9.5**	**--**
Bank St & Marche Way	Minor Stop	WB	L / R	B	0.16	13.4	3.6
		Overall Intersection		**A**	**0.16**	**0.9**	**--**
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	A	0.13	8.5	2.4
		WB	R	A	0.12	7.6	2.4
		NB	L / Th / R	A	0.19	8.5	4.2
		SB	R	A	0.13	7.6	3.0
		Overall Intersection		**A**	**0.19**	**8.1**	**--**
Garage Access at Exhibition Way	Two-Way Stop	WB	Th / L	A	0.01	8.4	0.0
		NB	L / R	B	0.20	15.8	4.8
		Overall Intersection		**A**	**0.20**	**3.0**	**--**
Exhibition Way and Service Roadway	All-Way Stop	EB	L / Th	A	0.16	7.8	3.6
		WB	Th / R	A	0.12	7.6	4.2
		SB	L / R	A	0.01	7.3	0.0
		Overall Intersection		**A**	**0.12**	**7.7**	**--**
Marché Way and Service Roadway	All-Way Stop	EB	L / Th	A	0.03	7.0	0.6
		WB	L / Th	A	0.10	7.4	3.6
		NB	L / R	A	0.01	7.0	0.0
		Overall Intersection		**A**	**0.10**	**7.3**	**--**
Marché Way and Exhibition Way	All-Way Stop	EB	Th / R	A	0.03	7.4	0.6
		WB	L / Th	A	0.13	8.1	2.4
		NB	L / R	A	0.17	8.2	3.6
		Overall Intersection		**A**	**0.17**	**8.1**	**--**
Garage Access at Princess Patricia Way	Two-Way Stop	EB	L	A	0.00	7.7	0.0
			Th	A	--	0.0	--
		SB	L / R	B	0.14	10.3	3.0
		Overall Intersection		**A**	**0.14**	**3.3**	**--**

2033 Future Background Sunday Peak Hour

Table 4.17 summarize intersection performance under 2033 Future Background Sunday Peak Hour conditions.

As illustrated below, all study area intersections are projected to continue to operate with overall acceptable levels of service under the 2033 Future Background Sunday peak hour conditions.

Table 4.17: 2033 Future Background Sunday Peak Hour LOS Summary

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Total Delay (s)	Queue 95th (m)
Bank St & Fifth Ave	Signalized	EB	L / Th / R	A	0.55	30.6	27.4
		WB	L	B	0.67	43.3	32.3
			Th / R	A	0.38	20.4	20.9
		NB	L / Th / R	A	0.32	8.0	54.0
		SB	L / Th / R	A	0.36	6.9	33.6
		Overall Intersection		**B**	**0.67**	**13.3**	**--**
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	A	0.55	38.6	27.3
		NB	L / Th / R	A	0.37	7.5	54.2
		SB	L / Th / R	A	0.33	8.9	48.9
		Overall Intersection		**A**	**0.55**	**10.5**	**--**
Bank St & Exhibition Way	Signalized	WB	L	A	0.56	36.6	32.4
			Right	A	0.29	9.8	9.3
		NB	L / Th / R	A	0.40	12.2	42.2
		SB	L	A	0.47	15.0	29.1
			Th	A	0.22	5.9	28.5
		Overall Intersection		**A**	**0.56**	**12.6**	**--**
Bank St & Wilton Cr	Minor Stop	EB	R	C	0.54	29.0	18.6
		NB	L	A	--	1.9	--
			Th	B	0.19	11.8	4.2
		Overall Intersection		**A**	**0.54**	**5.1**	**--**
Bank St & Echo Dr	Minor Stop	EB	R	B	0.24	19.1	5.4
		Overall Intersection		**A**	**0.24**	**1.0**	**--**
Bank St & Aylmer Ave	Signalized	EB	L / R	A	0.43	35.9	23.2
		NB	L / Th	A	0.29	8.5	60.4
		SB	Th / R	A	0.33	3.7	29.5
		Overall Intersection		**A**	**0.43**	**7.5**	**--**

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Total Delay (s)	Queue 95th (m)
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	C	0.78	66.7	35.2
		WB	L / Th / R	C	0.71	33.7	37.4
		NB	L / Th / R	A	0.40	17.2	50.4
		SB	L / Th / R	A	0.53	14.0	68.7
		Overall Intersection		**C**	**0.78**	**21.1**	**--**
QED & Princess Patricia Way	Minor Stop	NB	L / Th	A	0.06	7.6	1.2
		EB	L / R	B	0.34	12.2	9.0
		Overall Intersection		**A**	**0.34**	**5.9**	**--**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	A	0.60	36.9	36.0
		NB	L / Th	A	0.31	7.9	29.8
		SB	Th / R	A	0.04	5.9	6.0
		Overall Intersection		**A**	**0.60**	**18.2**	**--**
Bank St & Marche Way	Minor Stop	WB	L / R	B	0.35	15.4	9.0
		Overall Intersection		**A**	**0.35**	**2.1**	**--**
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	B	0.25	10.2	6.0
		WB	R	A	0.33	9.7	8.4
		NB	L / Th / R	B	0.36	10.9	9.6
		SB	R	A	0.16	8.7	3.6
		Overall Intersection		**A**	**0.36**	**10.0**	**--**
Garage Access at Exhibition Way	Two-Way Stop	WB	Th / L	A	0.01	8.6	0.0
		NB	L / R	B	0.27	17.7	6.6
		Overall Intersection		**A**	**0.27**	**3.3**	**--**
Exhibition Way and Service Roadway	All-Way Stop	EB	L / Th	A	0.19	8.0	4.2
		WB	Th / R	A	0.14	7.7	3.0
		SB	L / R	A	0.01	7.4	0.0
		Overall Intersection		**A**	**0.19**	**7.9**	**--**
Marché Way and Service Roadway	All-Way Stop	EB	L / Th	A	0.02	7.1	0.6
		WB	L / Th	A	0.21	8.0	4.8
		NB	L / R	A	0.01	7.2	0.0
		Overall Intersection		**A**	**0.21**	**7.9**	**--**
Marché Way and Exhibition Way	All-Way Stop	EB	Th / R	A	0.03	7.4	0.6
		WB	L / Th	A	0.08	7.9	1.8
		NB	L / R	A	0.20	8.2	4.2
		Overall Intersection		**A**	**0.20**	**8.1**	**--**
Garage Access at Princess Patricia Way	Two-Way Stop	EB	L	A	0.00	7.5	0.0
			Th	A	--	0.0	--
		SB	L / R	B	0.24	10.8	6.0
		Overall Intersection		**A**	**0.24**	**5.4**	**--**

2033 Future Background Minor Event (Event Centre)

Table 4.18 summarize intersection performance during ingress and egress for a Minor Event held at Lansdowne under 2033 future background conditions. As summarized in the table below, all study area intersections are projected to operate with overall acceptable levels of service during the ingress and egress period for minor events held at the new Event Centre.

The eastbound approach at intersection of Bank Street and Wilton Crescent is expected to continue to operate with a LOS E during the ingress period. This occurs during the event Ingress period which overlaps with the regular PM peak period. The delays at this intersection are not directly attributed to event traffic held at Lansdowne and are associated with limited gaps in traffic in the southbound direction associated with the recently installed 3-lane cross-section of Bank Street.

No mitigation measures are recommended to improve intersection operations.

Table 4.18: 2033 Future Background Minor Event (Event Centre) LOS Summary

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Bank St & Fifth Ave	Signalized	EB	L / Th / R	B	A	0.67	0.52	37.4	32.1	33.9	19.6
		WB	L	A	A	0.44	0.36	33.2	35.0	19.6	16.3
			Th / R	A	A	0.39	0.31	16.1	19.3	17.8	12.9
		NB	L / Th / R	A	A	0.32	0.24	5.8	3.6	26.6	19.0
		SB	L / Th / R	A	A	0.37	0.21	6.8	3.7	36.3	16.6
		Overall Intersection		**B**	**A**	**0.67**	**0.52**	**11.3**	**8.0**	**--**	**--**
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	A	A	0.55	0.48	38.2	37.9	28.8	23.3
		NB	L / Th / R	A	A	0.38	0.29	5.4	4.3	32.7	23.4
		SB	L / Th / R	A	A	0.33	0.21	3.1	2.8	15.8	11.7
		Overall Intersection		**A**	**A**	**0.55**	**0.48**	**6.9**	**6.4**	**--**	**--**
Bank St & Exhibition Way	Signalized	WB	L	A	B	0.52	0.66	38.3	39.7	32.8	46.3
			Right	A	A	0.38	0.59	11.3	10.2	11.7	17.1
		NB	L / Th / R	A	A	0.36	0.17	5.3	4.8	28.2	12.9
		SB	L	A	A	0.46	0.25	11.2	8.9	30.1	18.6
			Th	A	A	0.22	0.15	5.4	6.5	21.4	15.9
		Overall Intersection		**A**	**B**	**0.52**	**0.66**	**9.1**	**13.0**	**--**	**--**
Bank St & Wilton Cr	Minor Stop	EB	R	E	B	0.92	0.34	67.5	19.5	55.2	9.0
		NB	L	B	B	0.24	0.08	12.1	10.4	5.4	1.2
			Th	A	A	--	--	2.5	0.6	--	--
		Overall Intersection		**B**	**A**	**0.92**	**0.34**	**13.7**	**3.2**	**--**	**--**
Bank St & Echo Dr	Minor Stop	EB	R	B	B	0.12	0.02	16.5	10.4	2.4	0.6
		Overall Intersection		**A**	**A**	**0.12**	**0.02**	**0.4**	**0.2**	**--**	**--**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Bank St & Aylmer Ave	Signalized	EB	L / R	A	A	0.36	0.03	36.7	27.2	27.1	4.4
		NB	L / Th	A	A	0.40	0.09	5.3	4.6	24.0	6.6
		SB	Th / R	A	A	0.34	0.10	6.5	5.2	29.9	9.7
		Overall Intersection		**A**	**A**	**0.40**	**0.10**	**7.7**	**5.3**	**--**	**--**
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	B	A	0.69	0.51	47.4	50.3	#45.4	21.5
		WB	L / Th / R	C	A	0.76	0.34	32.9	22.0	#59.8	13.1
		NB	L / Th / R	A	A	0.32	0.13	8.8	3.5	33.1	11.8
		SB	L / Th / R	A	A	0.58	0.26	8.6	2.6	61.5	12.7
		Overall Intersection		**C**	**A**	**0.76**	**0.51**	**15.6**	**7.2**	**--**	**--**
QED & Princess Patricia Way	Minor Stop	NB	L / Th	A	A	0.13	0.01	9.3	7.7	2.4	0.0
		EB	L / R	C	B	0.38	0.60	22.9	16.4	10.2	24.6
		Overall Intersection		**A**	**B**	**0.38**	**0.60**	**3.5**	**10.4**	**--**	**--**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	A	A	0.45	0.46	37.8	37.8	27.0	28.0
		NB	L / Th	A	A	0.33	0.30	6.1	5.7	30.5	31.1
		SB	Th / R	A	A	0.60	0.19	9.3	5.0	85.2	19.2
		Overall Intersection		**A**	**A**	**0.60**	**0.46**	**11.0**	**10.7**	**--**	**--**
Bank St & Marche Way	Minor Stop	WB	L / R	B	B	0.11	0.27	12.5	13.5	2.4	6.6
		Overall Intersection		**A**	**A**	**0.11**	**0.27**	**0.6**	**2.1**	**--**	**--**
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	A	A	0.17	0.08	8.8	7.8	3.6	1.2
		WB	R	A	A	0.18	0.08	8.0	7.1	3.6	1.8
		NB	L / Th / R	A	A	0.20	0.09	8.8	7.3	4.2	1.8
		SB	R	A	A	0.11	0.11	7.7	7.2	2.4	2.4
		Overall Intersection		**A**	**A**	**0.20**	**0.11**	**8.4**	**7.3**	**--**	**--**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Garage Access at Exhibition Way	Two-Way Stop	WB	Th / L	A	C	0.01	--	8.8	24.7	0.0	12.2
		NB	L / R	B	A	0.30	0.44	19.8	0.0	7.2	0.0
		Overall Intersection		**A**	**A**	**0.30**	**0.44**	**3.3**	**5.2**	**--**	**--**
Exhibition Way and Service Roadway	All-Way Stop	EB	L / Th	A	A	0.31	0.29	9.4	9.7	7.8	7.2
		WB	Th / R	A	A	0.00	0.00	7.5	7.9	0.0	0.0
		SB	L / R	A	A	0.15	0.34	7.6	8.9	3.0	9.0
		Overall Intersection		**A**	**A**	**0.31**	**0.34**	**8.8**	**9.2**	**--**	**--**
Marché Way and Service Roadway	All-Way Stop	EB	L / Th	A	A	0.03	0.04	7.6	7.4	0.6	0.6
		WB	L / Th	A	A	0.23	0.11	9.0	8.1	5.4	2.4
		NB	L / R	A	A	0.30	0.24	9.0	8.3	7.2	5.4
		Overall Intersection		**A**	**A**	**0.30**	**0.24**	**8.9**	**8.2**	**--**	**--**
Marché Way and Exhibition Way	All-Way Stop	EB	Th / R	A	A	0.04	0.09	7.3	7.4	0.6	1.8
		WB	L / Th	A	A	0.20	0.10	7.9	7.4	4.2	1.8
		NB	L / R	A	A	0.00	0.00	7.4	7.3	0.0	0.0
		Overall Intersection		**A**	**A**	**0.20**	**0.10**	**7.8**	**7.4**	**--**	**--**
Garage Access at Princess Patricia Way	Two-Way Stop	EB	L	A	A	0.01	0.00	8.1	7.4	0.0	0.0
			Th	A	A	--	--	0.0	0.0	--	--
		SB	L / R	B	B	0.15	0.47	11.3	13.2	3.0	15.6
		Overall Intersection		**A**	**A**	**0.15**	**0.47**	**2.2**	**9.3**	**--**	**--**

L - Left, **Th** - Through, **R** - Right

2033 Future Background Major Event (Stadium)

Table 4.19 summarize intersection performance during ingress and egress for a Major Event held at Lansdowne under 2033 future background conditions. As illustrated below, all study area intersections are projected to continue to operate with overall acceptable levels of service during Major Events held at the Stadium at Lansdowne.

The eastbound approach at intersection of Bank Street and Wilton Crescent is projected to continue to operate at or close to capacity with a LOS F. This occurs during the event Ingress period which overlaps with the regular PM peak period. The delays at this intersection are not directly attributed to event traffic held at Lansdowne and are associated with limited gaps in traffic in the southbound direction associated with the recently installed 3-lane cross-section of Bank Street.

In addition, the eastbound approach of the Queen Elizabeth Drive and Princess Patricia Way intersection is shown to operate with an LOS rating of E for the Ingress period. Although the analysis indicates that the movements are operating with delays, the performance of this intersection is adequately managed through the deployment of Ottawa Police Point duty as part of the traffic management measures for Major Events at Lansdowne.

No mitigation measures are recommended to improve intersection operations.

Table 4.19: 2033 Future Background Major Event (Stadium) LOS Summary

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Bank St & Fifth Ave	Signalized	EB	L / Th / R	B	D	0.70	0.81	38.7	54.3	36.2	39.5
		WB	L	A	A	0.45	0.22	32.9	25.5	20.9	12.7
			Th / R	A	A	0.42	0.58	18.4	19.7	21.3	29.4
		NB	L / Th / R	A	A	0.33	0.23	7.3	5.2	34.9	16.9
		SB	L / Th / R	A	A	0.44	0.25	7.7	6.3	44.5	22.3
		Overall Intersection		**B**	**D**	**0.70**	**0.81**	**12.5**	**14.6**	**-**	**-**
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	B	B	0.62	0.62	38.5	38.9	35.3	34.2
		NB	L / Th / R	A	A	0.51	0.26	7.7	5.3	43.1	19
		SB	L / Th / R	A	A	0.44	0.24	4.3	3.2	17.9	9.2
		Overall Intersection		**B**	**B**	**0.62**	**0.62**	**9**	**9.5**	**-**	**-**
Bank St & Exhibition Way	Signalized	WB	L	*Movements Temporarily Restricted During Major Events*							
			Right								
		NB	L / Th / R	A	A	0.33	0.14	4.4	1.3	28.7	13.1
		SB	L	*Movements Temporarily Restricted During Major Events*							
			Th	A	A	0.27	0.13	4.2	1.3	23.4	12.6
		Overall Intersection		**A**	**A**	**0.33**	**0.14**	**5.6**	**1.4**	**-**	**-**
Bank St & Wilton Cr	Minor Stop	EB	R	F	B	1.07	0.01	111	13.4	72.6	0
		NB	L	B	A	0.20	--	12.5	0	4.8	0
			Th	A	A	--	--	2.5	--	--	--
		Overall Intersection		**B**	**A**	**1.07**	**0.01**	**19.6**	**0.1**	**--**	**--**
Bank St & Echo Dr	Minor Stop	EB	R	B	B	0.25	0.05	19	10.4	6	1.2
		Overall Intersection		**A**	**A**	**0.25**	**0.05**	**0.9**	**0.5**	**--**	**--**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Bank St & Aylmer Ave	Signalized	EB	L / R	A	A	0.52	0.17	38.8	23.5	35.4	11.9
		NB	L / Th	A	A	0.43	0.20	5.6	4.9	25.8	13.8
		SB	Th / R	A	A	0.45	0.18	8.2	5.5	50.5	15.3
		Overall Intersection		**A**	**A**	**0.52**	**0.20**	**9.1**	**6.1**	**-**	**-**
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	B	A	0.66	0.60	42	51.2	57.3	28.9
		WB	L / Th / R	C	A	0.75	0.51	35.6	31.5	71.9	23.7
		NB	L / Th / R	A	A	0.40	0.15	10.3	4.2	39.1	15.2
		SB	L / Th / R	C	A	0.79	0.19	14.3	1.4	94.7	3.6
		Overall Intersection		**C**	**A**	**0.79**	**0.60**	**18.5**	**10.7**	**-**	**-**
QED & Princess Patricia Way	Minor Stop	NB	L / Th	A	A	0.14	0.05	10	8.2	3	0.6
		EB	L / R	E	D	0.81	0.89	58.8	43	37.8	61.8
		Overall Intersection		**A**	**C**	**0.81**	**0.89**	**9.7**	**20.4**	**--**	**--**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	B	B	0.67	0.68	40	39.1	46.2	49.9
		NB	L / Th	B	A	0.61	0.40	14.9	9.7	69.2	50.7
		SB	Th / R	D	A	0.82	0.39	20.6	9.5	191.7	52.4
		Overall Intersection		**D**	**B**	**0.82**	**0.68**	**21.8**	**16.2**	**-**	**-**
Bank St & Marche Way	Minor Stop	WB	L / R	*Movements Temporarily Restricted During Major Events*							
		Overall Intersection									
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	A	A	0.20	0.12	9.5	8.9	4.2	2.4
		WB	R	A	A	0.26	0.15	9	8.3	6	3
		NB	L / Th / R	A	B	0.31	0.48	9.8	11.2	7.8	15.6
		SB	R	A	A	0.18	0.07	8.5	7.6	3.6	1.2
		Overall Intersection		**A**	**B**	**0.31**	**0.48**	**9.3**	**10.1**	**--**	**--**

2033 Total Future Conditions

Intersection operational analysis under 2033 Total Future Conditions is summarized in this section.

This horizon year represents the full build-out of Lansdowne 2.0, whereby the new event centre is complete and open, the new north stadium stands are completed (Phase 2), and the podium retail and two residential towers are completed (Phase 3).

2033 Total Future Weekday AM and PM Peak

Table 4.20 summarize intersection performance under 2033 Total Future Weekday AM and PM peak hour conditions. As shown in the table below, all study area intersections are projected to operate with overall acceptable levels of service under the Weekday AM and PM peak hour conditions.

Access intersections to Lansdowne at Bank Street and Queen Elizabeth Driveway are projected to continue to operate with acceptable levels of service.

In addition, projected 95th percentile vehicle queues are shown to be accommodated within the storage capacity of auxiliary turning lanes at site access intersections, including the southbound left-turn and westbound turning lanes at the intersection of Bank Street and Exhibition Way.

The intersection of Bank Street and Sunnyside Avenue is projected to continue to operate with specific movements at or close to theoretical capacity.

The eastbound approach at intersection of Bank Street and Wilton Crescent is projected to operate with a LOS F due to vehicle delays during the PM peak hour. The delays are associated with limited gaps in traffic in the southbound direction associated with the recently installed 3-lane cross-section of Bank Street.

No mitigation measures are recommended to improve intersection operations at this time. Close monitoring of

Table 4.20: 2033 Total Future Weekday AM and PM Peak LOS Summary

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				AM	PM	AM	PM	AM	PM	AM	PM
Bank St & Fifth Ave	Signalized	EB	L / Th / R	A	B	0.38	0.67	22.5	35.8	28.9	33.2
		WB	L	A	A	0.20	0.41	23.2	33	14.8	17.9
			Th / R	A	A	0.24	0.31	14.9	16.7	17.3	14.9
		NB	L / Th / R	A	A	0.43	0.31	6.6	5.6	17.1	25.2
		SB	L / Th / R	A	A	0.35	0.42	8.8	7.1	28.4	41.5
		Overall Intersection		**A**	**B**	**0.43**	**0.67**	**10**	**11**		
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	A	A	0.48	0.56	37.7	38.8	23.5	27.8
		NB	L / Th / R	A	A	0.33	0.35	4.5	5.2	28.8	30.5
		SB	L / Th / R	A	A	0.23	0.37	3.2	3.2	15.2	16.5
		Overall Intersection		**A**	**A**	**0.48**	**0.56**	**6.4**	**6.8**		
Bank St & Exhibition Way	Signalized	WB	L	A	A	0.35	0.59	24.2	39.3	19.8	36.9
			Right	A	A	0.22	0.32	8.7	10.3	7.4	10.1
		NB	L / Th / R	A	A	0.37	0.39	6.3	6.6	30	35.3
		SB	L	A	A	0.23	0.43	8.3	12	11.6	28.1
			Th	A	A	0.19	0.27	5.6	6.4	16.2	28.2
		Overall Intersection		**A**	**A**	**0.37**	**0.59**	**7.7**	**10.2**		
Bank St & Wilton Cr	Minor Stop	EB	R	C	F	0.57	0.95	26.7	82.1	3.4	9.2
		NB	L	B	B	0.22	0.41	11.3	15.1	0.8	2
			Th	A	A	--	--	2.2	4.3	--	--
		Overall Intersection		**A**	**B**	**0.58**	**0.95**	**5.7**	**15.1**	**--**	**--**
Bank St & Echo Dr	Minor Stop	EB	R	B	C	0.07	0.11	13.5	20.9	2.4	3.5
		Overall Intersection		**A**	**A**	**0.07**	**0.11**	**0.3**	**0.3**	**--**	**--**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				AM	PM	AM	PM	AM	PM	AM	PM
Bank St & Aylmer Ave	Signalized	EB	L / R	A	A	0.39	0.38	34.1	31.6	22.4	24.5
		NB	L / Th	A	A	0.37	0.44	5.2	5	m43.3	m22.2
		SB	Th / R	A	A	0.30	0.50	3.7	8.2	24.5	51
		Overall Intersection		**A**	**A**	**0.39**	**0.50**	**6**	**7.9**		
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	B	C	0.65	0.72	38.3	47.9	37.4	#60.1
		WB	L / Th / R	D	E	0.88	0.98	33.7	64.6	#76.1	#107.2
		NB	L / Th / R	B	A	0.69	0.33	15.4	9.5	91	32
		SB	L / Th / R	F	E	1.22dl	0.97	34.4	34.6	#91.1	#153.3
		Overall Intersection		**D**	**E**	**0.88**	**0.98**	**25.5**	**34.8**		
QED & Princess Patricia Way	Minor Stop	NB	L / Th	A	A	0.07	0.07	8.3	9.1	1.7	1.8
		EB	L / R	B	C	0.21	0.43	15	24.3	5.7	16.2
		Overall Intersection		**A**	**A**	**0.21**	**0.43**	**2.4**	**3.5**	**--**	**--**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	A	A	0.25	0.40	18.1	37	14.9	23.8
		NB	L / Th	A	A	0.36	0.27	8.2	5.3	25.7	24.2
		SB	Th / R	A	A	0.45	0.58	9.1	8.5	33.9	76.6
		Overall Intersection		**A**	**A**	**0.45**	**0.58**	**9.7**	**9.9**		
Bank St & Marche Way	Minor Stop	WB	L / R	B	B	0.12	0.19	13.5	14.1	2.1	5.4
		Overall Intersection		**A**	**A**	**0.12**	**0.19**	**0.7**	**1**	**--**	**--**
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	A	A	0.16	0.17	8.5	8.6	--	--
		WB	R	A	A	0.09	0.13	7.4	7.6	--	--
		NB	L / Th / R	A	A	0.13	0.15	8	8.3	--	--
		SB	R	A	A	0.13	0.12	7.5	7.6	--	--
		Overall Intersection		**A**	**A**	**0.16**	**0.17**	**7.9**	**8**	**--**	**--**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				AM	PM	AM	PM	AM	PM	AM	PM
Garage Access at Exhibition Way	Two-Way Stop	WB	Th/L	A	A	0.01	0.01	8.2	8.6	0	0
		NB	L / R	B	B	0.21	0.21	14.9	17.2	4.8	4.8
		Overall Intersection		**A**	**A**	**0.21**	**0.21**	**3.8**	**2.4**	**--**	**--**
Exhibition Way and Service Roadway	All-Way Stop	EB	L / Th	A	A	0.16	0.18	7.8	8	**3.6**	**3.6**
		WB	Th / R	A	A	0.09	0.19	7.5	8	**1.8**	**4.2**
		SB	L / R	A	A	0.01	0.01	7.3	7.5	**0**	**0**
		Overall Intersection		**A**	**A**	**0.16**	**0.19**	**7.7**	**8**	**--**	**--**
Marché Way and Service Roadway	All-Way Stop	EB	L / Th	A	A	0.01	0.01	6.8	6.7	**0**	**0**
		WB	L / Th	A	A	0.18	0.02	7.8	7.1	**3.6**	**0.6**
		NB	L / R	A	A	0.02	0.02	7.3	6.9	**0.6**	**0.6**
		Overall Intersection		**A**	**A**	**0.18**	**0.02**	**7.7**	**6.9**	**--**	**--**
Marché Way and Exhibition Way	All-Way Stop	EB	Th / R	A	A	0.01	0.01	7.1	7.2	**0**	**0**
		WB	L / Th	A	A	0.18	0.21	8.3	8.6	**3.6**	**4.8**
		NB	L / R	A	A	0.16	0.16	8	7.5	**3.6**	**3.6**
		Overall Intersection		**A**	**A**	**0.18**	**0.21**	**8.1**	**8.1**	**--**	**--**
Garage Access at Princess Patricia Way	Two-Way Stop	EB	L	A	A	0.00	0.00	7.6	7.5	0	0
			Th	A	A	--	--	0	0	--	--
		SB	L / R	A	A	0.07	0.09	9.9	9.8	1.2	1.8
		Overall Intersection		**A**	**A**	**0.07**	**0.09**	**2.2**	**2.5**	**--**	**--**

L - Left, **Th** - Through, **R** - Right

2033 Total Future Saturday Peak Hour

Table 4.21 summarize intersection performance under 2033 Total Future Saturday Peak Hour conditions.

As illustrated below, all study area intersections are projected to continue to operate with overall acceptable levels of service under the 2033 Total Future Saturday peak hour conditions.

Access intersections to Lansdowne at Bank Street and Queen Elizabeth Driveway are projected to continue to operate with acceptable levels of service.

In addition, projected 95th percentile vehicle queues are shown to be accommodated within the storage capacity of auxiliary turning lanes at site access intersections, including the southbound left-turn and westbound turning lanes at the intersection of Bank Street and Exhibition Way.

No mitigation measures are required.

Table 4.21: 2033 Total Future Saturday Peak Hour LOS Summary

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Total Delay (s)	Queue 95th (m)
Bank St & Fifth Ave	Signalized	EB	L / Th / R	B	0.65	35.1	29.3
		WB	L	A	0.48	37	20.2
			Th / R	A	0.42	17.7	17.7
		NB	L / Th / R	A	0.32	5	24.4
		SB	L / Th / R	A	0.36	6	33.9
		Overall Intersection		**B**	**0.65**	**10.5**	**--**
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	A	0.56	38.9	27.7
		NB	L / Th / R	A	0.34	2.2	10.2
		SB	L / Th / R	A	0.36	3.4	17.5
		Overall Intersection		**A**	**0.56**	**5.6**	**--**
Bank St & Exhibition Way	Signalized	WB	L	A	0.49	35.2	28.8
			Right	A	0.36	10.8	10.8
		NB	L / Th / R	A	0.34	5.3	29.2
		SB	L	A	0.40	7.4	13.2
			Th	A	0.24	3.6	13.6
		Overall Intersection		**A**	**0.49**	**7.5**	**--**
Bank St & Wilton Cr	Minor Stop	EB	R	D	0.67	38.4	27
		NB	L	B	0.21	12.3	4.8
			Th	A	--	2.3	--
		Overall Intersection		**A**	**0.67**	**6.6**	**--**

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Total Delay (s)	Queue 95th (m)
Bank St & Echo Dr	Minor Stop	EB	R	B	0.10	15.5	1.8
		Overall Intersection		**A**	**0.10**	**0.4**	**--**
Bank St & Aylmer Ave	Signalized	EB	L / R	A	0.24	30	17.3
		NB	L / Th	A	0.42	5.2	26.5
		SB	Th / R	A	0.44	7.6	43.6
		Overall Intersection		**A**	**0.44**	**7.2**	**--**
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	B	0.62	45.3	#43.9
		WB	L / Th / R	B	0.65	33.3	#45.9
		NB	L / Th / R	A	0.37	7.6	32.6
		SB	L / Th / R	A	0.52	7.1	22.2
		Overall Intersection		**B**	**0.65**	**13.1**	**--**
QED & Princess Patricia Way	Minor Stop	NB	L / Th	A	0.07	8.4	1.2
		EB	L / R	B	0.37	17.8	10.2
		Overall Intersection		**A**	**0.37**	**3.9**	**--**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	A	0.45	37.7	27.3
		NB	L / Th	A	0.32	5.9	31.9
		SB	Th / R	A	0.41	6.6	46.6
		Overall Intersection		**A**	**0.45**	**9.8**	**--**
Bank St & Marche Way	Minor Stop	WB	L / R	B	0.18	13.8	4.2
		Overall Intersection		**A**	**0.18**	**1**	**--**
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	A	0.37	9.3	10.2
		WB	R	A	0.14	8.3	3
		NB	L / Th / R	A	0.16	9	3.6
		SB	R	A	0.00	8.1	0
		Overall Intersection		**A**	**0.37**	**9**	**--**
Garage Access at Exhibition Way	Two-Way Stop	WB	Th / L	A	0.01	8.4	0
		NB	L / R	B	0.20	15.8	4.8
		Overall Intersection		**A**	**0.20**	**3**	**--**
Exhibition Way and Service Roadway	All-Way Stop	EB	L / Th	A	0.17	7.9	3.6
		WB	Th / R	A	0.12	7.6	2.4
		SB	L / R	A	0.01	7.3	0
		Overall Intersection		**A**	**0.17**	**7.8**	**--**
Marché Way and Service Roadway	All-Way Stop	EB	L / Th	A	0.03	7	0.6
		WB	L / Th	A	0.11	7.5	2.4
		NB	L / R	A	0.02	7.1	0.6
		Overall Intersection		**A**	**0.11**	**7.4**	**--**

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Total Delay (s)	Queue 95th (m)
Marché Way and Exhibition Way	All-Way Stop	EB	Th / R	A	0.03	7.4	0.6
		WB	L / Th	A	0.14	8.2	3
		NB	L / R	A	0.18	8.2	3.6
		Overall Intersection		**A**	**0.18**	**8.1**	**--**
Garage Access at Princess Patricia Way	Two-Way Stop	EB	L	A	0.00	7.7	0
			Th	A	--	0	--
		SB	L / R	B	0.14	10.3	3
		Overall Intersection		**A**	**0.14**	**3.3**	**--**

L - Left, **Th** - Through, **R** - Right

2033 Total Future Sunday Peak Hour

summarize intersection performance under 2033 Total Future Sunday Peak Hour conditions.

As illustrated below, all study area intersections are projected to continue to operate with overall acceptable levels of service under the 2033 Future Background Sunday peak hour conditions.

Access intersections to Lansdowne at Bank Street and Queen Elizabeth Driveway are projected to continue to operate with acceptable levels of service.

In addition, projected 95th percentile vehicle queues are shown to be accommodated within the storage capacity of auxiliary turning lanes at site access intersections, including the southbound left-turn and westbound turning lanes at the intersection of Bank Street and Exhibition Way.

No mitigation measures are required.

Table 4.22: 2033 Total Future Sunday Peak Hour LOS Summary

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Total Delay (s)	Queue 95th (m)
Bank St & Fifth Ave	Signalized	EB	L / Th / R	A	0.55	30.8	27.5
		WB	L	B	0.67	43.3	32.3
			Th / R	A	0.42	19.5	22.0
		NB	L / Th / R	A	0.34	8.5	55.8
		SB	L / Th / R	A	0.38	7.2	36.9
		Overall Intersection		**B**	**0.67**	**13.3**	**--**
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	A	0.55	38.6	27.3
		NB	L / Th / R	A	0.39	7.0	57.0
		SB	L / Th / R	A	0.36	9.6	54.6
		Overall Intersection		**A**	**0.55**	**10.4**	**--**
Bank St & Exhibition Way	Signalized	WB	L	B	0.61	37.0	36.6
			Right	A	0.30	9.1	9.6
		NB	L / Th / R	A	0.48	14.3	47.0
		SB	L	B	0.65	23.6	#43.7
			Th	A	0.25	7.6	30.5
		Overall Intersection		**B**	**0.65**	**15.7**	**--**
Bank St & Wilton Cr	Minor Stop	EB	R	C	0.56	30.7	3.2
		NB	L	B	0.19	12.0	0.7
			Th	A	--	2.0	--
		Overall Intersection		**A**	**0.56**	**5.2**	**--**
Bank St & Echo Dr	Minor Stop	EB	R	B	0.25	19.8	0.9
		Overall Intersection		**A**	**0.25**	**1.0**	**--**

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Total Delay (s)	Queue 95th (m)
Bank St & Aylmer Ave	Signalized	EB	L / R	A	0.43	35.9	23.2
		NB	L / Th	A	0.31	8.8	65.1
		SB	Th / R	A	0.34	3.7	30.8
		Overall Intersection		**A**	**0.43**	**7.6**	**--**
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	C	0.78	66.7	35.2
		WB	L / Th / R	C	0.71	33.7	37.4
		NB	L / Th / R	A	0.43	17.7	54.0
		SB	L / Th / R	A	0.55	14.4	71.8
		Overall Intersection		**C**	**0.78**	**21.3**	**--**
QED & Princess Patricia Way	Minor Stop	NB	L / Th	A	0.07	7.6	0.2
		EB	L / R	B	0.39	13.1	1.8
		Overall Intersection		**A**	**0.39**	**6.6**	**--**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	A	0.60	36.9	36.0
		NB	L / Th	A	0.33	8.1	31.8
		SB	Th / R	A	0.04	5.9	6.0
		Overall Intersection		**A**	**0.60**	**18.0**	**--**
Bank St & Marche Way	Minor Stop	WB	L / R	B	0.39	16.3	1.8
		Overall Intersection		**A**	**0.39**	**2.3**	**--**
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	B	0.26	10.3	1.0
		WB	R	B	0.35	10.2	1.6
		NB	L / Th / R	B	0.39	11.4	1.8
		SB	R	A	0.16	8.8	0.6
		Overall Intersection		**B**	**0.39**	**10.4**	**--**
Garage Access at Exhibition Way	Two-Way Stop	WB	Th / L	A	0.01	8.8	0.0
		NB	L / R	C	0.39	20.7	1.8
		Overall Intersection		**A**	**0.39**	**4.5**	**--**
Exhibition Way and Service Roadway	All-Way Stop	EB	L / Th	A	0.22	8.2	0.8
		WB	Th / R	A	0.14	7.8	0.5
		SB	L / R	A	0.01	7.5	0.0
		Overall Intersection		**A**	**0.22**	**8.0**	**--**
Marché Way and Service Roadway	All-Way Stop	EB	L / Th	A	0.03	7.2	0.1
		WB	L / Th	A	0.22	8.2	0.8
		NB	L / R	A	0.03	7.4	0.1
		Overall Intersection		**A**	**0.22**	**8.0**	**--**
Marché Way and Exhibition Way	All-Way Stop	EB	Th / R	A	0.04	7.5	0.1
		WB	L / Th	A	0.09	8.0	0.3
		NB	L / R	A	0.21	8.3	0.8
		Overall Intersection		**A**	**0.21**	**8.1**	**--**

Intersection	Intersection Control	Approach / Movement		LOS	V/C	Total Delay (s)	Queue 95th (m)
Garage Access at Princess Patricia Way	Two-Way Stop	EB	L	A	0.00	7.5	0.0
			Th	A	--	0.0	--
		SB	L / R	B	0.27	11.2	1.1
		Overall Intersection		**A**	**0.27**	**5.5**	**--**

L - Left, **Th** - Through, **R** - Right

2033 Total Future Minor Event (Event Centre)

Table 4.23 summarize intersection performance during ingress and egress for a Minor Event held at Lansdowne under 2033 total future conditions.

As summarized in the table below, all study area intersections are projected to operate with overall acceptable levels of service during the ingress and egress period for minor events held at the new Event Centre.

Access intersections to Lansdowne at Bank Street and Queen Elizabeth Driveway are projected to continue to operate with acceptable levels of service.

In addition, projected 95th percentile vehicle queues are shown to be accommodated within the storage capacity of auxiliary turning lanes at site access intersections, including the southbound left-turn and westbound turning lanes at the intersection of Bank Street and Exhibition Way. It is worth noting that westbound queues during egress are typically managed on-site with parking and security staff to ensure.

The eastbound approach at intersection of Bank Street and Wilton Crescent is expected to continue to operate with a LOS E during the ingress period. This occurs during the event Ingress period which overlaps with the regular PM peak period. The delays at this intersection are not directly attributed to event traffic held at Lansdowne and are associated with limited gaps in traffic in the southbound direction associated with the recently installed 3-lane cross-section of Bank Street.

No mitigation measures are recommended to improve intersection operations.

Table 4.23: 2033 Total Future Minor Event (Event Centre) LOS Summary

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Bank St & Fifth Ave	Signalized	EB	L / Th / R	B	A	0.67	0.52	37.3	32.1	33.9	19.6
		WB	L	A	A	0.43	0.36	33.0	35.0	19.6	16.3
			Th / R	A	A	0.40	0.33	15.8	19.0	18.1	13.2
		NB	L / Th / R	A	A	0.33	0.25	6.0	3.6	28.4	19.7
		SB	L / Th / R	A	A	0.38	0.22	6.9	3.8	38.4	17.8
		Overall Intersection		**B**	**A**	**0.67**	**0.52**	**11.3**	**7.9**	**-**	**-**
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	A	A	0.55	0.48	38.2	37.9	28.8	23.3
		NB	L / Th / R	A	A	0.40	0.31	5.5	4.4	34.2	24.5
		SB	L / Th / R	A	A	0.35	0.23	3.1	2.8	16.1	12.0
		Overall Intersection				**0.55**	**0.48**	**6.9**	**6.3**	**-**	**-**
Bank St & Exhibition Way	Signalized	WB	L	A	B	0.56	0.68	38.6	39.9	35.8	49.0
			Right	A	A	0.39	0.59	10.7	9.8	11.9	17.1
		NB	L / Th / R	A	A	0.38	0.19	5.6	4.9	30.8	13.8
		SB	L	A	A	0.54	0.31	14.1	10.1	40.0	23.6
			Th	A	A	0.23	0.15	5.7	6.8	22.5	16.4
		Overall Intersection		**A**	**B**	**0.56**	**0.68**	**10.0**	**13.2**	**-**	**-**
Bank St & Wilton Cr	Minor Stop	EB	R	E	B	0.94	0.34	72.4	19.8	103.7	14.2
		NB	L	B	B	0.25	0.08	12.2	10.4	7.8	1.9
			Th	A	A	--	--	2.7	0.7	7.8	1.9
		Overall Intersection		**B**	**A**	**0.94**	**0.34**	**14.3**	**3.2**	**--**	**--**
Bank St & Echo Dr	Minor Stop	EB	R	B	B	0.12	0.02	16.8	10.5	5.7	0.7
		Overall Intersection		**A**	**A**	**0.12**	**0.02**	**0.4**	**0.2**	**--**	**--**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Bank St & Aylmer Ave	Signalized	EB	L / R	A	A	0.36	0.03	36.7	27.2	27.1	4.4
		NB	L / Th	A	A	0.42	0.10	5.4	4.7	25.3	7.7
		SB	Th / R	A	A	0.34	0.11	6.6	5.3	31.0	10.3
		Overall Intersection		**A**	**A**	**0.42**	**0.11**	**7.7**	**5.3**	**-**	**-**
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	B	A	0.69	0.51	47.4	50.3	45.4	21.5
		WB	L / Th / R	C	A	0.76	0.34	32.9	22.0	59.8	13.1
		NB	L / Th / R	A	A	0.34	0.14	8.9	3.6	35.2	13.1
		SB	L / Th / R	A	A	0.60	0.27	8.8	2.6	63.9	12.7
		Overall Intersection		**C**	**A**	**0.76**	**0.51**	**15.6**	**7.0**	**-**	**-**
QED & Princess Patricia Way	Minor Stop	NB	L / Th	A	A	0.14	0.02	9.5	7.7	4.0	0.5
		EB	L / R	C	B	0.46	0.63	26.3	17.4	17.5	33.7
		Overall Intersection		**A**	**B**	**0.46**	**--**	**4.2**	**10.9**	**--**	**--**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	A	A	0.46	0.48	37.9	38.1	27.8	28.9
		NB	L / Th	A	A	0.34	0.30	6.3	5.9	32.0	32.4
		SB	Th / R	B	A	0.61	0.20	9.7	5.1	89.7	20.8
		Overall Intersection		**B**	**A**	**0.61**	**0.48**	**11.3**	**10.9**	**-**	**-**
Bank St & Marche Way	Minor Stop	WB	L / R	B	B	0.13	0.29	12.7	13.6	3.3	1.2
		Overall Intersection		**A**	**A**	**0.13**	**0.29**	**0.7**	**2.1**	**--**	**--**
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	A	A	0.17	0.08	8.8	7.8	--	--
		WB	R	A	A	0.18	0.06	8.0	7.1	--	--
		NB	L / Th / R	A	A	0.21	0.01	8.9	7.3	--	--
		SB	R	A	A	0.11	0.11	7.7	7.2	--	--
		Overall Intersection		**A**	**A**	**0.21**	**--**	**8.4**	**7.3**	**--**	**--**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Garage Access at Exhibition Way	Two-Way Stop	WB	Th / L	A	A	0.01	--	8.9	0.0	0.0	0.0
		NB	L / R	C	C	0.38	0.53	22.3	29.1	10.2	17.4
		Overall Intersection		**A**	**A**	**0.38**	**0.53**	**4.0**	**6.4**	**--**	**--**
Exhibition Way and Service Roadway	All-Way Stop	EB	L / Th	A	A	0.32	0.30	9.5	9.9	8.4	7.8
		WB	Th / R	A	A	0.00	0.00	7.5	7.9	0.0	0.0
		SB	L / R	A	A	0.15	0.34	7.7	8.9	3.0	9.0
		Overall Intersection		**A**	**A**	**0.32**	**0.34**	**8.9**	**9.3**	**--**	**--**
Marché Way and Service Roadway	All-Way Stop	EB	L / Th	A	A	0.03	0.04	7.6	7.4	7.8	0.6
		WB	L / Th	A	A	0.24	0.12	9.1	8.2	0.6	2.4
		NB	L / R	A	A	0.31	0.25	9.1	8.4	5.4	6.0
		Overall Intersection		**A**	**A**	**0.31**	**0.25**	**9.0**	**8.3**	**--**	**--**
Marché Way and Exhibition Way	All-Way Stop	EB	Th / R	A	A	0.05	0.09	7.3	7.4	0.6	1.8
		WB	L / Th	A	A	0.20	0.10	8.0	7.5	4.8	1.8
		NB	L / R	A	A	0.00	0.00	7.4	7.3	0.0	0.0
		Overall Intersection		**A**	**A**	**0.20**	**0.10**	**7.9**	**7.5**	**--**	**--**
Garage Access at Princess Patricia Way	Two-Way Stop	EB	L	A	A	0.01	0.00	8.2	7.4	0.0	0.0
			Th	A	A	-	--	0.0	0.0	--	--
		SB	L / R	B	B	0.17	0.50	11.6	13.9	3.6	16.8
		Overall Intersection		**A**	**A**	**0.17**	**0.50**	**2.3**	**9.3**	**--**	**--**

L - Left, **Th** - Through, **R** - Right

2033 Total Future Major Event (Stadium)

summarize intersection performance during ingress and egress for a Major Event held at Lansdowne under 2033 total future conditions. As illustrated below, all study area intersections are projected to continue to operate with overall acceptable levels of service during Major Events held at the Stadium at Lansdowne.

The eastbound approach at intersection of Bank Street and Wilton Crescent is projected to continue to operate at or close to capacity with a LOS F. This occurs during the event Ingress period which overlaps with the regular PM peak period. The delays at this intersection are not directly attributed to event traffic held at Lansdowne and are associated with limited gaps in traffic in the southbound direction associated with the recently installed 3-lane cross-section of Bank Street.

In addition, the eastbound approach of the Queen Elizabeth Drive and Princess Patricia Way intersection is shown to operate with an LOS rating of F for the Ingress period. Although the analysis indicates that the movements are operating with delays, the performance of this intersection is adequately managed through the deployment of Ottawa Police Point duty as part of the traffic management measures for Major Events at Lansdowne.

No mitigation measures are recommended to improve intersection operations.

Table 4.24: 2033 Total Future Major Event (Stadium) LOS Summary

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Bank St & Fifth Ave	Signalized	EB	L / Th / R	B	C	0.70	0.80	38.9	54.1	36.3	39.7
		WB	L	A	A	0.45	0.22	32.9	25.5	20.9	12.7
			Th / R	A	A	0.43	0.59	18.3	19.6	21.8	29.6
		NB	L / Th / R	A	A	0.34	0.23	7.5	5.3	36.9	17.4
		SB	L / Th / R	A	A	0.46	0.26	7.8	6.4	46.8	23.3
		Overall Intersection		**B**	**C**	**0.70**	**0.80**	**12.6**	**14.4**	**-**	**-**
Bank St & Holmwood Ave	Signalized	EB	L / Th / R	B	B	0.62	0.62	38.5	38.9	35.3	34.2
		NB	L / Th / R	A	A	0.52	0.27	7.9	5.4	45.4	19.7
		SB	L / Th / R	A	A	0.47	0.25	4.3	3.2	18.2	9.4
		Overall Intersection		**B**	**B**	**0.62**	**0.62**	**9.0**	**9.4**	**-**	**-**
Bank St & Exhibition Way	Signalized	WB	L	*Movements Temporarily Restricted During Major Events*							
			Right								
		NB	L / Th / R	A	A	0.35	0.15	4.7	2.2	32.1	13.6
		SB	L	*Movements Temporarily Restricted During Major Events*							
			Th	A	A	0.27	0.14	4.3	2.2	24.9	12.6
		Overall Intersection		**A**	**A**	**0.35**	**0.15**	**6.1**	**2.7**	**-**	**-**
Bank St & Wilton Cr	Minor Stop	EB	R	F	B	1.09	0.01	119	13.5	131.7	0.4
		NB	L	B	A	0.21	0.00	12.6	0	6.4	0
			Th	A	A	--	--	2.6	0	6.4	0
		Overall Intersection		**C**	**A**	**1.09**	**0.01**	**20.5**	**0.1**	**--**	**--**
Bank St & Echo Dr	Minor Stop	EB	R	B	B	0.25	0.06	19.4	10.5	13.2	1.8
		Overall Intersection		**A**	**A**	**0.25**	**0.06**	**0.9**	**0.5**	**--**	**--**

Intersection	Intersection Control	Approach / Movement		LOS		V/C		Total Delay (s)		Queue 95th (m)	
				Ingress	Egress	Ingress	Egress	Ingress	Egress	Ingress	Egress
Bank St & Aylmer Ave	Signalized	EB	L / R	A	A	0.52	0.17	38.8	23.5	35.4	11.9
		NB	L / Th	A	A	0.44	0.21	5.7	4.9	27	14.6
		SB	Th / R	A	A	0.46	0.18	8.2	5.6	51.7	15.7
		Overall Intersection		**A**	**A**	**0.52**	**0.21**	**9.2**	**6.1**	**-**	**-**
Bank St & Sunnyside Ave	Signalized	EB	L / Th / R	B	A	0.66	0.60	42	51.2	57.3	28.9
		WB	L / Th / R	C	A	0.75	0.51	35.6	31.5	71.9	23.7
		NB	L / Th / R	A	A	0.42	0.16	10.5	4.2	41.2	15.8
		SB	L / Th / R	D	A	0.81	0.19	15.3	1.4	98.7	3.6
		Overall Intersection		**D**	**A**	**0.81**	**0.60**	**18.9**	**10.5**	**-**	**-**
QED & Princess Patricia Way	Minor Stop	NB	L / Th	B	A	0.16	0.05	10.2	8.3	4.9	1.3
		EB	L / R	F	D	0.93	0.93	82.4	50	75.2	86.8
		Overall Intersection		**B**	**C**	**0.93**	**0.93**	**14**	**23.5**	**--**	**--**
Queen Elizabeth Dr & Fifth Ave	Signalized	EB	L / R	B	B	0.67	0.68	39.8	39	47	50.1
		NB	L / Th	B	A	0.64	0.40	16.7	9.8	77.5	51.9
		SB	Th / R	D	A	0.83	0.40	21.9	9.6	197.1	53.5
		Overall Intersection		**D**	**B**	**0.83**	**0.68**	**23.1**	**16.3**	**-**	**-**
Bank St & Marche Way	Minor Stop	WB	L / R	*Movements Temporarily Restricted During Major Events*							
		Overall Intersection									
Fifth Ave & O'Connor St	All-Way Stop	EB	L / Th	B	A	0.21	0.13	10.1	9	--	--
		WB	R	A	A	0.28	0.16	9.7	8.4	--	--
		NB	L / Th / R	A	B	0.26	0.49	9.2	11.4	--	--
		SB	R	A	A	0.19	0.08	8.6	7.7	--	--
		Overall Intersection		**A**	**A**	**0.28**	**0.49**	**9.5**	**8.8**	**--**	**--**

5. SUMMARY AND CONCLUSIONS

This Transportation Impact Assessment (TIA) was prepared in support of a Site Plan Application (SPA) for the proposed multi-purpose Event Centre at Lansdowne Park located in the Glebe community of Ottawa, Ontario.

The proposed multi-purpose Event Centre represents Phase 1 of the Lansdowne 2.0 plan which seeks to replace existing city-owned infrastructure while adding additional density to the site. The overall Lansdowne 2.0 proposed plan includes the following phases of development:

Phase 1 *(Anticipated completion of 2028)* consists of building a new 5,500 seat (up to 6,500 spectators) multipurpose event centre that will be home to the OHL's Ottawa 67's, the CEBL's Ottawa BlackJacks, the PWHL Ottawa, and other indoor events such as shows and concerts. As this phase of Lansdowne 2.0 replaces the programming provided at the existing 9,800 seat TD Place Arena, it is not expected to generate additional transportation demands to Lansdowne.

Phase 2 *(Anticipated completion between 2030 and 2031)* consists of replacing the existing functionally obsolete north stadium stands and arena complex at TD Place Stadium with a new 11,200 seat (12,100 spectator) north stand structure. This new facility replaces the existing north stadium stands, which currently has a capacity of 14,028 spectators, and would result in a reduction of approximately 2,000 spectator capacity at TD Place Stadium. This venue will continue to be the home of the CFL's Ottawa RedBlacks and the CPL's Ottawa Atlético. As this phase of Lansdowne 2.0 replaces existing programming currently provided at TD Place Stadium, it is not expected to generate additional transportation demands to Lansdowne.

Phase 3 *(Anticipated completion between 2032 and 2036) represents the full build-out of Lansdowne 2.0 and* consists of replacing the existing 41,000 ft^2 of commercial retail and box office annex to the Stadium on Exhibition Way with 49,635 ft^2 of new podium-level commercial retail space. This represents a net increase of 8,635 ft^2 of commercial retail space from what is currently provided today. In addition, this phase includes the construction of two new residential towers with a total of 770 new dwelling units. Additional underground parking space will be constructed by extending the existing facility to accommodate an additional 386 parking spaces to service the new residential units and additional retail space, resulting in a total of 1,766 underground parking spaces at Lansdowne.

Under Phase 1, no additional trip generation demands are forecasted as the proposed multi-purpose event centre replaces the existing programming at the Arena at TD Place. It is anticipated that internal circulation and access within Lansdowne will be altered in an interim operating condition in 2028 during the construction of subsequent phases of Lansdowne 2.0.

The full build-out of Lansdowne 2.0 development is anticipated to generate between 132 and 175 net new auto trips (two-way) during the Weekday AM, Weekday PM, and Weekend Saturday and Sunday peak periods.

An analysis of study area intersections was completed under Existing Conditions, the interim 2028 Future Conditions (i.e. the completion of the new event centre and construction of subsequent phases of Lansdowne 2.0, as well as the 2033 Future Conditions (Full Build-Out of Lansdowne 2.0).

All study area intersections were shown to operate acceptably with similar levels of services currently observed today.

In conclusion, the analysis found that the anticipated Phase 1 of Lansdowne 2.0 will result in minimal impact to the overall traffic operations in the area. From a transportation standpoint, the proposed multi-purpose Event Centre can be accommodated by the future transportation network with the continued adoption of the existing comprehensive Transportation Demand Management strategy.

APPENDIX A – TURNING MOVEMENT COUNT DATA

Transportation Services - Traffic Services

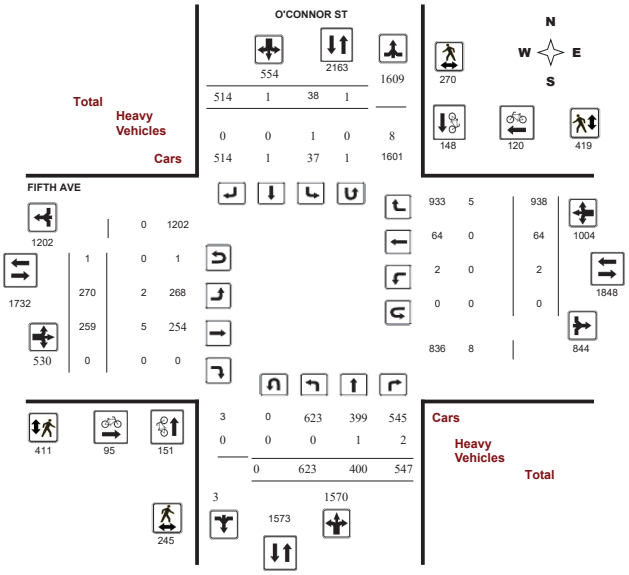
Turning Movement Count - Study Results

FIFTH AVE @ O'CONNOR ST

Survey Date: Friday, August 05, 2022 **WO No:** 40983

Start Time: 16:00 **Device:** Miovision

Full Study Diagram



Transportation Services - Traffic Services

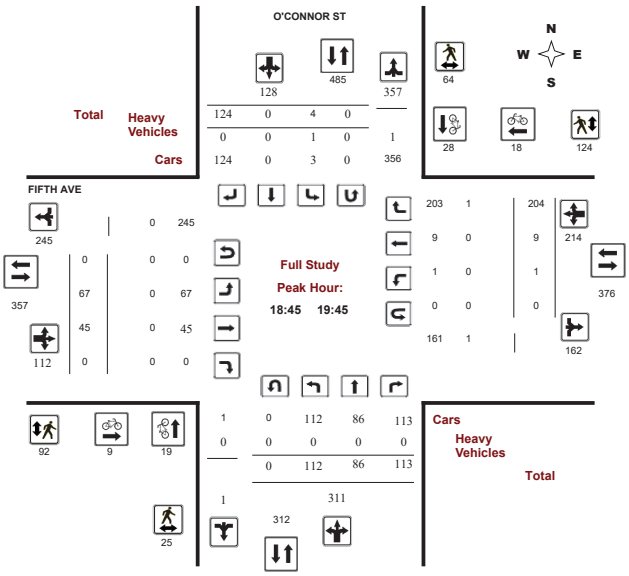
Turning Movement Count - Study Results

FIFTH AVE @ O'CONNOR ST

Survey Date: Friday, August 05, 2022 **WO No:** 40983

Start Time: 16:00 **Device:** Miovision

Full Study Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FIFTH AVE @ O'CONNOR ST

Survey Date: Friday, August 05, 2022 **WO No:** 40983

Start Time: 16:00 **Device:** Miovision

Full Study 15 Minute Increments

		O'CONNOR ST								FIFTH AVE								
		Northbound				Southbound				Eastbound				Westbound				
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
16:00	16:15	8	4	8	20	10	0	35	45	65	13	7	0	20	0	1	23	24	44	109
16:15	16:30	12	11	9	32	2	0	26	28	60	7	10	0	17	0	0	30	30	47	107
16:30	16:45	18	10	8	36	1	0	21	22	58	18	10	0	28	0	0	28	28	56	114
16:45	17:00	15	11	7	33	3	0	27	31	64	10	6	0	16	0	0	35	35	51	115
17:00	17:15	9	9	10	28	2	0	13	15	43	11	18	0	29	0	4	28	32	61	104
17:15	17:30	19	13	22	54	6	0	17	23	77	6	13	0	19	0	1	27	28	47	124
17:30	17:45	30	15	32	77	1	0	24	25	102	8	12	0	20	0	3	39	42	62	164
17:45	18:00	24	17	19	60	3	0	27	30	90	10	6	0	16	0	6	52	58	74	164
18:00	18:15	36	14	27	77	0	0	28	28	105	18	7	0	25	0	9	51	60	85	190
18:15	18:30	14	18	33	65	0	0	20	20	85	14	17	0	31	1	9	46	56	87	172
18:30	18:45	25	25	19	69	0	0	20	20	89	11	17	0	28	0	1	34	35	63	152
18:45	19:00	34	21	22	77	1	0	42	43	120	19	7	0	26	0	0	30	30	56	176
19:00	19:15	34	21	27	82	1	0	34	35	117	19	12	0	31	1	4	53	58	89	206
19:15	19:30	23	20	28	71	1	0	29	30	101	15	12	0	27	0	4	60	64	91	192
19:30	19:45	21	24	36	81	1	0	19	20	101	14	14	0	28	0	1	61	62	90	191
19:45	20:00	25	19	22	66	0	0	13	13	79	11	13	0	24	0	1	28	29	53	132
20:00	20:15	23	12	13	48	1	0	15	16	64	7	6	0	13	0	1	23	24	37	101
20:15	20:30	36	8	19	63	0	0	12	12	75	4	7	0	11	0	1	12	13	24	99
20:30	20:45	34	9	10	53	1	0	8	9	62	6	6	0	12	0	0	17	17	29	91
20:45	21:00	11	7	13	31	0	0	11	11	42	4	6	0	10	0	2	24	26	36	78
21:00	21:15	22	9	15	46	1	0	7	8	54	5	11	0	16	0	2	21	23	39	93
21:15	21:30	15	6	12	33	0	1	8	9	42	5	3	0	9	0	4	19	23	32	74
21:30	21:45	19	10	9	38	0	0	8	8	46	4	3	0	7	0	3	14	17	24	70
21:45	22:00	15	9	16	40	0	0	9	9	49	2	6	0	8	0	1	25	26	34	83
22:00	22:15	19	11	20	50	0	0	7	7	57	5	10	0	15	0	1	33	34	49	106
22:15	22:30	22	25	35	82	2	0	7	9	91	9	7	0	16	0	0	21	21	37	128
22:30	22:45	20	16	23	59	1	0	12	13	72	5	5	0	10	0	0	38	38	48	120
22:45	23:00	9	8	12	29	0	0	6	6	35	1	4	0	5	0	0	26	26	31	66
23:00	23:15	13	8	8	29	0	0	5	5	34	2	3	0	5	0	2	15	17	22	56
23:15	23:30	5	4	5	14	0	0	1	1	15	4	0	0	4	0	1	8	9	13	28
23:30	23:45	5	3	3	11	0	0	2	2	13	1	1	0	2	0	1	8	9	11	24
23:45	00:00	8	3	5	16	0	0	1	1	17	2	0	0	2	0	1	9	10	12	29
Total:		623	400	547	1570	38	1	514	554	2124	270	259	0	530	2	64	938	1004	1534	3,658

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

FIFTH AVE @ O'CONNOR ST

Survey Date: Friday, August 05, 2022 **WO No:** 40983

Start Time: 16:00 **Device:** Miovision

Full Study Cyclist Volume

		O'CONNOR ST			FIFTH AVE			
Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
16:00	16:15	3	6	9	4	6	10	19
16:15	16:30	3	2	5	7	3	10	15
16:30	16:45	4	4	8	5	7	12	20
16:45	17:00	4	7	11	4	4	8	19
17:00	17:15	5	4	9	9	7	16	25
17:15	17:30	9	12	21	6	3	9	30
17:30	17:45	2	5	7	0	8	8	15
17:45	18:00	2	13	15	3	4	7	22
18:00	18:15	4	4	8	2	6	8	16
18:15	18:30	2	6	8	1	6	7	15
18:30	18:45	5	9	14	5	5	10	24
18:45	19:00	4	4	8	0	9	9	17
19:00	19:15	7	8	15	4	0	4	19
19:15	19:30	4	8	12	4	5	9	21
19:30	19:45	4	8	12	1	4	5	17
19:45	20:00	2	5	7	1	5	6	13
20:00	20:15	1	2	3	1	1	2	5
20:15	20:30	5	2	7	1	3	4	11
20:30	20:45	0	8	8	1	4	5	13
20:45	21:00	0	0	0	4	5	9	9
21:00	21:15	0	3	3	2	3	5	8
21:15	21:30	5	3	8	8	5	13	21
21:30	21:45	3	5	8	2	4	6	14
21:45	22:00	10	6	16	4	2	6	22
22:00	22:15	22	5	27	7	4	11	38
22:15	22:30	18	2	20	4	1	5	25
22:30	22:45	5	0	5	3	3	6	11
22:45	23:00	10	6	16	0	0	0	16
23:00	23:15	1	0	1	1	2	3	4
23:15	23:30	3	0	3	0	1	1	4
23:30	23:45	0	1	1	0	0	0	1
23:45	00:00	4	0	4	1	0	1	5
Total		151	148	**299**	95	120	215	514

Transportation Services - Traffic Services

Turning Movement Count - Study Results

FIFTH AVE @ O'CONNOR ST

Survey Date: Friday, August 05, 2022 **WO No:** 40983

Start Time: 16:00 **Device:** Miovision

Full Study Pedestrian Volume

		O'CONNOR ST			FIFTH AVE			
Time Period		NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
16:00	16:15	2	9	**11**	13	8	**21**	**32**
16:15	16:30	5	7	**12**	10	4	**14**	**26**
16:30	16:45	6	14	**20**	18	11	**29**	**49**
16:45	17:00	5	3	**8**	6	7	**13**	**21**
17:00	17:15	9	18	**27**	10	7	**17**	**44**
17:15	17:30	6	1	**7**	18	7	**25**	**32**
17:30	17:45	7	7	**14**	17	7	**24**	**38**
17:45	18:00	3	8	**11**	10	21	**31**	**42**
18:00	18:15	9	8	**17**	11	13	**24**	**41**
18:15	18:30	15	21	**36**	19	35	**54**	**90**
18:30	18:45	3	14	**17**	21	29	**50**	**67**
18:45	19:00	5	17	**22**	20	16	**36**	**58**
19:00	19:15	7	21	**28**	33	39	**72**	**100**
19:15	19:30	10	17	**27**	25	48	**73**	**100**
19:30	19:45	3	9	**12**	14	21	**35**	**47**
19:45	20:00	12	7	**19**	17	17	**34**	**53**
20:00	20:15	5	10	**15**	3	4	**7**	**22**
20:15	20:30	10	3	**13**	3	2	**5**	**18**
20:30	20:45	8	0	**8**	4	1	**5**	**13**
20:45	21:00	6	6	**12**	0	4	**4**	**16**
21:00	21:15	11	4	**15**	3	4	**7**	**22**
21:15	21:30	17	10	**27**	8	11	**19**	**46**
21:30	21:45	4	5	**9**	6	5	**11**	**20**
21:45	22:00	13	10	**23**	8	14	**22**	**45**
22:00	22:15	16	9	**25**	35	28	**63**	**88**
22:15	22:30	22	6	**28**	49	20	**69**	**97**
22:30	22:45	26	3	**29**	20	17	**37**	**66**
22:45	23:00	0	10	**10**	6	7	**13**	**23**
23:00	23:15	0	3	**3**	1	0	**1**	**4**
23:15	23:30	0	0	**0**	0	1	**1**	**1**
23:30	23:45	0	7	**7**	0	9	**9**	**16**
23:45	00:00	0	3	**3**	3	2	**5**	**8**
Total	.....	245	270	**515**	411	419	**830**	**1345**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

FIFTH AVE @ O'CONNOR ST

Survey Date: Friday, August 05, 2022 WO No: 40983

Start Time: 16:00 Device: Miovision

Full Study Heavy Vehicles

		O'CONNOR ST								FIFTH AVE									
		Northbound				Southbound				Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
16:00	16:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
16:15	16:30	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
16:30	16:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
16:45	17:00	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	0	0	**1**	**2**	**1**
17:00	17:15	0	0	1	**1**	0	0	0	**0**	**1**	0	0	0	**0**	0	0	0	**1**	**1**	**1**
17:15	17:30	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
17:30	17:45	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	0	0	**1**	**2**	**1**
17:45	18:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
18:00	18:15	0	0	0	**0**	0	0	0	**1**	**1**	1	0	0	**1**	0	0	0	**0**	**1**	**1**
18:15	18:30	0	0	0	**0**	0	0	0	**1**	**1**	1	0	0	**1**	0	0	0	**0**	**1**	**1**
18:30	18:45	0	0	0	**0**	0	0	0	**1**	**1**	0	1	0	**1**	0	0	1	**2**	**3**	**2**
18:45	19:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
19:00	19:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
19:15	19:30	0	0	0	**0**	0	0	0	**1**	**1**	0	0	0	**0**	0	0	1	**1**	**1**	**1**
19:30	19:45	0	0	0	**0**	1	0	0	**1**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
19:45	20:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
20:00	20:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
20:15	20:30	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
20:30	20:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
20:45	21:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
21:00	21:15	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	0	0	**1**	**2**	**1**
21:15	21:30	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
21:30	21:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
21:45	22:00	0	0	1	**1**	0	0	0	**0**	**1**	0	1	0	**1**	0	0	0	**2**	**3**	**2**
22:00	22:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
22:15	22:30	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
22:30	22:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
22:45	23:00	0	0	0	**0**	0	0	0	**3**	**3**	0	0	0	**0**	0	0	3	**3**	**3**	**3**
23:00	23:15	0	1	0	**1**	0	0	0	**1**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
23:15	23:30	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
23:30	23:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
23:45	00:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
Total:	None	0	1	2	**3**	1	0	0	**9**	**12**	2	5	0	**7**	0	0	5	**13**	**20**	**16**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

FIFTH AVE @ O'CONNOR ST

Survey Date: Friday, August 05, 2022 WO No: 40983

Start Time: 16:00 Device: Miovision

Full Study 15 Minute U-Turn Total

		O'CONNOR ST		FIFTH AVE		
Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	0	0	0
16:45	17:00	0	1	0	0	1
17:00	17:15	0	0	0	0	0
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
18:00	18:15	0	0	0	0	0
18:15	18:30	0	0	0	0	0
18:30	18:45	0	0	0	0	0
18:45	19:00	0	0	0	0	0
19:00	19:15	0	0	0	0	0
19:15	19:30	0	0	0	0	0
19:30	19:45	0	0	0	0	0
19:45	20:00	0	0	0	0	0
20:00	20:15	0	0	0	0	0
20:15	20:30	0	0	0	0	0
20:30	20:45	0	0	0	0	0
20:45	21:00	0	0	0	0	0
21:00	21:15	0	0	0	0	0
21:15	21:30	0	0	1	0	1
21:30	21:45	0	0	0	0	0
21:45	22:00	0	0	0	0	0
22:00	22:15	0	0	0	0	0
22:15	22:30	0	0	0	0	0
22:30	22:45	0	0	0	0	0
22:45	23:00	0	0	0	0	0
23:00	23:15	0	0	0	0	0
23:15	23:30	0	0	0	0	0
23:30	23:45	0	0	0	0	0
23:45	00:00	0	0	0	0	0
Total		0	1	1	0	2

5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC

Tue May 3, 2022

Full Length (6:30 AM-9:30 AM, 11:30 AM-2 PM, 3:30 PM-6 PM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 947989, Location: 45.399403, -75.68617

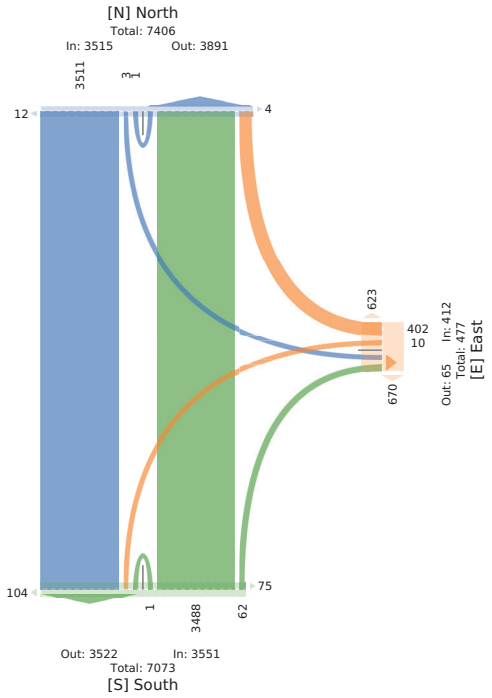
Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA

Leg		North					East					South					
Direction		Southbound					Westbound					Northbound					
Time		T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	Int
2022-05-03	6:00AM	115	0	0	**115**	0	5	0	0	**5**	15	2	105	0	**107**	16	**227**
	7:00AM	296	1	0	**297**	2	13	0	0	**13**	47	1	302	0	**303**	34	**613**
	8:00AM	359	0	0	**359**	3	30	0	0	**30**	77	5	507	0	**512**	24	**901**
	9:00AM	181	0	0	**181**	2	14	0	0	**14**	40	2	230	0	**232**	3	**427**
	11:00AM	244	0	0	**244**	4	32	0	0	**32**	96	6	229	0	**235**	6	**511**
	12:00PM	452	0	0	**452**	1	58	1	0	**59**	205	10	435	0	**445**	13	**956**
	1:00PM	455	0	0	**455**	1	56	2	0	**58**	155	9	455	0	**464**	22	**977**
	3:00PM	279	0	0	**279**	0	37	1	0	**38**	118	6	234	0	**240**	7	**557**
	4:00PM	571	1	0	**572**	1	68	2	0	**70**	296	7	509	0	**516**	29	**1158**
	5:00PM	559	1	1	**561**	2	89	4	0	**93**	244	14	482	1	**497**	25	**1151**
Total		3511	3	1	**3515**	16	402	10	0	**412**	1293	62	3488	1	**3551**	179	**7478**
% Approach		99.9%	0.1%	0%	**-**	-	97.6%	2.4%	0%	**-**	-	1.7%	98.2%	0%	**-**	-	-
% Total		47.0%	0%	0%	**47.0%**	-	5.4%	0.1%	0%	**5.5%**	-	0.8%	46.6%	0%	**47.5%**	-	-
Lights and Motorcycles		3258	0	1	**3259**	-	369	10	0	**379**	-	58	3237	1	**3296**	-	6934
% Lights and Motorcycles		92.8%	0%	100%	**92.7%**	-	91.8%	100%	0%	**92.0%**	-	93.5%	92.8%	100%	**92.8%**	-	92.7%
Heavy		173	0	0	**173**	-	23	0	0	**23**	-	0	152	0	**152**	-	348
% Heavy		4.9%	0%	0%	**4.9%**	-	5.7%	0%	0%	**5.6%**	-	0%	4.4%	0%	**4.3%**	-	4.7%
Bicycles on Road		80	3	0	**83**	-	10	0	0	**10**	-	4	99	0	**103**	-	196
% Bicycles on Road		2.3%	100%	0%	**2.4%**	-	2.5%	0%	0%	**2.4%**	-	6.5%	2.8%	0%	**2.9%**	-	2.6%
Pedestrians		-	-	-	-	15	-	-	-	-	1271	-	-	-	-	179	
% Pedestrians		-	-	-	-	93.8%	-	-	-	-	98.3%	-	-	-	-	100%	-
Bicycles on Crosswalk		-	-	-	-	1	-	-	-	-	22	-	-	-	-	0	
% Bicycles on Crosswalk		-	-	-	-	6.3%	-	-	-	-	1.7%	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC
Tue May 3, 2022
Full Length (6:30 AM-9:30 AM, 11:30 AM-2 PM, 3:30 PM-6 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 947989, Location: 45.399403, -75.68617

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC
Tue May 3, 2022
F M l eaL ngt30 F M h(t30 F M6
F :: A:a--e- r9 1P) G asi MdGdoryr:e-, c eaHy, l ei e-Gdas-, v lryr:e- ds Bdai , v lryr:e- ds Aod--Ra:L6
F :: MdHewesG
kmt (l D[g(, 9 draGdst I 473((I 03, hD47Bg85D

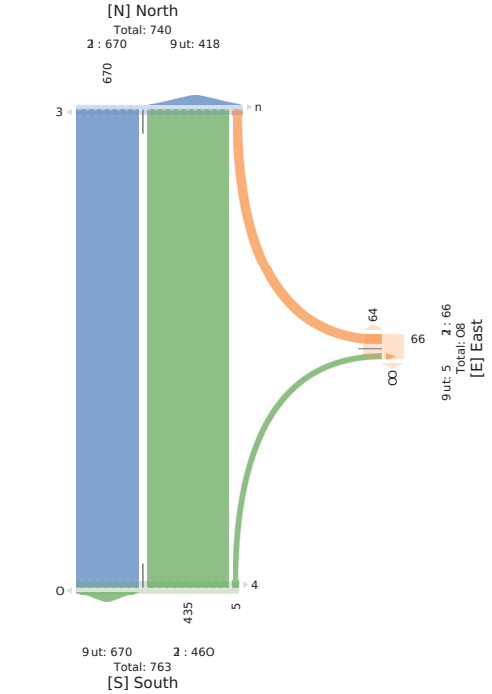
Provided by: City of Ottawa
l odHHi ei . yt AIGy dbf (GaRa
500 Ads-Ge::aGds mq
OeNeas, f O, p 2K 4G(, AF

9eP mlxerGds	OdoG EduG. dusi					Ja-C S e-Cdusi					EduG OdoG. dusi					
Tlwe	T	9	W	FNN	l ei U	B	9	W	FNN	l ei U	B	T	W	FNN	l ei U	UscC
2022h04h03 gt30F M	(3	0	0	**(3**	5	50	0	0	**50**	5I	3	5I 0	0	**5I 3**	2	**2I 8**
gtI 4F M	52I	0	0	**52I**	0	(	0	0	**(**	24	2	54D	0	**54(**	I	**2(2**
(t00F M	(I	0	0	**(I**	0	D	0	0	**D**	25	0	52(	0	**52(**	2	**230**
(t54F M	gD	0	0	**gD**	2	D	0	0	**D**	5(	2	505	0	**503**	5	**5(D**
TdGk:	3(g	0	0	**3(g**	3	33	0	0	**33**	D[	D	42D	0	**43I**	(	**(84**
*** FNNdar)**	500*	0*	0*	**h**	h	500*	0*	0*	**h**	h	57I*	(gD[*	0*	**h**	h	h
*** TdGk:**	152*	0*	0*	**152***	h	3I *	0*	0*	**3I ***	h	0I[*	4I'I*	0*	**442***	h	h
l c %	0I g00	h	h	**0I g00**	h	0I g00	h	h	**0I g00**	h	0I824	0I g3D	h	**0I g3I**	h	0I g25
9 1P) G asi MdGdoryr:e-	3[D	0	0	**3[D**	h	2D	0	0	**2D**	h	4	I D[	0	**I gI**	h	888
*** 9 1P) G asi MdGdoryr:e-**	(I [D*	0*	0*	**(I [D***	h	g5 g*	0*	0*	**g5 g***	h	D5'I *	(0[*	0*	**(0I8***	h	(2'0*
c eaHy	20	0	0	**20**	h	4	0	0	**4**	h	0	30	0	**30**	h	44
*** c eaHy**	4I0*	0*	0*	**4I0***	h	542*	0*	0*	**542***	h	0*	4I[*	0*	**4I8***	h	4I[*
v lryr:e- ds Bdai	5	0	0	**5**	h	5	0	0	**5**	h	2	5g	0	**20**	h	22
*** v lryr:e- ds Bdai**	0I8*	0*	0*	**0I8***	h	3I0*	0*	0*	**3I0***	h	2g'8*	3I *	0*	**3I[***	h	2'8*
l ei e-Gdas-	h	h	h	h	3	h	h	h	h	D4	h	h	h	h	(	
* l ei e-Gdas-	h	h	h	h	500*	h	h	h	h	(I [*	h	h	h	h	500*	h
v lryr:e- ds Aod--Ra:L	h	h	h	h	0	h	h	h	h	I	h	h	h	h	0	
* v lryr:e- ds Aod--Ra:L	h	h	h	h	0*	h	h	h	h	47.5*	h	h	h	h	0*	h

[1] l ei e-Gdas- asi v lryr:e- ds Aod--Ra:L79 t 9 ebC, Bt B 1P) Ç Tt T) ou, Wt WhIuos

5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC
Tue May 3, 2022
AM Peak (8:30 AM - 9:30 AM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 947989, Location: 45.399403, -75.68617

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC
Tue May 3, 2022
MIl l ay Lean gt 2I80 LM (t I80 LM6
: A- A90e9 gl 1P) C9 asl Mi G dayoA9, r eacy, Lel e9GIas 9, HIoyoA9 i s v i al , HIoyoA9 i s - di 99Ba:A6
: AAMi ceRes C9
vk hm1 Dm4m, 1 i oaGI s hI 783mm1 03, (D'8545t D

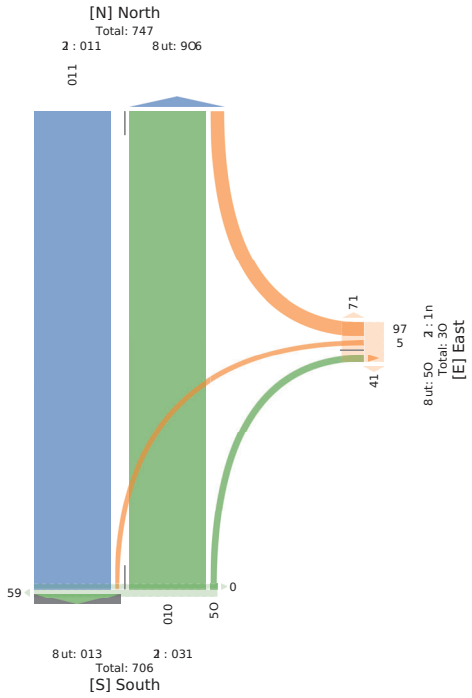
Ldi cIl el . yh- IGy i b f GaBa
t 00 - i s 9GeAaGI s k d
OeNeas, f O, p 2K 7Gn - :

1eP k IGeoGIs	Oi dG Ei uG. i us1					Ja9C S e9C i us1					Ei uG Oi dG. i us1					
TIRe	T	1	W	: NN	Lel U	v	1	W	: NN	Lel U	v	T	W	: NN	Lel U	uscC
2022(07(03 t 2I80LM	t 0D	0	0	**t 0D**	0	t 3	t	0	**t I**	73	7	t 0m	0	**t t I**	5	**237**
t 2I I 7LM	t 25	0	0	**t 25**	0	t D	0	0	**t D**	I m	3	t t m	0	**t 22**	0	**257**
t I00LM	t t m	0	0	**t t m**	0	t 5	0	0	**t 5**	3t	3	t 2D	0	**t 30**	I	**257**
t h 7LM	t t I	0	0	**t t I**	0	t 3	0	0	**t 3**	I m	t	t 0m	0	**t t 0**	m	**23D**
Ti GA	I 55	0	0	**I 55**	0	7m	t	0	**50**	t 42	t 2	I 5I	0	**I D5**	t m	**t 002**
*** : NNIao)**	t 00*	0*	0*	**(**	(	m8B*	t 8[*	0*	**(**	(	2B'*	m8B'*	0*	**(**	(	(
*** Ti GA**	I 58'*	0*	0*	**I 58'***	(	78mf	08 *	0*	**580***	(	t 8I*	I 58I*	0*	**I D8'***	(	(
Lr %	08n82	(	(	**08n82**	(	08I54	08'70	(	**08142**	(	08'70	08n82	(	**08n8t**	(	08nI 3
1IP) C9 asl Mi GdayoA9	12I	0	0	**I 2I**	(	72	t	0	**73**	(	t t	I 3t	0	**I I2**	(	m m
*** 1IP) C9 asl Mi GdayoA9**	m 8[*	0*	0*	**m 8[***	(	448 t *	t 00*	0*	**448[***	(	m 8[*	m2 8mf	0*	**m28mf**	(	m 8[*
r eacy	3t	0	0	**3t**	(	D	0	0	**D**	(	0	20	0	**20**	(	74
*** r eacy**	58[*	0*	0*	**58[***	(	t t 8mf	0*	0*	**t t 8[***	(	0*	I 8[*	0*	**I 8[***	(	78[*
HIoyoA9 i s v i al	t t	0	0	**t t**	(	0	0	0	**0**	(	t	t 3	0	**t I**	(	27
*** HIoyoA9 i s v i al**	28 *	0*	0*	**28 ***	(	0*	0*	0*	**0***	(	48[*	28[*	0*	**28mf**	(	28'*
Lel e9GIas 9	(	(	(	(	0	(	(	(	(	t 4t	(	(	(	(	t m	
* Lel e9GIas 9	(	(	(	(		(	(	(	(	m8'*	(	(	(	(	t 00*	(
HIoyoA9 i s - di 99BaA	(	(	(	(	0	(	(	(	(	t	(	(	(	(	0	
* HIoyoA9 i s - di 99BaA	(	(	(	(		(	(	(	(	08'*	(	(	(	(	0*	(

[1] Lel e9GIas 9 asl HIoyoA9 i s - di 99BaA81 h1 ebC, v hv IP) Ç ThT) du, VhW(Tuds

5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC

Tue May 3, 2022
MAPPay kea(8 2-30 kM 9: -30 kM)
l (Cs GilLeL.8 AghtLanP Mdtdcryr@L, c eaHy, kePeIIoAnL, v Atyr@Ldn BdaP, v Atyr@Ldn s odLLRa(C.)
l (CMdHewentL
nl - D47D5D, i dratAln- 4. G3DD403, 97. 6151: 7



5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC

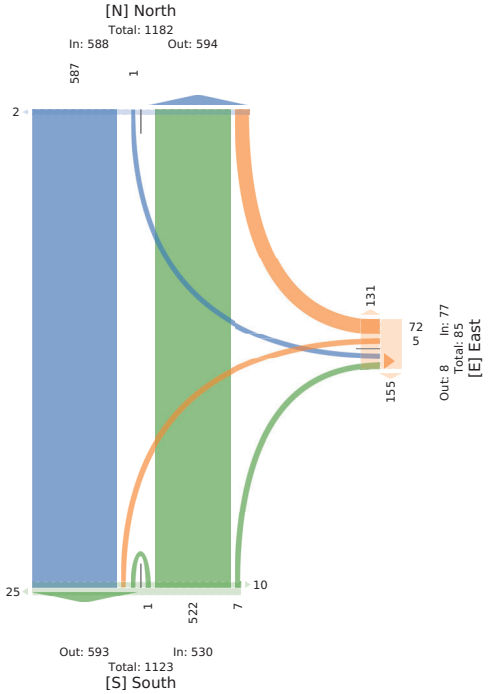
Tue May 3, 2022
FM Feal Ing h FM (hg h FM6 (: Ae-a9Feal 1 Pu-
) 9C9sses Ii dor cs aHv MPcP-ByBes, 1 eaAy, Fevesc-dHs, RdyByBes PHwPav, RdyByBes PH C-Pssk a9 6
) 9)MPAemeHs
IDg4n7484, i PEacPHgnh5344n03, (7h5 8. t 7

i eo DdeBcPH	OP-cr EPucr bPuHv					J asc S escbPuHv					EPucr OP-cr bPuHv					
Tdne	T	i	W	) NN	FevU	w	i	W	) NN	FevU	w	T	W	) NN	FevU	IHc
2022(0h(03 ng hFM	t 3t	0	0	**t 3t**	0	t 4	t	0	**20**	. 4	0	t n3	0	**t n3**	n	**24n**
ng80FM	t . t	0	0	**t . t**	t	t 3	0	0	**t 3**	. 7	t	t t 7	0	**t t 8**	h	**242**
ngnhFM	t nh	0	0	**t nh**	0	t 8	t	0	**t 4**	84	t	t 3n	0	**t 3h**	t n	**244**
hg00FM	t h0	t	0	**t ht**	t	22	3	0	**2h**	. t	h	t 28	t	**t 3n**	t 2	**3t 0**
TPcn9	h87	t	0	**h88**	2	72	h	0	**77**	28.	7	h22	t	**h30**	3h	**t t 4h**
*) NNPaBr	443*	02*	0*	**(**	(	433*	. 5*	0*	**(**	(	t 5*	485*	02*	**(**	(	(
* TPcn9	n43 *	0 *	0*	**n42***	(	. 9*	05*	0*	**. 5***	(	05 *	n35*	0 *	**nn5***	(	(
F1 %	0B48	(	(	**0B48**	(	07. t	05t	7	**(** 0**5720**	(	05h0	0B8.	02h0	**05400**	(	05t. h
i dor cs aHv MPcP-ByBes	hn4	0	0	**hn4**	(	. h	h	0	**70**	(	7	n4t	t	**n44**	(	t t t 8
* i dor cs aHv MPcP-ByBes	433*	0*	0*	**433***	(	405*	t 00*	0*	**405***	(	t 00*	4n3 *	t 00*	**4n5***	(	435 *
1 eaAy	t h	0	0	**t h**	(	2	0	0	**2**	(	0	t 2	0	**t 2**	(	24
* 1 eaAy	25 *	0*	0*	**25 ***	(	25*	0*	0*	**25 ***	(	0*	25*	0*	**25***	(	25*
RdyByBes PHwPav	23	t	0	**2n**	(	h	0	0	**h**	(	0	t 4	0	**t 4**	(	n8
* RdyByBes PHwPav	35*	t 00*	0*	**n5 ***	(	. 5*	0*	0*	**. 5***	(	0*	35 *	0*	**35 ***	(	n5*
Fevesc-dHs	(	(	(	(	2	(	(	(	(	283	(	(	(	(	3h	
* Fevesc-dHs	(	(	(	(	t 00*	(	(	(	(	445*	(	(	(	(	t 00*	(
RdyByBes PHC-Pssk a9	(	(	(	(	0	(	(	(	(	3	(	(	(	(	0	
* RdyByBes PHC-Pssk a9	(	(	(	(	0*	(	(	(	(	t 5*	(	(	(	(	0*	(

L[*] Fevesc-dHs aHv RdyByBes PHC-Pssk a9 5i gi efc, wgwdbr c, TgTr -u, WgW(Tu-H

5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC

Tue May 3, 2022
AM AeaP k(8 - AM 9 - 8 - AM) 91 CesaLLAeaP i gus
h lLt lamen kdor cH avB MgIgsByBen, i eaCy, AeBenIsavn, wdyBen gv mgaB, wdyBen gv t sgmnl alP)
h lLMgCeDevh
47 85(. 565, d gRaIgv8(- B55(03, 9 - 1b6b: .



5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

Tue May 3, 2022
Full Length (6:30 AM-9:30 AM, 11:30 AM-2 PM, 3:30 PM-6 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 947992, Location: 485399. 96, -783. 6863

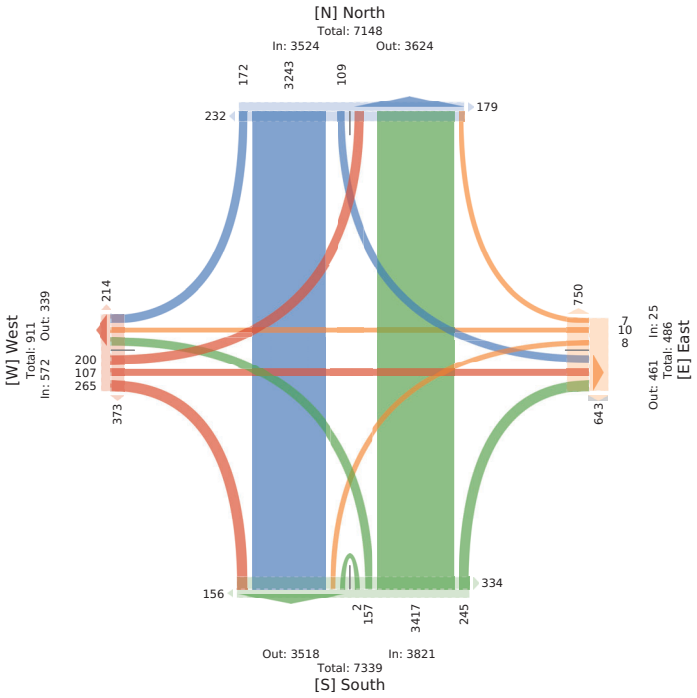
Leg Direction	North Southbound						East Westbound						South Northbound						West Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2022-08-03 6:00AM	9	108	3	0	**117**	8	0	0	0	0	**0**	1.	2	99	7	0	**10.**	6	11	0	7	0	**1.**	12	**243**
7:00AM	10	260	3	0	**273**	11	0	1	1	0	**2**	46	6	299	.	0	**313**	21	32	2	20	0	**84**	23	**642**
. :00AM	20	331	11	0	**362**	30	2	3	0	0	**8**	. 2	23	496	10	0	**829**	42	26	19	22	0	**67**	81	**963**
9:00AM	10	169	2	0	**1. 1**	18	0	2	0	0	**2**	41	10	227	11	1	**249**	1.	14	.	12	0	**34**	28	**466**
11:00AM	10	219	.	0	**237**	28	1	0	1	0	**2**	106	12	227	9	0	**24.**	24	16	4	9	0	**29**	27	**816**
12:00PM	19	436	L	0	**473**	73	2	2	0	0	**4**	223	32	437	18	0	**4. 4**	79	27	13	3.	0	**7.**	106	**1039**
1:00PM	26	416	13	0	**488**	4.	1	0	1	0	**2**	206	30	484	29	0	**813**	80	3.	18	21	0	**74**	. 6	**1044**
3:00PM	12	266	10	0	**2.**	29	0	0	1	0	**1**	132	21	242	12	0	**278**	40	17	10	18	0	**42**	8.	**606**
4:00PM	28	821	24	0	**870**	77	0	1	3	0	**4**	266	81	468	30	0	**846**	112	47	19	32	0	**9.**	97	**121.**
8:00PM	31	820	17	0	**86.**	9.	1	1	1	0	**3**	273	8.	471	26	1	**886**	9.	37	17	24	0	**7.**	102	**1208**
Total	172	3243	109	0	**3824**	411	7	10	.	0	**28**	1393	248	3417	187	2	**3. 21**	490	268	107	200	0	**872**	8. 7	**7942**
% Approach	4S%	92S%	3S%	0%	**-**	-	2. 5%	40S%	32S%	0%	**-**	-	6S%	. 9S%	4S%	0S%	**-**	-	46S%	1. 5%	38S%	0%	**-**	-	-
% Total	2S%	40S %	1S%	0%	**44S%**	-	0S%	0S%	0S%	0%	**0S%**	-	3S%	43S%	2S%	0%	**4. 1%**	-	3S%	1S%	2S%	0%	**72%**	-	-
Lights and Motorcycles	164	3027	108	0	**3296**	-	2	0	0	0	**2**	-	227	3164	144	2	**3837**	-	244	. .	191	0	**823**	-	738.
% Lights and Motorcycles	38S%	93S%	96S%	0%	**93S%**	-	2. 5%	0%	0%	0%	**. 5%**	-	92S%	92S%	91S%	100%	**92S%**	-	92S%	. 2S%	98S%	0%	**91S%**	-	92S%
Heavy	3	147	2	0	**182**	-	0	0	1	0	**1**	-	1	176	4	0	**1. 1**	-	12	3	.	0	**23**	-	387
% Heavy	1S%	4S%	1S %	0%	**4S%**	-	0%	0%	12S%	0%	**4S%**	-	0S%	8S%	2S%	0%	**4S%**	-	4S%	2S %	4S%	0%	**4S%**	-	4S%
Bicycles on Road	8	69	2	0	**76**	-	8	10	7	0	**22**	-	17	77	9	0	**103**	-	9	16	1	0	**26**	-	227
% Bicycles on Road	2S%	2S%	1S %	0%	**2S%**	-	71S%	100%	. 7S%	0%	**. . 5%**	-	6S%	2S%	8S%	0%	**2S%**	-	3S%	18S%	0S%	0%	**4S%**	-	2S%
Pedestrians	-	-	-	-	-	3. 6	-	-	-	-	1364	-	-	-	-	-	-	4. 0	-	-	-	-	-	877	-
% Pedestrians	-	-	-	-	-	93S%	-	-	-	-	-	97S%	-	-	-	-	-	9. 5%	-	-	-	-	-	9. 5%	-
Bicycles on Crosswalk	-	-	-	-	-	28	-	-	-	-	29	-	-	-	-	-	10	-	-	-	-	-	10	-	
% Bicycles on Crosswalk	-	-	-	-	-	6S%	-	-	-	-	2S%	-	-	-	-	-	2S%	-	-	-	-	-	1S%	-	

[*] Pedestrians and Bicycles on Crosswalk5L: Left, R: Right, T: Thru, U: U-Turn

5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

Tue May 3, 2022
Full Length (6:30 AM-9:30 AM, 11:30 AM-2 PM, 3:30 PM-6 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 947992, Location: 485399. 96, -7856. 6863

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 8J9, CA



5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

Tue May 3, 2022

l odHl ei 5yt Al(ý d. b (2Ra
f 00 Ads-(@::aCl4s mq
OeNeas, b O, p 2K 4(Ç, AF

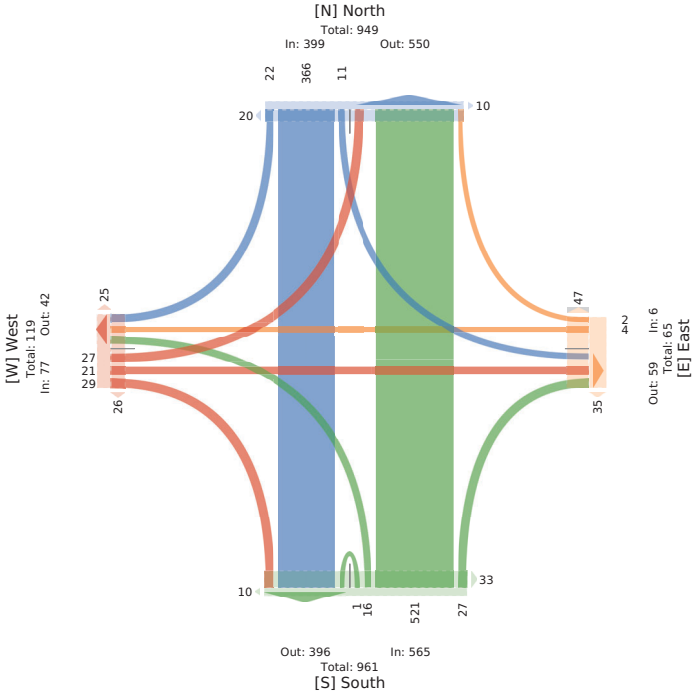
9eP mkerCl4s	OdoCj Edu(Ç 5dusi							Ja-C S e-Gdusi								OduCj Odu(Ç 5dusi								S e-C J a-Gdusi							
Thwe	B	T	9	W	FNN	l ei U		B	T	9	W	FNN	l ei U			B	T	9	W	FNN	l ei U			B	T	9	W	FNN	l ei U		
2022(04(03 g:30F M	I	gf	D	0	(2	1		2	0	0	0	2	f 8			8	f 3(	2	0	f l D	(			I	(	8	0	f(	f 8		280
gI 4F M	g	f f 8	2	0	f 28	f f		0	2	0	0	2	24			f f	f 44	3	0	f 8(	f 8			f f	I	(	0	2t	f 0		32f
(t00F M	D	(2	0	0	((	f 0		0	f	0	0	f	2f			4	f f(	g	f	f 33	4			f 0	8	D	0	23	f 2		248
(tf 4F M	3	DD	2	0	g2	4		0	f	0	0	f	20			4	f 0g	3	0	f f 8	f 3			I	2	4	0	ff	f 3		2f 0
TdGt:	22	388	f f	0	3((	30		2	I	0	0	8	g2			2D	42f	f 8	f	484	t 3			2(	2f	2D	0	DD	4f		f 0I D
* FNNdar)	47t*	(f 7D*	2 7g*	0*	h	h		333t*	88 7D*	0*	0*	h	h			1 3t*	(2 7*	2 7g*	0 7t*	h	h			3 I D*	2 I 3t*	34 7 *	0*	h	h		h
* TdGt:	2 7 *	34 7D*	f 7 *	0*	3g7 *	h		0 7t*	0 I *	0*	0*	0 7B*	h			2 7B*	1 (3g*	f 7t*	0 7 *	4 I 7D*	h			2 7g*	2 7D*	2 7B*	0*	D I *	h		h
l c %	0 7Bgg	0 7t 3	0 7t(3	h	0 7I (8	h		h	h	h	h	h	h			0 7B8D	0 7g2f	0 7 3g	0 74 40	0 7g28	h			0 7B4(	0 7t48	0 7I 40	h	0 7g28	h		0 7g f I
9 IP)G asi Mdd(oryr:e-	2f	3 I 1	f f	0	3D 8	h		0	0	0	0	0	h			2 I	I D2	f 3	f	4f 0	h			2g	20	2 I	0	D2	h		(4g
* 9 IP)G asi Mdd(oryr:e-	(47t*	(I 7D*	f 00*	0*	(I 2*	h		0*	0*	0*	0*	0*	h			ggf *	(0 7t*	gf 7B*	f 00*	(07B*	h			(87t*	(47t*	gg7 *	0*	(37t*	h		(f 7t*
c eal y	f	2f	0	0	22	h		0	0	0	0	0	h			0	3t	f	0	34	h			f	0	3	0	I	h		8f
* c eal y	I 7t*	47D*	0*	0*	47t*	h		0*	0*	0*	0*	0*	h			0*	87t*	87B*	0*	87t*	h			3 I *	0*	f I 7 *	0*	47t*	h		47t*
v lryr:e- ds Bdai	0	f	0	0	f	h		2	I	0	0	8	h			3	f 4	2	0	20	h			0	f	0	0	f	h		2g
* v lryr:e- ds Bdai	0*	07B*	0*	0*	07B*	h		f 00*	f 00*	0*	0*	f 00*	h			f f 7 *	27 *	f 27t*	0*	37t*	h			0*	I 7g*	0*	0*	f 7t*	h		27D*
l ei e-G0as-	h	h	h	h	h	24		h	h	h	h	h	D8			h	h	h	h	h	l f			h	h	h	h	h	40		
* l ei e-G0as-	h	h	h	h	hg37t*			h	h	h	h	hg(7t*				h	h	h	h	h(47t*				h	h	h	h	h(g7t*		h	
v lryr:e- ds Aad--Ra:L	h	h	h	h	h	4		h	h	h	h	h	(			h	h	h	h	h	2			h	h	h	h	h	f		
* v lryr:e- ds Aad--Ra:L	h	h	h	h	hf 8D*			h	h	h	h	hf 7D*				h	h	h	h	h I D*				h	h	h	h	h 2D*		h	

(l ei e-G0as- asi v lryr:e- ds Aad--Ra:L79t 9 e.Ç Bt B IP) Ç Tt T) ca, Wt Wil uos

5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

Tue May 3, 2022
AM Peak (8:30 AM - 9:30 AM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 947992, Location: 45.399896, -75.686563

Provided 1y: City obf ttawa
C00 Constellation Dr,
Nepean, f N, K2G 5J9, CA



5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

Tue May 3, 2022

Ld cH el . yh- I(ý i b f (2Ba
t 00 - i s 9(2 AaCE s k d
OeNeas, f O, p 2K 4(n - :

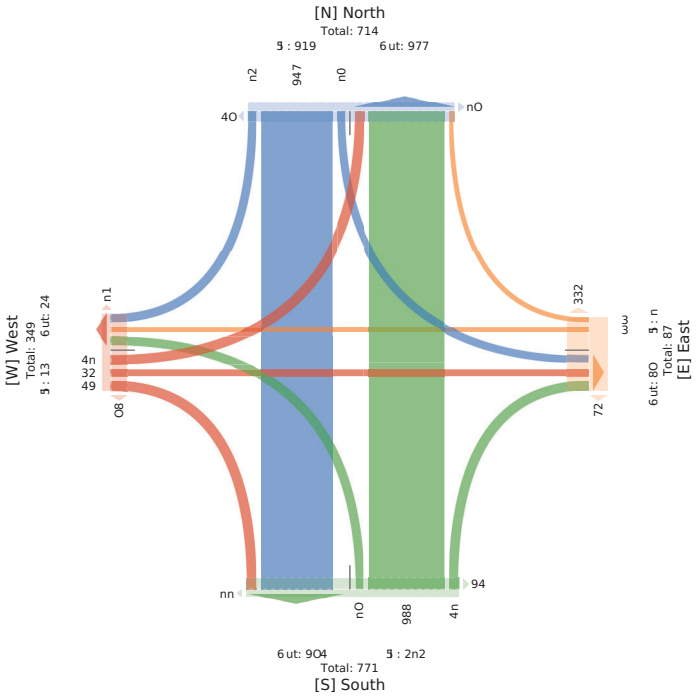
1eP k fikeoCl s	Oi dCj Ei uCj . i usl							J a0C S e9Ci usl								Ei uCj Oi dCj . i usl								S e9C: J a9Ci usl							
TIRe	v	T	1	W	: NN	Lel U		v	T	1	W	: NN	Lel U			v	T	1	W	: NN	Lel U			v	T	1	W	: NN	Lel U		wC
2022(04(03 t 2I80LM	8	n8	3	0	t 0m	t 8		0	0	0	0	0	14			D	t t 5	4	0	t 28	28			m	3	m	0	2t	30		248
t 2I 4LM	t	t 23	t t	0	t 34	2I		t	t	0	0	2	58			D	t t 2	4	0	t 2I	t 5			5	4	t 2	0	23	23		28I
t l00LM	m	t 0D	2	0	t t 8	t t		0	0	0	0	0	10			t 0	t 25	D	0	t t 3	t 4			t 2	3	4	0	20	30		28t
t ht 4LM	D	t t t	I	0	t 22	t t		0	0	0	0	0	4D			8	t t 2	t 0	0	t 30	5			D	I	5	0	t D	2t		25m
Ti GA	24	I 3m	20	0	I 8I	5I		t	t	0	0	2	2t 0			32	I 55	2D	0	424	54			3I	t 4	32	0	8t	t 0I		t 0n2
* : NNdao)	42t*	n0D*	I 7 *	0*	(	(		40D*	40D*	0*	0*	(	(			5 7 *	88 7B*	47 *	0*	(	(			I 2D*	t 87t*	3n8t*	0*	(	(		(
* Ti GA	27B*	I 0 2*	t 7B*	0*	I I 7B*	(		0 7 *	0 7 *	0*	0*	0 72*	(			2 7nf	I 2D*	27t*	0*	I 8I *	(			3 7 *	t 7 *	2 7nf	0*	DI *	(		(
Lr %	0 75nI	07n0t	07 44	(	07n04	(		(	(	(	(	(	(			07B5(	07n85	075nI	(	07n2m	(			07B00	07D0	0755D	(	07B I 8	(		07n48
1IP)G asl Mi Gdoyoa9	24	3n8	t m	0	I I 2	(		0	0	0	0	0	(			30	I 24	2I	0	I Dn	(			32	t 2	32	0	D5	(		mD
* 1IP)G asl Mi Gdoyoa9	t 00*	n0D*	n4D*	0*	nt 7B*	(		0*	0*	0*	0*	0*	(			n87t*	nt 7 *	887nf	0*	nt 2*	(			nt 2 *	80D*	t 00*	0*	n8 7B*	(		nt 7*
r eacy	0	3t	t	0	32	(		0	0	0	0	0	(			t	32	t	0	3I	(			0	2	0	0	2	(		58
* r eacy	0*	DI *	4D*	0*	57*	(		0*	0*	0*	0*	0*	(			3 7 *	57nf	3D*	0*	57t*	(			0*	t 37t*	0*	0*	27t*	(		52*
Hl eyoa9 i s v i al	0	t 0	0	0	t 0	(		t	t	0	0	2	(			t	m	2	0	t 2	(			2	t	0	0	3	(		2D
* Hl eyoa9 i s v i al	0*	27*	0*	0*	2I *	(		t 00*	t 00*	0*	0*	t 00*	(			3I *	t 7nf	DI *	0*	23*	(			47nf	57D*	0*	0*	3D*	(		27t*
Lel e9Gdas9	(	(	(	(	(	52		(	(	(	(	(	208			(	(	(	(	(	54			(	(	(	(	(	t 02		
* Lel e9Gdas9	(	(	(	(	(n5 7nf			(	(	(	(	(nn0D*				(	(	(	(	(t 00*				(	(	(	(	(nI 7 *		(
Hl eyoa9 i s - d 99Ba	(	(	(	(	(	2		(	(	(	(	(	2			(	(	(	(	(	0			(	(	(	(	(	2		
* Hl eyoa9 i s - d 99Ba	(	(	(	(	3I *			(	(	(	(	(7D*				(	(	(	(	0*				(	(	(	(	t 7nf		(

(Lel e9Gdas9 asl Hl eyoa9 i s - d 99Ba7 1 h1 ebÇ v hv IP) Ç Th T) du, Wh W Tuds

5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

Tue May 3, 2022
MAPPay kea(8 2-30 kM 9: -30 kM)
l (Cs GilLeLi8 AghtLanP Mdtdcryr@L, c eaHy, kePeIIoAnL, v Atyr@Ldn BdaP, v Atyr@Ldn s odl1LRa(C)
l (CMdHewentL
nl - D47DD2, i dratAln- 45.3DD6Dl, 975.161513

Ottawa
kodHPeP by- s Aty df OttaRa
: 00 s dnIteC@tAln I q,
Nepean, ON, K2G 5JD, s l



5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

Tue May 3, 2022
FM Feal Ing h FM (hg h FM6(: Ae-a99Feal 1 Pu-
) 99C9sses Li dbr cs aHv MPeP-ByBEes, 1 eaAy, Fevesc-dsHs, RdEyBEes PHwPav, RdEyBEes PH
C-Pssk a9 l 6
) 99MPAemeHs
IDg4n7442, i PBacPHgnh84454. , (7h8 5. h. 3

Ottawa
F-PAdvev bygCdy Pf : @ak a
t 00 CPHkce9lacPHD-,
OeNeaH (: O, p 2K hG, C)

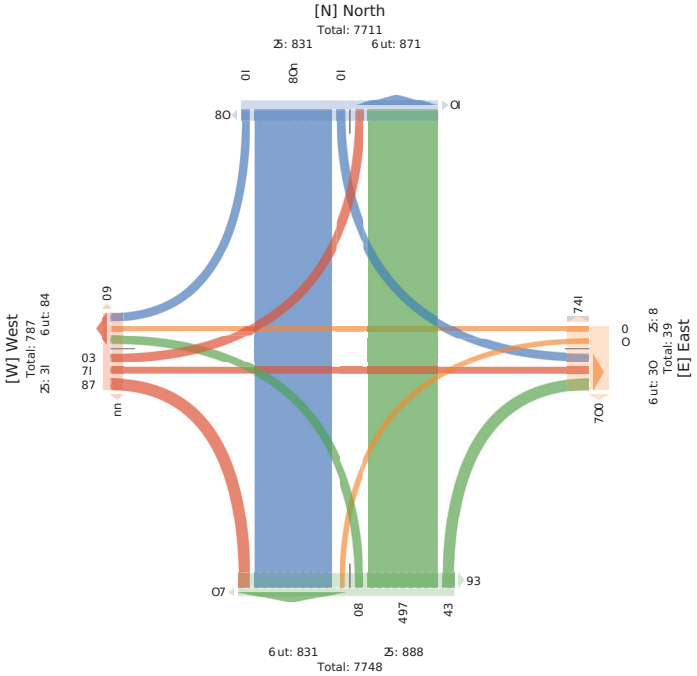
i eo DdeBdPH	OP-cr EPuer bPuHv						Jasc S esdbPuHv						EPuer OP-cr bPuHv						S esc JasdbPuHv						
Time	w	T	i	W	) NN	FevU	w	T	i	W	) NN	FevU	w	T	i	W	) NN	FevU	w	T	i	W	) NN	FevU	Int
2022(0h(03 ng hFM	h	t t n	5	0	t 27	22	0	0	t	0	t	7h	t 2	t 25	.	0	t n.	30	t n	7	5	0	24	23	303
ng80FM	5	t n7	4	0	t . n	20	0	t	0	0	t	. n	t t	t t 4	n	0	t 3n	t 5	t n	3	n	0	2t	t 7	320
ngnhFM	7	t 33	.	0	t n.	t .	0	0	2	0	2	. 5	t 3	t t n	5	0	t 3h	3h	t t	n	t t	0	2.	27	304
hg00FM	7	t n2	n	0	t h3	32	0	t	0	0	t	72	t 3	t 20	7	0	t n0	37	t 2	3	.	0	2t	27	3t h
TPa9	27	h3.	27	0	h40	40	0	2	3	0	h	274	n4	n5t	2h	0	hhh	t 20	ht	t 7	24	0	47	4n	t 2n7
***) NNPaEt**	n8 *	40t5*	n8 *	0*	(	(	0*	n00P*	. 08P*	0*	(	(	58*	5. 8P*	n8h*	0*	(	(	h28 *	t 78h*	248t*	0*	(	(	(
*** TPa9**	28P*	n30P*	28P*	0*	n78P*	(	0*	08P*	08P*	0*	08h*	(	38t*	358 *	28P*	0*	nn8h*	(	n8 *	t 8h*	28t*	0*	78P*	(	(
F1 %	08h7	0840.	08P22		(08543	(	(	(	(	(	(	(	08t 7	0842h	08h7		(08t25	(	08h7	08h7t	08 h4		(08t50	(	08t. h
i dbr cs aHv MPeP-ByBEes	2n	h0h	2h	0	hhn	(	0	0	0	0	0	(	nn	nh.	2n	0	h2n	(	n5	t .	24	0	43	(	t t 7t
*** i dbr cs aHv MPeP-ByBEes**	558t*	4n82*	428 *	0*	4388*	(	0*	0*	0*	0*	0*	(	548P*	4n85*	4. 8P*	0*	4nhh*	(	4n8 *	4n8 *	t 00*	0*	4h8t*	(	438t*
1 eaAy	0	t 3	t	0	t n	(	0	0	0	0	0	(	0	t n	0	0	t n	(	t	0	0	0	t	(	24
*** 1 eaAy**	0*	28h*	38*	0*	28h*	(	0*	0*	0*	0*	0*	(	0*	28t*	0*	0*	28h*	(	20P*	0*	0*	0*	t 8P*	(	288*
RdEyBEes PHwPav	3	t 5	t	0	22	(	0	2	3	0	h	(	h	t t	t	0	t 7	(	2	t	0	0	3	(	n7
*** RdEyBEes PHwPav**	t t8 *	38h*	38*	0*	38P*	(	0*	t 00*	t 00*	0*	t 00*	(	t 02*	28P*	n8P*	0*	38 *	(	38t*	h8t*	0*	0*	38 *	(	38P*
Fevesc-dsHs	(	(	(	(	(	5t	(	(	(	(	(	273	(	(	(	(	(	t 20	(	(	(	(	(	4t	
* Fevesc-dsHs	(	(	(	(	(408*		(	(	(	(	(478*		(	(	(	(	(t 00*		(	(	(	(	(4. 8*		(
RdEyBEes PHC-Pssk a9	(	(	(	(	(	4	(	(	(	(	(	.	(	(	(	(	(	0	(	(	(	(	(	3	
* RdEyBEes PHC-Pssk a9	(	(	(	(	(t 08*		(	(	(	(	(28P*		(	(	(	(	(	0*	(	(	(	(	(38*		(

[1]Fevesc-dsHs aHv RdEyBEes PHC-Pssk a9 8i gi efc, wgwbr c, TgTr -u, WgW Tu-H

5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

Tue May 3, 2022
AM AeaP k(8 - AM 9 - 8 - AM) 91 CesaILAeaP i gus
h ILt lamen kd r cH avB MgIgsRyBen, i eaCy, AeBenskavn, wdRyBen gv mgaB, wdRyBen gv
t sgmnl alP)
h ILMgCeDevH
47 85(. 552, d gRaHgv8(- G5515b, 9 - 6b1b- b3

Ottawa
AsgCaBeBf y8t dHy gCl HH1 a
: 00 t gvnHlaHgv 7 s,
Nepeav, l N, K2G - J5, t h



5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

Tue May 3, 2022
Full Length (6:30 AM-9:30 AM, 11:30 AM-2 PM, 3:30 PM-6 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 947024, Location: 4853 9. . . 2, -. 85678408

Ottawa
Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 8J9, CA

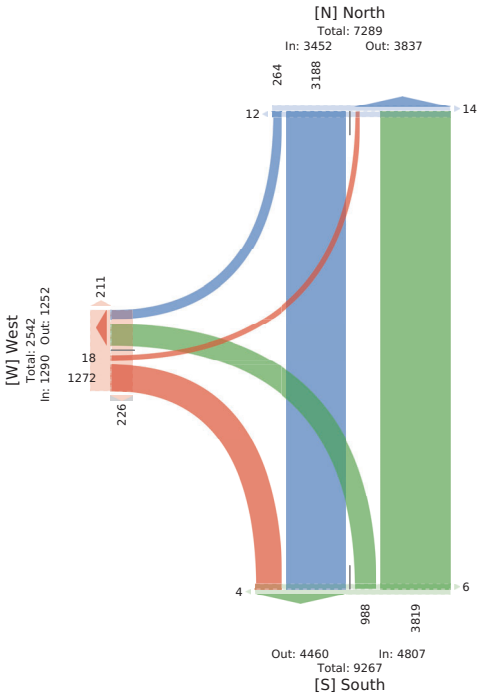
Leg Direction	North Eouthbound					South Northbound					West Westbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2022-08-03 6:00AM	2	. 7	0	70	1	114	26	0	140	0	3.	1	0	37	13	287
. :00AM	1.	237	0	288	3	30.	101	0	407	0	112	1	0	113	20	. . 6
7:00AM	26	314	0	340	2	8. 1	12.	0	697	0	176	1	0	17.	42	1228
9:00AM	8	1. .	0	172	2	284	89	0	313	4	66	3	0	69	17	864
11:00AM	20	207	0	227	2	236	48	0	271	0	6.	1	0	67	28	8. .
12:00PM	36	410	0	446	6	467	104	0	8. 2	2	181	2	0	183	60	11. 1
1:00PM	36	430	0	466	4	496	92	0	877	1	14.	3	0	180	69	1204
3:00PM	31	272	0	313	3	267	. 9	0	34.	1	77	0	0	77	39	. 47
4:00PM	43	83.	0	870	1	889	209	0	. 67	0	231	3	0	234	66	1872
8:00PM	47	814	0	862	2	846	146	0	692	2	17.	3	0	190	78	1444
Total	264	3177	0	3482	26	3719	977	0	470.	10	12. 2	17	0	1290	43.	9849
% Approach	. 5%	925%	0%	-	-	. 95%	205%	0%	-	-	975%	15%	0%	-	-	-
% Total	25%	335%	0%	3652%	-	405%	105%	0%	8052%	-	135%	05%	0%	1338%	-	-
Lights and Motorcycles	282	2929	0	3171	-	3813	988	0	4467	-	1226	17	0	1244	-	7793
% Lights and Motorcycles	983%	915%	0%	9251%	-	923%	965 %	0%	9259%	-	965%	100%	0%	9654%	-	933%
Heavy	8	18.	0	162	-	166	11	0	1. .	-	4	0	0	4	-	343
% Heavy	15%	45%	0%	45 %	-	45%	15%	0%	35 %	-	05%	0%	0%	05%	-	35%
Bicycles on Road	.	102	0	109	-	140	22	0	162	-	42	0	0	42	-	313
% Bicycles on Road	25 %	35%	0%	35%	-	35 %	25%	0%	35%	-	35%	0%	0%	35%	-	35%
Pedestrians	-	-	-	-	21	-	-	-	-	10	-	-	-	-	420	
% Pedestrians	-	-	-	-	705%	-	-	-	-	100%	-	-	-	-	963%	-
Bicycles on Crosswalk	-	-	-	-	8	-	-	-	-	0	-	-	-	-	1.	
% Bicycles on Crosswalk	-	-	-	-	195%	-	-	-	-	0%	-	-	-	-	35%	-

*Pedestrians and Bicycles on Crosswalk5L: Left, R: Right, T: Thru, U: U-Turn

5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

Tue May 3, 2022
Full Length (6:30 AM-9:30 AM, 11:30 AM-2 PM, 3:30 PM-6 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 947024, Location: 485 9. . . 2, -. 85 578408

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 8J9, CA



5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

Tue May 3, 2022
F M l eaL ngth(F M 6: th(F MA
F – 9 -a1le1 nP)Gsi1 ado Mr ir chJyHe1, v eaBy, l eoe lic)ad1, R)HJyHe1 r d wr ao, R)HJyHe1 r d 9 cr 11k a-LA
F – Mr Bemedi1
IDt : 4g024, Pr Hai)r dt 4(73: 8882, 68(75g(40(

l cr Bjoeo . yt 9)iy r b f iiak a
h00 9 r d1ie–ai)r d Dc,
OeNead, f O, p 2K (G , 9 F

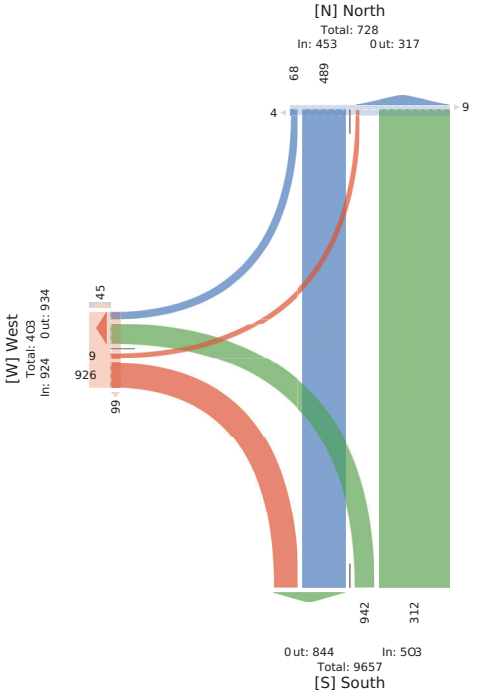
PeC DjceHJr d	Orcis Jr uis . r udo					Jr uis Orcis . r udo					E e1i Sali . r udo					
Tjme	w	T	W	F NN	l eoU	T	P	W	F NN	l eoU	w	P	W	F NN	l eoU	Idi
20226)(603 gth(F M	8	5(	0	82	0	h23	2:	0	h(2	0	4h	0	0	4h	h3	25(
gt30F M	h0	8(	0	g(	2	h((	34	0	hg:	0	(h	0	0	(h	hg	32(
gt4(F M	(	hh0	0	hh(	0	hg(	38	0	222	0	(4	0	0	(4	8	3: h
: t00F M	3	h0h	0	h04	2	h4(	3g	0	hg3	0	35	h	0	38	h0	324
Tr ia-	2(	3(h	0	**385**	4	50g	h3g	0	**845**	0	hg2	h	0	**hg3**	4g	**h30(**
*** F NNr aLk**	57 5*	: 37 4*	0*	**6**	6	gh7(*	hg7(*	0*	**6**	6	: : 7(*	07(*	0*	**6**	6	6
*** Tr ia-**	h7 *	257 *	0*	**2g2g***	6	457 5*	h075*	0*	**(872***	6	h37 *	07h*	0*	**h470***	6	6
l v %	075 2(	078: 5	6	**07gh5**	6	07gh8	07g52	6	**07g2:**	6	07g24	072(0	6	**07g2:**	6	07g2(
P)Gsi1 ado Mr ir chJyHe1	24	330	0	**3(4**	6	(3h	h2:	0	**550**	6	h88	h	0	**h8g**	6	hh: 2
*** P)Gsi1 ado Mr ir chJyHe1**	: 57 0*	: 47 0*	0*	**: 47 h***	6	g873*	: 37 (*	0*	**887(***	6	: 87 5*	h00*	0*	**: 872***	6	: h75*
v eaBy	h	h8	0	**hg**	6	4h	2	0	**43**	6	h	0	0	**h**	6	52
*** v eaBy**	47 0*	47g*	0*	**47g***	6	57 8*	h7 h*	0*	**(7g***	6	07(*	0*	0*	**07(***	6	47g*
R)HJyHe1 r d wr ao	0	4	0	**4**	6	35	8	0	**43**	6	4	0	0	**4**	6	(h
*** R)HJyHe1 r d wr ao**	0*	h7 h*	0*	**h7 h***	6	(7 *	(h7 *	0*	**(7g***	6	27 2*	0*	0*	**272***	6	37 *
l eoe lic)ad1	6	6	6	6	2	6	6	6	6	0	6	6	6	6	48	
* l eoe lic)ad1	6	6	6	6	(07)*	6	6	6	6	6	6	6	6	6	: 87 *	6
R)HJyHe1 r d 9 cr 11k a-L	6	6	6	6	2	6	6	6	6	0	6	6	6	6	h	
* R)HJyHe1 r d 9 cr 11k a-L	6	6	6	6	(07)*	6	6	6	6	6	6	6	6	6	27h*	6

L) l eoe lic)ad1 ado R)HJyHe1 r d 9 cr 11k a-L7Pt Pe bi, wt w)Csi, Tt Ts cu, Wt W6Tucd

5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

Tue May 3, 2022
AM Peak (8:- 9 AM) l :- 9 AMC
Ass Lsai i ei (ght nd aor Mcd cHyvsei, BeaRy, Per eidHnoi, whyyvsei co mcar, whyyvsei co LHti i l askC
Ass McReDeod
47 : l 58025, g cvadr co: 59.3l 6662,)69.189509

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 8J9, CA



5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

Tue May 3, 2022
MI l ay Lean g 2i80 LM (t i30 LM6
: A- A39e9 gl lP) Gas l Mi Gdoyo A9, r eacy, Lel e9Gdas 9, HIoyo A9 i s v i al , HIoyo A9 i s
- d 99Ba A6
: AMi ceRes G
vk hm I D2I , 1 i oa Gi shI 473 m8882, (847 5D4I 04

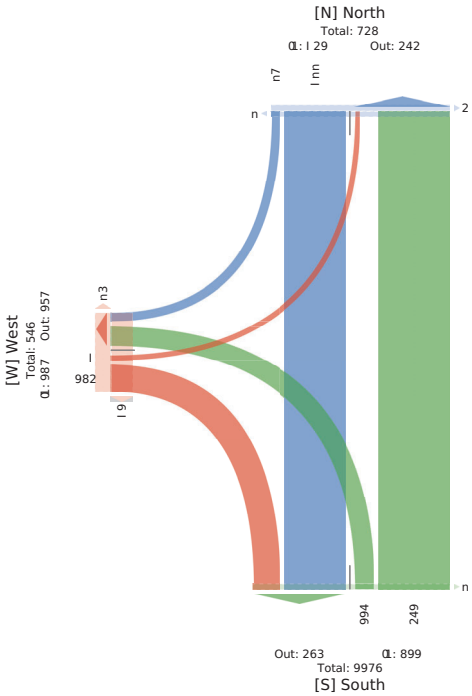
Ldi cfl el . yh- Ry i b f GaBa
t 00 - i s9GAaGi s k d,
OeNeas, f O, p 2K 4Gn - :

1eP k ke oGis	Oi dj Ji uj . i us l					Ji uj Oi dj . i us l					E e9C Sa9Ci us l					
TIRe	v	T	W	: NN	Lel U	T	1	W	: NN	Lel U	v	1	W	: NN	Lel U	wC
2022(04(03 t 2I80LM	D	m2	0	**t 00**	0	t 22	34	0	**t 48**	2	34	2	0	**38**	t 8	**2nI**
t 2I 4LM	D	t t 2	0	**t 20**	4	t 23	28	0	**t 40**	0	I 5	0	0	**I 5**	t 5	**3t 5**
t I00LM	4	t t 4	0	**t 20**	t	t 35	23	0	**t 4m**	0	40	t	0	**4t**	t 4	**330**
t h 4LM	D	t 03	0	**t t t**	t	t 20	24	0	**t I 4**	0	3I	t	0	**34**	20	**2m**
Ti GA	2m	I 22	0	**I 4t**	8	40t	t t 0	0	**5t t**	2	t 54	I	0	**t 5m**	5D	**t 23t**
*** : NNi ao)**	5 I *	m I 5*	0*	**(**	(	I D D*	t D0*	0*	**(**	(	m I 5*	2 I *	0*	**(**	(	(
*** Ti GA**	2 I *	3I 7 5*	0*	**355***	(	10 I 8*	I 8m	0*	**I m5***	(	t 3I *	07 5*	0*	**t 3I 8***	(	(
Lr %	07h05	07h08	(	**07h80**	(	07h2I	0 I B D	(	**07h54**	(	07 I I	07h00	(	**07 I I 8**	(	07h8I
I P)Gas l Mi Gdoyo A9	2D	3D I	0	**I t 3**	(	I 5I	t t 0	0	**48I**	(	t 5t	I	0	**t 54**	(	t t 42
*** I P)Gas l Mi Gdoyo A9**	m5 7 5*	m I 2*	0*	**m I 5***	(	m2 7 5*	t 00*	0*	**m2 m***	(	m I 5*	t 00*	0*	**m I 5***	(	m I 5*
r eacy	t	24	0	**25**	(	2I	0	0	**2I**	(	t	0	0	**t**	(	4t
*** r eacy**	3 I *	47m*	0*	**47 I***	(	I 7 I*	0*	0*	**37m***	(	07 5*	0*	0*	**07 5***	(	I 7 *
HIoyo A9 i s v i al	0	t 2	0	**t 2**	(	t 3	0	0	**t 3**	(	3	0	0	**3**	(	2D
*** HIoyo A9 i s v i al**	0*	2 I 7*	0*	**27 8***	(	27 5*	0*	0*	**27 I ***	(	t I 7*	0*	0*	**t I 7***	(	27 8*
Lel e9Gdas 9	(	(	(	(	5	(	(	(	(	2	(	(	(	(	58	
* Lel e9Gdas 9	(	(	(	(	D I 7 5*	(	(	(	(	t 00*	(	(	(	(	n I 3I *	(
HIoyo A9 i s - d 99Ba A6	(	(	(	(	t	(	(	(	(	0	(	(	(	(	t	
* HIoyo A9 i s - d 99Ba A6	(	(	(	(	t I 7 5*	(	(	(	(	0*	(	(	(	(	t 7 I *	(

L) Lel e9Gdas 9 as l HIoyo A9 i s - d 99Ba A6 7 1 h l eb C, v hv IP) Ç ThT) du, Wh W(Tucs

5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

Tue May 3, 2022
MAPPay kea(8 2-30 kM 9: -30 kM)
l (Cs GilLeL.8 AghtLanP Mdtdcryr@L, c eaHy, kePeIIoAnL, v Atyr@Ldn BdaP, v Atyr@Ldn s odl1RaC( )
l (CMdHewentL
nh - D47024, i dratAln- 45.3D6662, 965.175405



kdHPeP by- s Aty df OttaRa
: 00 s dnIteGitAln I q
Nepean, ON, K2G 5JD, s l

5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

Tue May 3, 2022
FM Feal l3rgt FM hgrgt FM(h6 : eAu-- Feal 9 1uA
P --) -aCCeCls idorCacHM1r1Ayv-eC, 9 ea: y, FeHeGiAacC, Bivyv-eC1c R1aH, Bivyv-eC1c
) AlCGwa-l (
P -- M1: ek ecrC
nh nDg402g, s 1vari1cngt 73D8882, h8t 754t g0t

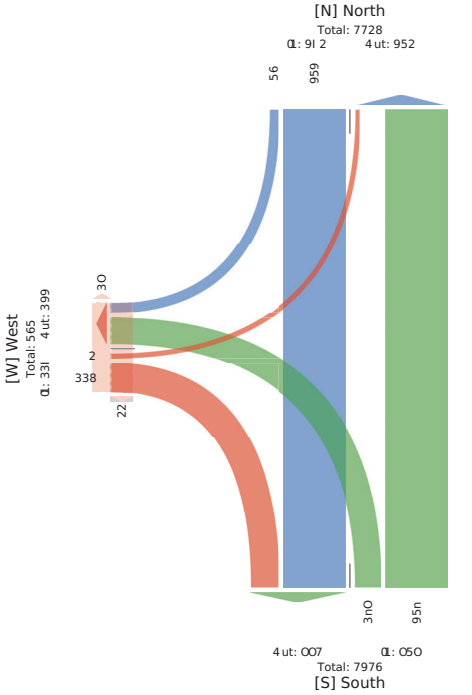
FA1: iHeH. yn) iry 1b6 nawa
f 00) 1cGe--ari1c I A
OeNeac, 6 O, p 2K t C1) P

s ed I iAevri1c	O1Ao J 1uo. 1ucH				J 1uro O1Ao. 1ucH				E eG SaG. 1ucH				
Tik e	R	T	W	P NN	FeHL	T	s	W	P NN	FeHL	R	s	W	P NN	FeHL mr
2022h0t h03 3ugt FM	f 5	f g2	0	f t 4	0	f g0	35	0	f 85	0	t 3	0	0	t 3	f 3 348
gu00FM	f 4	f 3f	0	f gD	0	f f D	t 8	0	f 85	0	g8	2	0	gD	f 5 38g
guf t FM	f f	f 33	0	f gg	0	f g0	82	0	2f 2	0	80	f	0	8f	f t g28
gu80FM	3	f 3D	0	f g2	0	f gf	g2	0	f 43	0	t 5	0	0	t 5	f 5 34f
T1ns-	g4	t gt	0	t D8	0	t g0	208	0	8g8	0	225	3	0	22D	50 f t 5D
* P NN tavo	47*	D7 2*	0*	h	h	827*	287*	0*	h	h	D78*	f 7*	0*	h	h h
* T1ns-	37*	3g8*	0*	387*	h	3g8*	f 37*	0*	g87*	h	f g8*	07*	0*	fg7*	h h
P9 %	07* 3	07 8D	h	07 D8	h	07 D 3	07 832	h	07 8D	h	07 f 3	07 88t	h	07 f 2	h 07 D2g
s idorCacHM1r1Ayv-eC	g5	t 0D	0	t t t	h	t 0D	203	0	8f 2	h	22f	3	0	22g	h f gD f
* s idorCacHM1r1Ayv-eC	D 7*	D8 8*	0*	D875*	h	D8 7*	D 7*	0*	D 7*	h	D87*	f 00*	0*	D87*	h D 70* h
9 ea: y	f	f t	0	f 5	h	f 8	2	0	f D	h	0	0	0	0	h 3t
* 9 ea: y	2f*	27*	0*	2f*	h	3f*	f 70*	0*	2f*	h	0*	0*	0*	0*	h 2f*
Bivyv-eC1c R1aH	f	2f	0	22	h	f g	2	0	f 5	h	t	0	0	t	h g3
* Bivyv-eC1c R1aH	2f*	37*	0*	37*	h	2f5*	f 70*	0*	2f*	h	2f*	0*	0*	2f*	h 2f*
FeHeGiAacC	h	h	h	h	0	h	h	h	h	0	h	h	h	h	t 8
* FeHeGiAacC	h	h	h	h	h	h	h	h	h	h	h	h	h	h	D 70* h
Bivyv-eC1c) AlCGwa-l	h	h	h	h	0	h	h	h	h	0	h	h	h	h	3
* Bivyv-eC1c) AlCGwa-l	h	h	h	h	h	h	h	h	h	h	h	h	h	h	t 70* h

L FeHeGiAacCacHBivyv-eC1c) AlCGwa-l 7s ns eIr, RnRidor, TnToAu, VhVhiTuAt

5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

Tue May 3, 2022
AM AeaP k3(8: AM - 8(8: AM9-) l eCass AeaP L i uC
g ss h sat tet kn dor ct aHv Mi ci CByBset, L eal y, Aevet cGaH, RdByBset i Hwi av, RdByBset i H
h Gi t t mas P9
g ss Mi l el eHit
I3i (785028, n i Eacd H(8: .376662, -6: .15: 80:



AG1 dvev by(h dy i f) ccama
O00 h i HI cessacd H4 Ç
NepeaH,) N, K2G : J7, h g

5566814 - COVID - BANK ST @ ECHO DR - MAY 03... - TMC

Tue May 3, 2022
Full Length (6:30 AM-9:30 AM, 11:30 AM-2 PM, 3:30 PM-6 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 947081, Location: 485 987. 9, -. 85 574334

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 8J9, CA

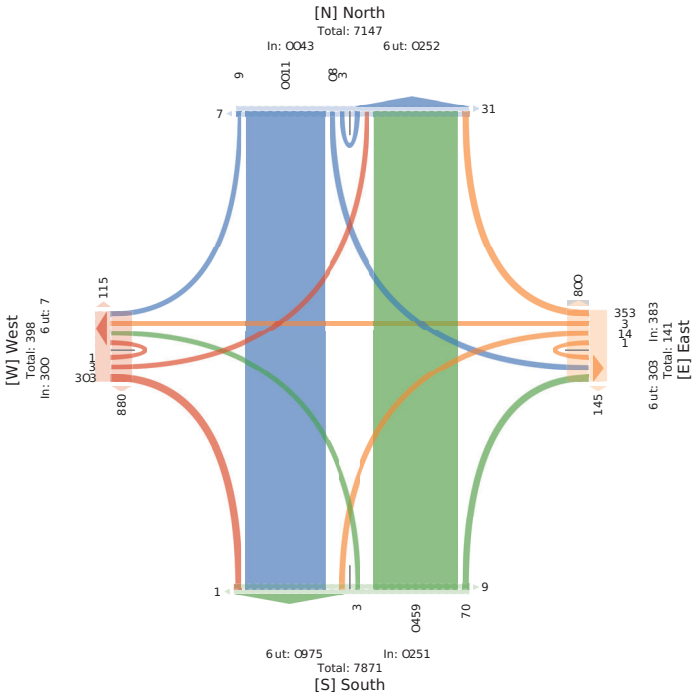
Leg Direction	North Southbound						East Westbound						South Northbound						West Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2022-08-03 6:00AM	0	118	0	0	118	0	1	0	0	0	1	12	0	140	0	0	140	0	1	0	0	0	1	17	28.
. :00AM	0	340	1	0	341	2	7	0	1	0	9	16	7	403	0	0	411	2	14	0	0	0	14	2.	. . 8
7:00AM	0	494	2	0	496	4	9	0	0	0	9	43	6	694	0	0	. 00	0	17	0	0	0	17	. 0	1223
9:00AM	0	242	4	0	246	0	4	0	1	0	8	14	4	30.	0	0	311	1	4	0	0	0	4	24	866
11:00AM	0	267	4	0	2. 2	2	8	0	0	0	8	20	3	277	0	0	291	0	7	0	0	0	7	36	8. 6
12:00PM	0	880	7	0	887	1	9	1	9	1	20	. 2	13	862	1	0	8. 6	0	16	0	1	0	1.	69	11. 1
1:00PM	0	8. 2	10	0	872	0	28	0	.	1	33	97	26	84.	0	0	8. 3	3	14	0	0	0	14	63	1202
3:00PM	1	3. 1	2	0	3. 4	1	9	0	1	0	10	71	.	326	0	0	333	0	11	0	0	0	11	81	. 27
4:00PM	2	. 70	6	0	. 77	1	17	0	4	0	22	127	17	. 88	0	0	. . 3	0	23	0	0	0	23	112	1606
8:00PM	2	690	6	1	699	10	13	0	4	0	1.	130	11	673	0	0	694	1	32	0	0	2	34	76	1444
Total	8	4422	43	1	44. 1	21	101	1	2.	2	131	614	96	4. 08	1	0	4702		141	0	1	2	144	886	9847
% Approach	0 3%	97 5%	1 3%	0%	-	-	. . 5%	0 5%	20 3%	1 5%	-	-	2 3%	97 3%	0%	0%	-	-	9. 5%	0%	0 5 %	1 5%	-	-	-
% Total	0 3%	46 5%	0 3%	0%	46 5%	-	1 5%	0%	0 5%	0%	1 5%	-	1 3%	49 5%	0%	0%	80 5%	-	1 5%	0%	0%	0%	1 5%	-	-
Lights and Motorcycles	1	4137	40	1	4170	-	. 0	0	26	2	97	-	67	43. 9	0	0	444.	-	138	0	1	2	137	-	7763
% Lights and Motorcycles	20 3%	93 5%	6 %	93 3%	100%	93 3%	-	69 5%	0%	96 5%	100%	. 45 7%	-	0 5%	93 3%	0%	0%	92 5%	-	98 5	% 0%	100%	100%	98 5%	-	92 5%
Heavy	0	162	0	0	162	-	1	0	0	0	1	-	1	170	1	0	172	-	1	0	0	0	1	-	346
% Heavy	0%	35 %	0%	0%	35 5%	-	1 5%	0%	0%	0%	0 5%	-	1 5%	35 7%	100%	0%	35 7%	-	0 5	% 0%	0%	0%	0%	0 5 %	-	35 6%
Bicycles on Road	4	122	3	0	129	-	30	1	1	0	32	-	2.	146	0	0	1. 3	-	8	0	0	0	8	-	339
% Bicycles on Road	70 3%	2 5%	. 3%	0%	2 9%	-	29 5	% 100%	35 %	0%	24 5%	-	27 1%	3 3%	0%	0%	30 3%	-	33 8%	0%	0%	0%	33 8%	-	35 6%
Pedestrians	-	-	-	-	19		-	-	-	-	604		-	-	-	-	6		-	-	-	-	471		
% Pedestrians	-	-	-	-	- 90 3%		-	-	-	-	- 97 5%		-	-	-	-	- 785 %		-	-	-	-	- 76 3%		-
Bicycles on Crosswalk	-	-	-	-	2		-	-	-	-	10		-	-	-	-	1		-	-	-	-	8		
% Bicycles on Crosswalk	-	-	-	-	- 9 3%		-	-	-	-	- 1 3%		-	-	-	-	- 14 5%		-	-	-	-	- 13 3%		-

* Pedestrians and Bicycles on Crosswalk5L: Left, R: Right, T: Thru, U: U-Turn

5566814 - COVID - BANK ST @ ECHO DR - MAY 03... - TMC

Tue May 3, 2022
Full Length (6:30 AM-9:30 AM, 11:30 AM-2 PM, 3:30 PM-6 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 947081, Location: 485987. 9, -. 85574334

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 8J9, CA



5566814 - COVID - BANK ST @ ECHO DR - MAY 03... - TMC

Tue May 3, 2022

Provided by: City of Ottawa

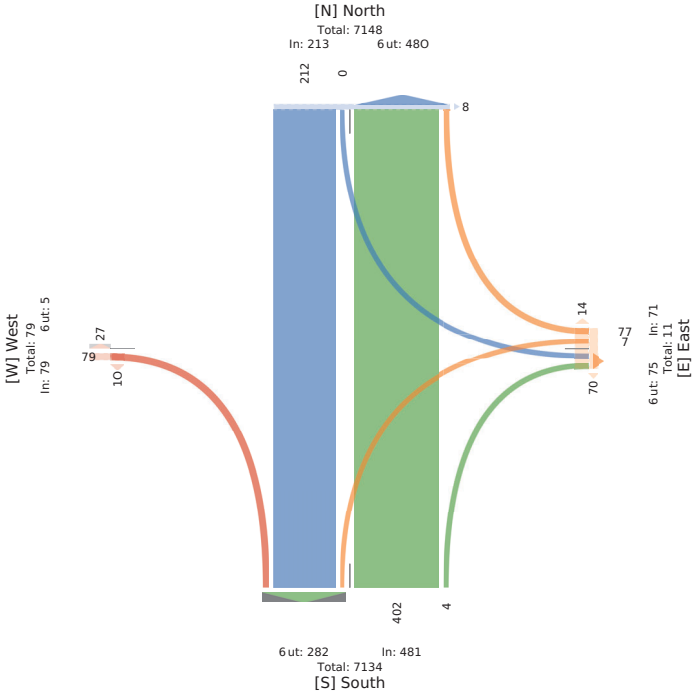
PeC DjceHjrd	Orcis Eruis. rudo							Jali S eli. rudo							Eruis Orcis. rudo							S eli Jali. rudo							
Tjme	w	T	P	W	F NN	l eoU		w	T	P	W	F NN	l eoU		w	T	P	W	F NN	l eoU		w	T	P	W	F NN	l eoU		ldi
2022d0(603 gth(F M	0	h04	0	0	**h04**	h		4	0	0	0	**4**	h2		2	h(4	0	0	**h(5**	0		4	0	0	0	**4**	2(		**25g**
gt30F M	0	h20	h	0	**h2h**	3		4	0	0	0	**4**	h0		3	hg4	0	0	**hg8**	0		(	0	0	0	**(**	23		**3h8**
gt4(F M	0	h(:	0	0	**h(:**	0		0	0	0	0	**0**	h0		h	2h(	0	0	**2h5**	0		g	0	0	0	**g**	hg		**3g3**
:t00F M	0	h42	2	0	**h44**	0		3	0	h	0	**4**	g		h	hg2	0	0	**hg3**	0		2	0	0	0	**2**	hh		**333**
Tria-	0	(2(	3	0	**(2g**	4		hh	0	h	0	**h2**	40		8	83(	0	0	**842**	0		h:	0	0	0	**h:**	88		**h30h**
*** FNNrak**	0*	: :7*	0*	0*	**6**	6		h7*	0*	g7*	0*	**6**	6		07 *	: :7*	0*	0*	**6**	6		h00*	0*	0*	0*	**6**	6		**6**
*** Tria-**	0*	407*	0*	0*	**407***	6		0*	0*	0h*	0*	**07 ***	6		0[*	(5[*	0*	0*	**(87)***	6		h[*	0*	0*	0*	**h[***	6		**6**
l v %	6	07(h4	078(	6	**07(h:**	6		07(	0	6	07(	**07(0**	6		07(	0	6	07(	**07(h**	6		07(: 4	6	6	6	**07(: 4**	6		**07(34**
P)Csi1ado MrircHjHe1	0	(00	3	0	**(03**	6		2	0	h	0	**3**	6		h	55h	0	0	**552**	6		h:	0	0	0	**h:**	6		**hhg8**
*** P)Csi1ado MrircHjHe1**	0*	: (2*	h00*	0*	**: (7***	6		hg2*	0*	h00*	0*	**2(70***	6		h47*	g: 7 *	0*	0*	**g: 2***	6		h00*	0*	0*	0*	**h00***	6		**h7***
v eaHy	0	hg	0	0	**hg**	6		0	0	0	0	**0**	6		0	43	0	0	**43**	6		0	0	0	0	**0**	6		**5h**
*** v eaHy**	0*	37*	0*	0*	**37***	6		0*	0*	0*	0*	**0***	6		0*	(7 *	0*	0*	**(7***	6		0*	0*	0*	0*	**0***	6		**47***
RjHjHe1rd wrao	0	8	0	0	**8**	6		:	0	0	0	**:**	6		5	3h	0	0	**38**	6		0	0	0	0	**0**	6		**(3**
*** RjHjHe1rd wrao**	0*	h7*	0*	0*	**h7***	6		gh7*	0*	0*	0*	**8(70***	6		g(7*	47*	0*	0*	**(70***	6		0*	0*	0*	0*	**0***	6		**47h***
l eoe lic)ad1	6	6	6	6	6	3		6	6	6	6	6	38		6	6	6	6	6	6		6	6	6	6	6	5(		
* l eoe lic)ad1	6	6	6	6	68(70*			6	6	6	6	6: 2(*			6	6	6	6	6	6		6	6	6	6	6g4 7*			6
RjHjHe1rd 9 cr 11k a-L	6	6	6	6	6	h		6	6	6	6	6	3		6	6	6	6	6	6		6	6	6	6	6	h2		
* RjHjHe1rd 9 cr 11k a-L	6	6	6	6	62(70*			6	6	6	6	6 8(*			6	6	6	6	6	6		6	6	6	6	6h(7.*			6

└l eoe lic)ad1 ado R)HjHe1rd 9 cr 11k a-L7Pt Pehi, wt w)Csi, Tt Tscu, Wt W6Tucd

5566814 - COVID - BANK ST @ ECHO DR - MAY 03... - TMC

Tue May 3, 2022
AM Peak (8:-9 AM) l :-9 AMC
Ass Lsai i ei (ghtnd aor Mcd:Hyvsei, BeaRy, Per ei dHnoi, whyyvsei co mcar, whyyvsei co LHtiiI askC
Ass McReDeod
47 : l 5809-, g cvadrco: 59.3l 986l ,)69.185335

PHtRrer by: Lhdy cf Odhl a
-00 Lcoi dessadrco 7 Hj
Nepeao, ON, K2G 9Jl , LA



5566814 - COVID - BANK ST @ ECHO DR - MAY 03... - TMC

Tue May 3, 2022
MHl ay Lean g: 2h80 LM (t h80 LM6
: Av- Ae9e9 gl HP) Csl Mi Cdoyo Ae9, r eacy, Lel e9Cdas9, HHoyo Ae9 i s v i al , HHoyo Ae9 i s
- di 99Ba Aa6
: AMi ceRes C9
vk hm l D04 t , 1 i oa Cl s h l 473 m4 D8 m, (847 5 D 331

Ldi cH el . yh- HÿjbfC Ba
t 00 - i s9CAaCl s k d,
OeNeas, f O, p 2K 4Gn - :

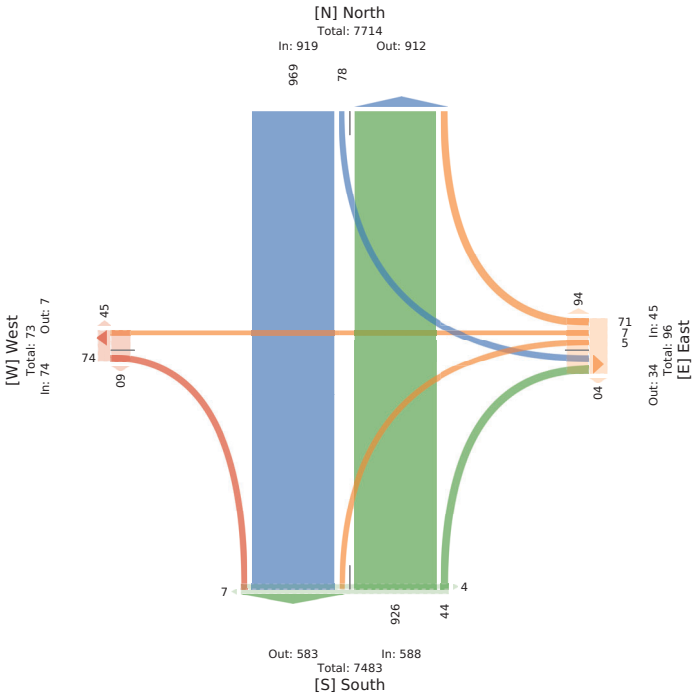
1eP k k6eoCls	Oi d) Ei u(). i us l							Ja9C S e9C i us l							Ei u() Oi d). i us l							S e9C Ja9C i us l							
TlRe	v	T	1	W	: NN	Lel U		v	T	1	W	: NN	Lel U		v	T	1	W	: NN	Lel U		v	T	1	W	: NN	Lel U		**wC**
2022(04(03 t 2h80LM	0	t 24	2	0	**t 28**	0		3	0	0	0	**3**	t 4		I	t 14	0	0	**t Im**	0		I	0	0	0	**I**	20		**2D8**
t 2h 4LM	0	t 4l	t	0	**t 44**	0		2	t	t	0	**I**	24		2	t 45	0	0	**t 4D**	0		3	0	0	0	**3**	t 4		**320**
t h00LM	0	t 5D	4	0	**t 83**	0		4	0	I	0	**m**	25		D	t 18	0	0	**t 44**	0		2	0	0	0	**2**	t I		**33m**
t h 4LM	0	t 3D	2	0	**t I0**	0		m	0	t	0	**t 0**	2D		D	t 30	0	0	**t 3D**	3		3	0	0	0	**3**	22		**2m**
Ti GA	0	4D4	t 0	0	**4m4**	0		t m	t	5	0	**25**	nl		22	48D	0	0	**500**	3		t 2	0	0	0	**t 2**	8t		**t 233**
*** : NNLao)**	0*	m3)*	t 3*	0*	**(**	(		83 I *	3 I)*	23 I *	0*	**(**	(		3 I*	n5 3*	0*	0*	**(**	(		t 00*	0*	0*	0*	**(**	(		**(**
*** Ti GAA**	0*	I 8 I *	0 I)*	0*	**I D3***	(		t 3*	0 I *	0 2*	0*	**2 I ***	(		t I)*	I 5 7nf	0*	0*	**I D3***	(		t I)*	0*	0*	0*	**t I)***	(		**(**
Lr %	(	0 I 85	0 7l00	(	**0 I 54**	(		0 I 3t	(	0 7584	(	**0 53m**	(		0 7508	0 In2l	(	(	**0 2hl 0**	(		0 7840	(	(	(	**0 7840**	(		**0 7h04**
1 P)C9 as l Mi Cdoyo Ae9	0	4 I 1	t 0	0	**44 l**	(		t 8	0	5	0	**23**	(		t 8	43m	0	0	**445**	(		t 2	0	0	0	**t 2**	(		**t t 14**
*** 1 P)C9 as l Mi Cdoyo Ae9**	0*	n3 I)*	t 00*	0*	**n2 I ***	(		Dn I*	0*	t 00*	0*	**D I3***	(		88 I)*	n2 I)*	0*	0*	**n2 I)***	(		t 00*	0*	0*	0*	**t 00***	(		**n2 I)f**
r eacy	0	28	0	0	**28**	(		0	0	0	0	**0**	(		0	23	0	0	**23**	(		0	0	0	0	**0**	(		**40**
*** r eacy**	0*	I 7*	0*	0*	**I 7I***	(		0*	0*	0*	0*	**0***	(		0*	I 7D*	0*	0*	**3 I)***	(		0*	0*	0*	0*	**0***	(		**I 7 ***
HHoyo Ae9 i s v i al	0	t I	0	0	**t I**	(		2	t	0	0	**3**	(		4	t 5	0	0	**2t**	(		0	0	0	0	**0**	(		**3D**
*** HHoyo Ae9 i s v i al**	0*	2 I *	0*	0*	**2 I ***	(		t 0 I*	t 00*	0*	0*	**t t 2***	(		22 I)*	2 I)*	0*	0*	**3 I)***	(		0*	0*	0*	0*	**0***	(		**3 I ***
Lel e9Cdas9	(	(	(	(	(	0		(	(	(	(	(	nl		(	(	(	(	(	3		(	(	(	(	(	8t		
* Lel e9Cdas9	(	(	(	(	(	(		(	(	(	(	(t 00*			(	(	(	(	(t 00*			(	(	(	(	(t 00*			(
HHoyo Ae9 i s - di 99Ba Aa	(	(	(	(	(	0		(	(	(	(	(	0		(	(	(	(	(	0		(	(	(	(	(	0		
* HHoyo Ae9 i s - di 99Ba Aa	(	(	(	(	(	(		(	(	(	(	(	0*		(	(	(	(	(	0*		(	(	(	(	(	0*		(

└Lel e9Cdas9 as l HHoyo Ae9 i s - di 99Ba Aa 71 h l eb C, v hv HP) Ç ThT) du, Wh W(Tucd

5566814 - COVID - BANK ST @ ECHO DR - MAY 03... - TMC

Tue May 3, 2022
MAPPay kea(8 2-30 kM 9: -30 kM)
l (Cs GilLeL8 AghtLanP Mdtdcryr@L, c eaHy, kePeIIoAnL, v Atyr@Ldn BdaP, v Atyr@Ldn s odLLRa(C.)
l (CMdHewentL
nl - D4705: , i dratAln- 45.3D576D 965.174334

kodHAPeP by- s Aty df OttaRa
: 00 s dnIteCitAln I q
Nepean, ON, K2G 5JD, s l



5566814 - COVID - BANK ST @ ECHO DR - MAY 03... - TMC

Tue May 3, 2022
FM Feal In FM gt FMhg(6e:aAVFeal - 9u:
1 AVPAi))e) lCsi do) arc M9o9:HyHk), - ea6y, Fece)ɑsar), v sHyHk) 9r B9ac, v sHyHk) 9r P:9))RaAh
1 AVM96ewer o)
kml Dn40t 7, C9Hao9r I nt 8D1 45D, g5t 8 4n33n

F:96scec byI Psoy 9f (omRa
700 P9r)ceAAɑ9r m:,
OeNear , (O, p 2K t C1, P 1

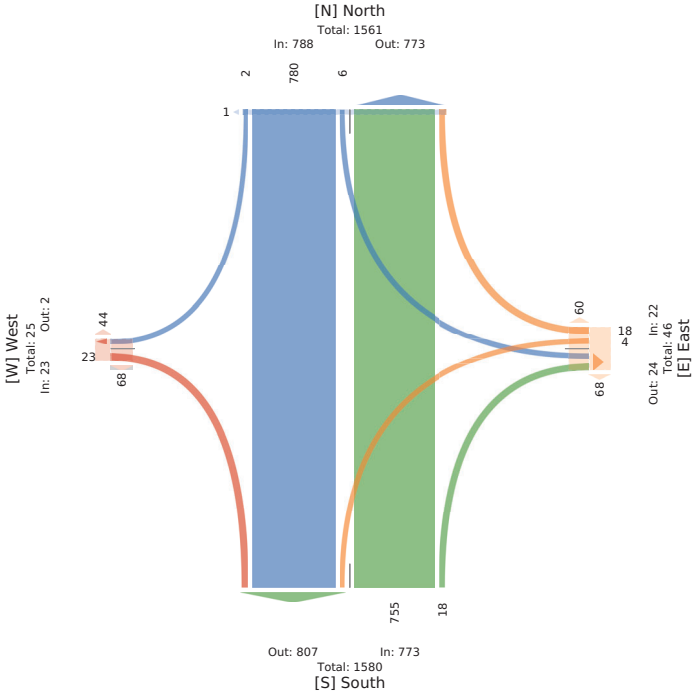
Cei msceHo9r	O9:ɑl E9uɑdb9ur c						J a)o S e)db9ur c						E9uɑl O9:ɑdb9ur c						S e)o J a)db9ur c						
Tswe	B	T	C	W	1 NN	FecU	B	T	C	W	1 NN	FecU	B	T	C	W	1 NN	FecU	B	T	C	W	1 NN	FecU	ke o
2022g0t g03 nI00FM	0	755	t	0	**742**	0	n	0	7	0	**t**	34	2	74n	0	0	**74.**	0	D	0	0	0	**D**	3n	**342**
nI7t FM	0	7D	0	0	**7D**	7	5	0	7	0	**4**	32	3	202	0	0	**20t**	0	3	0	0	0	**3**	3n	**n72**
nI30FM	7	204	0	0	**20D**	0	2	0	0	0	**2**	3t	.	755	0	0	**743**	0	.	0	0	0	**.**	27	**n00**
nInt FM	7	7DD	7	0	**207**	0	t	0	2	0	**5**	23	5	7D2	0	0	**7DD**	0	t	0	0	0	**t**	23	**n72**
T9uɑA	2	540	.	0	**544**	7	74	0	n	0	**22**	724	74	5t t	0	0	**553**	0	23	0	0	0	**23**	772	**7. 0.**
*** 1 NN9aH**	08*	D30*	08t*	0*	**g**	g	478t*	0*	748*	0*	**g**	g	28*	D5t5*	0*	0*	**g**	g	700*	0*	0*	0*	**g**	g	g
*** T9uɑA**	0t7*	n48 *	08h*	0*	**nDt***	g	78*	0*	08t*	0*	**78h***	g	78*	n58*	0*	0*	**n48***	g	78h*	0*	0*	0*	**78h***	g	g
F- %	g	08n2	08t0	g	**08n4**	g	08 t 0	g	08 00	g	**0804**	g	08t 0	08127	g	g	**08t2.**	g	08 3D	g	g	g	**08 3D**	g	08D n
Csi do) arc M9o9:HyHk)	0	530	t	0	**53t**	g	73	0	n	0	**75**	g	7t	57.	0	0	**537**	g	23	0	0	0	**23**	g	7t 0.
*** Csi do) arc M9o9:HyHk)**	0*	D88 *	438*	0*	**D88***	g	528*	0*	700*	0*	**558***	g	438*	Dn8*	0*	0*	**Dn8 ***	g	700*	0*	0*	0*	**700***	g	D84*
- ea6y	0	7.	0	0	**7.**	g	0	0	0	0	**0**	g	0	75	0	0	**75**	g	0	0	0	0	**0**	g	33
*** - ea6y**	0*	28*	0*	0*	**28***	g	0*	0*	0*	0*	**0***	g	0*	28*	0*	0*	**28***	g	0*	0*	0*	0*	**0***	g	28*
v sHyHk) 9r B9ac	2	3n	7	0	**35**	g	t	0	0	0	**t**	g	3	22	0	0	**2t**	g	0	0	0	0	**0**	g	. 5
*** v sHyHk) 9r B9ac**	700*	n8t*	7. 85*	0*	**n85***	g	258*	0*	0*	0*	**2285***	g	7. 85*	28D*	0*	0*	**382***	g	0*	0*	0*	0*	**0***	g	n82*
Fece)ɑsar)	g	g	g	g	g	7	g	g	g	g	g	72t	g	g	g	g	g	0	g	g	g	g	g	D	
* Fece)ɑsar)	g	g	g	g	g	700*	g	g	g	g	g	D58*	g	g	g	g	g	g	g	g	g	g	g	428*	g
v sHyHk) 9r P:9))RaA	g	g	g	g	g	0	g	g	g	g	g	3	g	g	g	g	g	0	g	g	g	g	g	20	
* v sHyHk) 9r P:9))RaA	g	g	g	g	g	0*	g	g	g	g	g	28*	g	g	g	g	g	g	g	g	g	g	g	758D*	g

[1]Fece)ɑsar) ar c v sHyHk) 9r P:9))RaA8CI Cefq BI Bsi dq TI Td:u, Wl WgTu:r

5566814 - COVID - BANK ST @ ECHO DR - MAY 03... - TMC

Tue May 3, 2022
AM AeaP k(AM 8: AM- 89) elaCAeaP s Lul
i (Cg Gihheh k ndoth acHMLrLlvyvCeh, s ea) y, AeHehrl nch, Bnvyv€eh Lc RLaH, Bnvyv€eh Lc g l Lhhwa(P-
i (CML) emecrh
ID47(50: . , t LvamLc4(: G37: 517, 81: 6b5(33(

AlL) rHeHf y4g nry LO9 nawa
. 00 g Lc hreCGmLc Dl,
Nepeac, 9 N, K2G : J7, g i



5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

Tue May 3, 2022
Full Length (6:30 AM-9:30 AM, 11:30 AM-2 PM, 3:30 PM-6 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 947085, Location: 48.3986, -58.674156

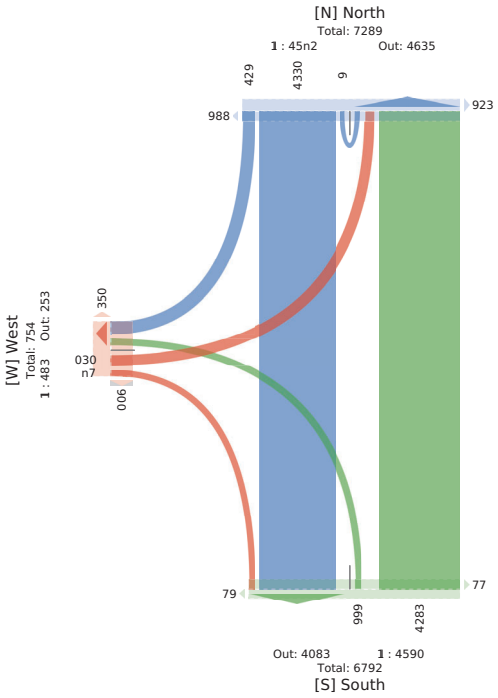
Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 8J9, CA

Leg Direction	North Eouthbound					Eouth Northbound					S est Westbound					
Time	R	T	U	**App**	Ped*	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	**Int**
2022-08-03 6:00AM	15	211	1	**229**	16	238	2	0	**235**	8	0	10	0	**10**	17	**456**
5:00AM	42	476	0	**827**	24	689	18	0	**654**	21	5	89	0	**66**	57	**1267**
7:00AM	84	409	0	**463**	18	815	5	0	**824**	9	4	35	0	**41**	39	**1027**
9:00AM	21	218	0	**236**	6	242	5	0	**249**	5	8	10	0	**18**	20	**800**
11:00AM	38	262	0	**295**	13	277	7	0	**296**	6	1	12	0	**13**	39	**606**
12:00PM	80	830	0	**870**	29	827	15	0	**848**	22	10	44	0	**84**	73	**1159**
1:00PM	49	882	0	**601**	30	811	9	0	**820**	35	13	32	0	**48**	65	**1166**
3:00PM	80	367	0	**417**	21	384	10	0	**364**	10	13	23	0	**36**	84	**717**
4:00PM	65	662	0	**529**	48	626	18	0	**641**	27	12	83	0	**68**	100	**1438**
8:00PM	66	827	0	**894**	83	842	21	0	**863**	48	14	43	0	**85**	103	**1214**
Total	481	4223	1	**4658**	282	4802	111	0	**4613**	190	59	323	0	**402**	601	**9690**
% Approach	9.6%	90.3%	0%	**-**	-	95.6%	2.4%	0%	**-**	-	19.5%	70.3%	0%	**-**	-	-
% Total	4.5%	43.6%	0%	**47.2%**	-	46.8%	1.1%	0%	**45.6%**	-	0.7%	3.3%	0%	**4.1%**	-	-
Lights and Motorcycles	343	4046	0	**4379**	-	4226	105	0	**4333**	-	52	274	0	**386**	-	9057
% Lights and Motorcycles	56.1%	98.7%	0%	**93.9%**	-	93.9%	96.4%	0%	**93.9%**	-	91.1%	75.9%	0%	**77.6%**	-	93.5%
Heavy	15	139	1	**185**	-	149	4	0	**183**	-	8	15	0	**22**	-	332
% Heavy	3.7%	3.3%	100%	**3.4%**	-	3.3%	3.6%	0%	**3.3%**	-	6.3%	8.3%	0%	**8.8%**	-	3.4%
Bicycles on Road	91	37	0	**129**	-	125	0	0	**125**	-	2	22	0	**24**	-	270
% Bicycles on Road	20.2%	0.9%	0%	**2.7%**	-	2.7%	0%	0%	**2.7%**	-	2.8%	6.7%	0%	**6.0%**	-	2.9%
Pedestrians	-	-	-	-	230	-	-	-	-	169	-	-	-	-	473	
% Pedestrians	-	-	-	-	91.3%	-	-	-	-	77.9%	-	-	-	-	70.4%	-
Bicycles on Crosswalk	-	-	-	-	22	-	-	-	-	21	-	-	-	-	117	
% Bicycles on Crosswalk	-	-	-	-	7.5%	-	-	-	-	11.1%	-	-	-	-	19.6%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

Tue May 3, 2022
Full Length (6:30 AM-9:30 AM, 11:30 AM-2 PM, 3:30 PM-6 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 947085, Location: 48.3986, -58.674156



Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 8J9, CA

5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

Tue May 3, 2022
F M l eaL ngth(F M 6: th(F MA
F – 9 -a1le1 nP)Gsi1 ado Mr ir cHyHe1, v eaBy, l eoe lic)ad1, R)HyHe1 r d wr ao, R)HyHe1 r d 9 cr 11k a-LA
F – Mr Bemedi1
IDt 47: 0(g, Pr Hai)r dt 7(84(5, 6g(85: 7hg5

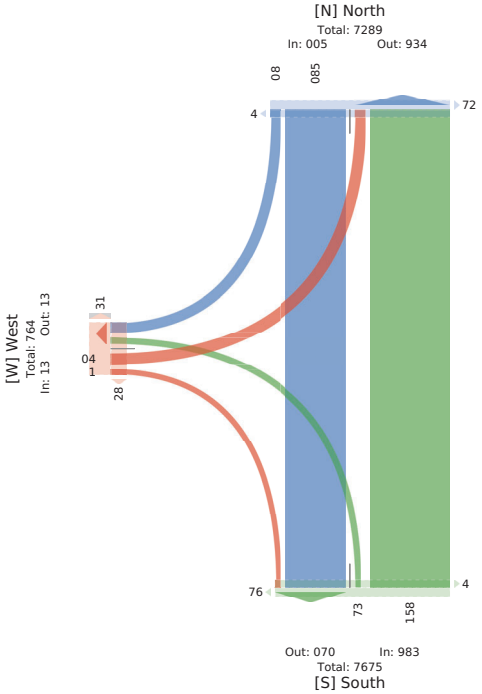
PeC DjceHyr d	Orcis Jruis. rudo					Jruis Orcis. rudo					E e1i Saii. rudo				
Tjme	w	T	W	FNN	l eoU	T	P	W	FNN	l eoU	w	P	W	FNN	l eoU
20226X(603 gth(F M	4	h0(	0	hh7	h3	h74	2	0	h(h	5	7	hg	0	2h	37
gt30F M	h0	h33	0	h73	3	h40	(	0	h4(	h	2	hg	0	h4	hg
gt7(F M	h7	h(2	0	h55	3	h40	g	0	h4g	hh	0	h3	0	h3	h(
: t00F M	hg	hh4	0	h35	2	h5h	0	0	h5h	2	0	hh	0	hh	h0
Tria-	(0	(04	0	**((4**	2h	540	h7	0	**g07**	20	5	(:	0	**57**	g5
*** FNNraHi**	: 8*	4h8*	0*	**6**	6	4: 80*	280*	0*	**6**	6	48*	408*	0*	**6**	6
*** Tria-**	38 *	3: 8*	0*	**728***	6	(280*	h8*	0*	**(38***	6	08(*	78*	0*	**78 ***	6
l v %	08g2	08 3:	6	**08 7g**	6	08 43	08(00	6	**08 g4**	6	08g(	08 : 3	6	**08g5**	6
P)Gsi1 ado Mr ir cHyHe1	7h	743	0	**(37**	6	52(	h3	0	**53:**	6	5	7:	0	**(7**	6
*** P)Gsi1 ado Mr ir cHyHe1**	: 28*	458*	0*	**4(8 ***	6	408*	428*	0*	**408***	6	h00*	: 28 *	0*	**: 78***	6
v eaBy	2	h3	0	**h(**	6	35	h	0	**3g**	6	0	(	0	**(**	6
*** v eaBy**	780*	28*	0*	**28g***	6	(82*	g8*	0*	**(8***	6	0*	: 8*	0*	**g8 ***	6
R)HyHe1 r d wr ao	g	3	0	**h0**	6	24	0	0	**24**	6	0	(	0	**(**	6
*** R)HyHe1 r d wr ao**	h78*	08*	0*	**h8 ***	6	78*	0*	0*	**78***	6	0*	: 8*	0*	**g8 ***	6
l eoe lic)ad1	6	6	6	6	h4	6	6	6	6	20	6	6	6	6	(4
* l eoe lic)ad1	6	6	6	6	40(*	6	6	6	6	h00*	6	6	6	6	gg8*
R)HyHe1 r d 9 cr 11k a-L	6	6	6	6	2	6	6	6	6	0	6	6	6	6	hg
* R)HyHe1 r d 9 cr 11k a-L	6	6	6	6	48(*	6	6	6	6	0*	6	6	6	6	228*

└ l eoe lic)ad1 ado R)HyHe1 r d 9 cr 11k a-L8Pt Pebi, wt w)Csi, Tt Tscu, Wt W6Tucd

l cr Bjoeo . yt 9)iy r b f iiak a
h00 9 r d1ie–ai)r d Dc,
OeNead, f O, p 2K (Gi, 9 F

5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

Tue May 3, 2022
AM Peak (8:-9 AM) l :- 9 AMC
Ass Lsai i ei (ght nd aor Mcd cHyvsei, BeaRy, Per eidHnoi, whyvsei co mcar, whyvsei co LHti i l askC
Ass McReDeod
47 : 5. l 098, g cvadco: . 96i591,)89Gl . - 81



PhERer by: Lhdy cf Odh1 a
- 00 Lcoi dessadc co 7 Hj
Nepeao, ON, K2G 9J5, LA

5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

Tue May 3, 2022
MIl l ay Lean g t i80 (M 6t 2i30 LM:
(Av- Ae9e9 gl lP) Gsa s l Mi Gdoyo Ae9, r eacy, Lel e9Gdas 9, HIoyo Ae9 i s v i al , HIoyo Ae9 i s
- d i 99Ba Ae:
(AMi ceRes G
vk hm1 D047, 1 i oa Gi s h1 483m45, 6748501 t 75

1eP k k0eoGis	Oi dG Ji uG. i us1					Ji uG Oi dG. i us1					E e9C Sa9C i us1				
TIRe	v	T	W	(NN	Lel U	T	1	W	(NN	Lel U	v	1	W	(NN	Lel U
20226046 03 t t I80(M	t 4	t t 4	0	**t 30**	m	t I t	3	0	**t I I**	3	0	7	0	**7**	2t
t t lI 4(M	20	t I 7	0	**t 57**	1	t I 7	4	0	**t 42**	3	t	4	0	**5**	t D
t 2I00 LM	t 4	t I 2	0	**t 47**	3	t I m	2	0	**t 4t**	5	2	m	0	**t t**	t m
t 2h 4LM	t I	t 32	0	**t I 5**	t 2	t 33	3	0	**t 35**	1	2	t 0	0	**t 2**	27
Ti GA	5I	435	0	**500**	2D	470	t 3	0	**4D8**	t 5	4	3t	0	**35**	D4
*** (NNi ao)**	t 08*	D n8*	0*	**6**	6	nF8D*	28*	0*	**6**	6	t 38n*	D58 *	0*	**6**	6
*** Ti GA**	488*	I I 80*	0*	**I m8***	6	I 58D*	t 8 *	0*	**I 78D***	6	08 *	28*	0*	**38D***	6
Lr %	08I00	08n03	6	**08Dnl**	6	08n44	08540	6	**08n8D**	6	0858 24	08700	6	**085I D**	6
1 lP) Gsa s l Mi Gdoyo Ae9	I 3	40m	0	**442**	6	435	t 3	0	**4I m**	6	4	24	0	**30**	6
*** 1 lP) Gsa s l Mi Gdoyo Ae9**	572*	m480*	0*	**m280***	6	nI 80*	t 00*	0*	**nI 82***	6	t 00*	D08*	0*	**D88***	6
r eacy	4	22	0	**27**	6	22	0	0	**22**	6	0	3	0	**3**	6
*** r eacy**	78D*	I 8 *	0*	**I 8I***	6	38n*	0*	0*	**38D***	6	0*	n8*	0*	**D8***	6
HIoyo Ae9 i s v i al	t 5	4	0	**2t**	6	t 2	0	0	**t 2**	6	0	3	0	**3**	6
*** HIoyo Ae9 i s v i al**	248*	08n*	0*	**38I***	6	28 *	0*	0*	**28 ***	6	0*	n8*	0*	**D8***	6
Lel e9Gdas 9	6	6	6	6	27	6	6	6	6	t 5	6	6	6	6	72
* Lel e9Gdas 9	6	6	6	6	n8I *	6	6	6	6	t 00*	6	6	6	6	DI 8*
HIoyo Ae9 i s - d i 99Ba Ae	6	6	6	6	t	6	6	6	6	0	6	6	6	6	t 3
* HIoyo Ae9 i s - d i 99Ba Ae	6	6	6	6	38*	6	6	6	6	0*	6	6	6	6	t 48*

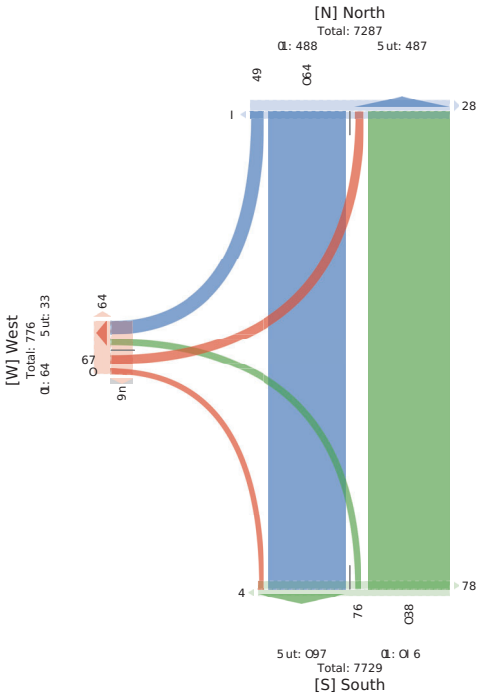
└ Lel e9Gdas 9 as l HIoyo Ae9 i s - d i 99Ba Ae81 h1 elC, v hv lP) Ç ThT) du, Wh W6Tucd

Ldi cIf el . yh- RÿibfGiBa
t 00 - i s9GeAeGi s k d,
OeNeas, f O, p 2K 4Gin - (

5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

Tue May 3, 2022
MAPPay kea(8 : -30 9 M) : 2-30 kMl
9 (Cs GilLeL.8 AghtLanP Mdtdcryr@L, c eaHy, kePeIIoAnL, v Atyr@Ldn BdaP, v Atyr@Ldn
s odLIRa(Cl
9 (CMdHewentL
nl - D4705. , i dratAln- 45G3D51,). 5G174: . 1

Ottawa
kodHAPeP by- s Aty df OttaRa
: 00 s dnLIeCGitAln I q
Nepean, ON, K2G 5JD, s 9



5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

Tue May 3, 2022
FM Feal l3n80 FM gt n80 FMhg (6e:aAPFeal - 9u:
1 APA))e) lCsi do) arc M9c9:HyHe), - ea6y, Fece)ɑsar), v sHyHe) 9r B9ac, v sHyHe) 9r
P:9))RaAh
1 AM96ewer o)
kmnI t D047, C9Hno9r nt 48l 45, g7485D . 75

Ottawa
F:96scec bynP sɑy 9f (onRa
. 00 P9r)ɑeAlɑɑ9r m:,
OeNear , (O, p 2K 4G , P 1

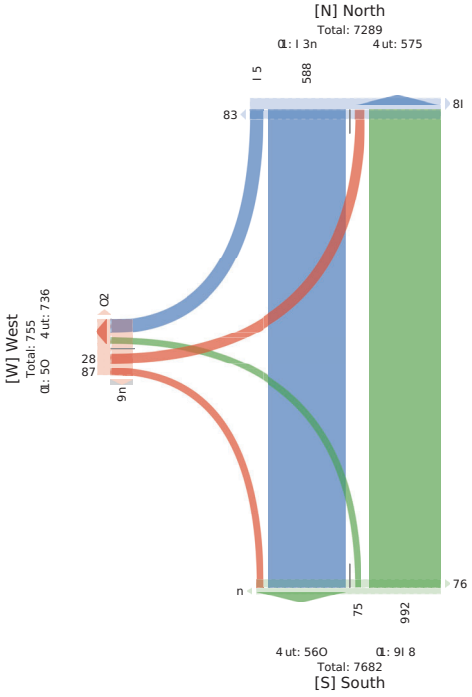
Cei mceHn0r	O9:ɑl J 9uɑlb9ur c					J 9uɑl O9:ɑlb9ur c					E e)o Sa)ɑb9ur c					
Tswe	B	T	W	**1 NN**	FecU	T	C	W	**1 NN**	FecU	B	C	W	**1 NN**	FecU	**kro**
2022g04g03 3n80FM	32	. 15	0	**22D**	. 2	. 7.	t	0	**. 74**	3	2	1	0	**. .**	30	**t . t**
3nt 4FM	. D	. 72	0	**. 10**	1	. D8	5	0	**. D1**	7	. .	. t	0	**24**	2t	**t 0t**
t n00FM	. 4	. 5t	0	**. 71**	. 1	. 7.	5	0	**. 77**	3	7	. 7	0	**2t**	24	**30D**
t n 4FM	22	. 10	0	**2. 2**	D	. t 0	.	0	**. t .**	. 0	.	. 2	0	**. 3**	24	**355**
T9ɑɑA	D7	722	0	**D0l**	t D	554	. 7	0	**5D2**	23	2.	42	0	**73**	. 0t	**. 45t**
*** 1 NN9aHE**	. 08D*	D 82*	0*	**g**	g	178*	28*	0*	**g**	g	2D8D*	7. 8*	0*	**g**	g	g
*** T9ɑɑA**	48*	t 58*	0*	**4. 8***	g	t 28*	. 8 *	0*	**t 38***	g	. 8*	38*	0*	**t 8***	g	g
F- %	08524	08 . I	g	**08D5**	g	08 2D	08'0D	g	**08 20**	g	08t2D	08'40	g	**08'2D**	g	08 37
Csi do) arc M9c9:HyHe)	4I	51.5	0	**744**	g	532	. 7	0	**5t I**	g	. I	t 7	0	**55**	g	. t 70
*** Csi do) arc M9c9:HyHe)**	578D*	158 *	0*	**138***	g	148*	. 00*	0*	**148***	g	108*	108 *	0*	**108 ***	g	1t 8*
- ea6y	.	. 7	0	**. D**	g	. 0	0	0	**. 0**	g	0	.	0	.	g	2I
*** - ea6y**	. 8 *	28 *	0*	**28***	g	. 8t*	0*	0*	**. 8***	g	0*	. 8 *	0*	**. 8 ***	g	. tI *
v sHyHe) 9r B9ac	27	I	0	**35**	g	23	0	0	**23**	g	2	t	0	**5**	g	54
*** v sHyHe) 9r B9ac**	3. 80*	. 8*	0*	**t 8 ***	g	38t*	0*	0*	**38 ***	g	18t*	78*	0*	**D8***	g	t 8*
Fece)ɑsar)	g	g	g	g	t 2	g	g	g	g	. 5	g	g	g	g	77	
* Fece)ɑsar)	g	g	g	g	D78t*	g	g	g	g	5I 85*	g	g	g	g	7t 80*	g
v sHyHe) 9r P:9))RaAh	g	g	g	g	5	g	g	g	g	7	g	g	g	g	27	
* v sHyHe) 9r P:9))RaAh	g	g	g	g	. 28*	g	g	g	g	308 *	g	g	g	g	2580*	g

Fece)ɑsar) arc v sHyHe) 9r P:9))RaAh8CnCefq BnBsi dq TnTd:u, WhWgTu:r

5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

Tue May 3, 2022
AM AeaP k3(30 AM- 8 : (30 AM- 8 9) ela(CAeaP s Lul
i (Cg Gihbeh k ndorh acHMLrLlvyv@h, s ea) y, AeHehrh nch, Bnvyv@h Lc RLaH, Bnvyv@h Lc
g lLhhwa(P-
i (CML) emecrh
ID(4: 705. , t LvamLc(: 56451, 8 5617: b. 1

Ottawa
AlL) nHeHf y(g ny LO9 nawa
b00 g LchreGimLc Dl,
Nepeac, 9 N, K2G 5J4, g i



5566814 - COVID - QUEEN ELIZABETH DRWY @ FIF... - TMC

Tue May 3, 2022
Full Length (6:30 AM-9:30 AM, 11:30 AM-2 PM, 3:30 PM-6 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 947066, Location: 485403921, -. 855719. 4

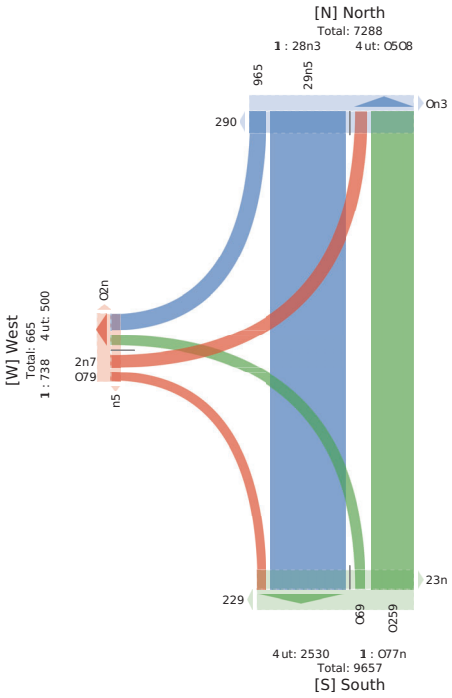
Ottawa
Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 8J9, CA

Leg Direction	North Eouthbound					Eouth Northbound					S est Westbound					
Time	R	T	U	**App**	Ped*	T	L	U	**App**	Ped*	R	L	U	**App**	Ped*	**Int**
2022-08-03 6:00AM	8	42	0	**4.**	13	32	1	0	**33**	11	3	4	0	**.**	.	**7.**
. :00AM	23	1. 4	0	**19.**	22	141	.	0	**147**	2.	8	1.	0	**22**	13	**36.**
7:00AM	44	2. 1	0	**318**	4.	212	21	0	**233**	2.	18	46	0	**61**	20	**609**
9:00AM	24	107	0	**132**	18	73	13	0	**96**	11	11	20	0	**31**	7	**289**
11:00AM	30	131	0	**161**	19	61	8	0	**66**	23	9	17	0	**2.**	16	**284**
12:00PM	86	286	0	**312**	83	132	2.	0	**189**	. 2	16	38	0	**81**	26	**822**
1:00PM	83	240	0	**293**	46	13.	26	0	**163**	88	12	23	0	**38**	24	**491**
3:00PM	26	233	0	**289**	48	9.	23	0	**120**	3.	17	18	0	**33**	16	**412**
4:00PM	68	808	0	**8. 0**	8.	16.	36	0	**203**	66	32	39	0	**. 1**	22	**744**
8:00PM	69	408	0	**4. 4**	71	191	34	0	**228**	100	22	4.	0	**69**	39	**. 67**
Total	398	2368	0	**2. 60**	397	1283	193	0	**1446**	429	143	264	0	**40.**	191	**4613**
% Approach	14.5%	78.5 %	0%	**-**	-	76.5 %	13.3%	0%	**-**	-	38.3%	64.9%	0%	**-**	-	-
% Total	7.6%	81.9%	0%	**89.7%**	-	2. 2%	4.2%	0%	**31.9%**	-	3.1%	85 %	0%	**79.7%**	-	-
Lights and Motorcycles	36.	2329	0	**2696**	-	1222	193	0	**1418**	-	137	284	0	**392**	-	4803
% Lights and Motorcycles	92.3%	97.8%	0%	**9. 5 %**	-	9. 8%	100%	0%	**9. 9%**	-	96.8%	96.2%	0%	**96.8%**	-	9. 6%
Heavy	9	18	0	**24**	-	10	0	0	**10**	-	2	4	0	**6**	-	40
% Heavy	2.3%	0.6%	0%	**0.9%**	-	0.7%	0%	0%	**0.5 %**	-	1.4%	1.3%	0%	**1.2%**	-	0.8%
Bicycles on Road	19	21	0	**40**	-	21	0	0	**21**	-	3	6	0	**9**	-	. 0
% Bicycles on Road	4.7%	0.9%	0%	**1.4%**	-	1.5 %	0%	0%	**1.2%**	-	2.1%	2.2%	0%	**2.2%**	-	1.8%
Pedestrians	-	-	-	-	290	-	-	-	-	369	-	-	-	-	174	
% Pedestrians	-	-	-	-	. 23%	-	-	-	-	76.3%	-	-	-	-	96.2%	-
Bicycles on Crosswalk	-	-	-	-	107	-	-	-	-	60	-	-	-	-	-	
% Bicycles on Crosswalk	-	-	-	-	2. 1%	-	-	-	-	14.3%	-	-	-	-	3 5 %	-

*Pedestrians and Bicycles on Crosswalk5L: Left, R: Right, T: Thru, U: U-Turn

5566814 - COVID - QUEEN ELIZABETH DRWY @ FIF... - TMC

Tue May 3, 2022
Full Length (6:30 AM-9:30 AM, 11:30 AM-2 PM, 3:30 PM-6 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 947066, Location: 485403921, -. 85719. 4



Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 8J9, CA

5566814 - COVID - QUEEN ELIZABETH DRWY @ FIF... - TMC

Tue May 3, 2022
F M l eaL ngth(F M 6: th(F MA
F – 9 -a1le1 nP)Gs i1 ado Mr ir ch Hy He1, v eaBy, l eoe lic)ad1, R)HyHe1 r d wr ao, R)HyHe1 r d 9 cr 11k a-LA
F -- Mr Bemedi1
IDt : 4g077, Pr Hai)r dt 4(8403: 2h, 65(87gh: 54

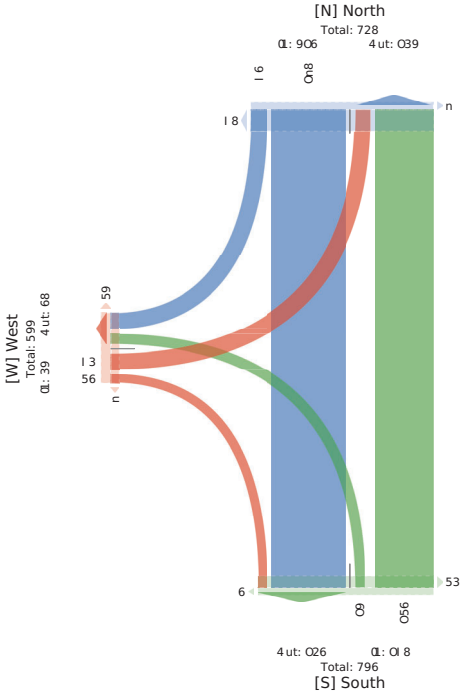
Ottawa
l cr Bjoeo . yt 9)iy r b f iiak a
h00 9 r d1ie--ai)r d Dc,
OeNead, f O, p 2K (G , 9 F

PeC DjceH)r d	Orcis J ruis. r udo				J r uis Orcis. r udo				E e1i Sali. r udo				
Tjme	w	T	W	F NN	l eoU	T	P	W	F NN	l eoU	w	P	W	F NN	l eoU	Idi
20226)(603 gth(F M	hg	74	0	g2	h4	(h	7	0	(5	7	2	5	0	:	g	h4g
gr30F M	h0	gh	0	: h	g	7g	3	0	5h	(	4	h2	0	h7	4	h5g
gr4(F M	g	g3	0	: h	h7	(5	(	0	72	5	g	h(	0	23	4	h57
: r00F M	hh	(2	0	73	h0	4h	:	0	(0	(	3	h2	0	h(	(	h2g
Tr ia-	45	2g0	0	**325**	4g	2h5	23	0	**240**	23	h5	47	0	**73**	2h	**730**
*** F NNzraHi**	h48t*	g(8**	0*	**6**	6	: 08t*	: 8**	0*	**6**	6	2580*	538*	0*	**6**	6	6
*** Tr ia-**	58(*	448t*	0*	**(h8 ***	6	348t*	38**	0*	**3g8h***	6	28**	58t*	0*	**h08***	6	6
l v %	08g0g	08g4g	6	**08gg:**	6	08*: g	08'3:	6	**08g4(**	6	08(3h	08*(0	6	**08'54**	6	08gg4
P)Gs i1 ado Mr ir ch Hy He1	40	25g	0	**38g**	6	2h(	23	0	**23g**	6	h5	4(	0	**72**	6	7hg
*** P)Gs i1 ado Mr ir ch Hy He1**	g(8h*	: : 8h*	0*	**: 58t***	6	: : h*	h00*	0*	**: : 8t***	6	h00*	: 58*	0*	**: g8t***	6	: g8h*
v eaBy	2	0	0	**2**	6	2	0	0	**2**	6	0	0	0	**0**	6	4
*** v eaBy**	48t*	0*	0*	**08'***	6	08 *	0*	0*	**08g***	6	0*	0*	0*	**0***	6	08'*
R)HyHe1 r d wr ao	(	2	0	**5**	6	0	0	0	**0**	6	0	h	0	**h**	6	g
*** R)HyHe1 r d wr ao**	h08'*	08*	0*	**2h***	6	0*	0*	0*	**0***	6	0*	28*	0*	**h8'***	6	h8t*
l eoe lic)ad1	6	6	6	33		6	6	6	6	hg	6	6	6	6	20	
* l eoe lic)ad1	6	6	6	6	7g8*	6	6	6	6	5g8*	6	6	6	6	: (8*	6
R)HyHe1 r d 9 cr 11k a-L	6	6	6	6	h(	6	6	6	6	(	6	6	6	6	h	
* R)HyHe1 r d 9 cr 11k a-L	6	6	6	6	3h8*	6	6	6	6	2h8*	6	6	6	6	48g*	6

└l eoe lic)ad1 ado R)HyHe1 r d 9 cr 11k a-L8Pt Pe bi, wt w)Csi, Tt Ts cu, Wt W6Tucd

5566814 - COVID - QUEEN ELIZABETH DRWY @ FIF... - TMC

Tue May 3, 2022
AM Peak (8:-9 AM) l :- 9 AMC
Ass Lsai i ei (gh t nd aor Mcd cHyvsei, BeaRy, Per ei dHnoi, whyvsei co mcar, whyvsei co LHti i I askC
Ass McReDeod
47 : l 580. . , g cvadr co: 596503l 2- ,)196 8- l 15



PhtHRrer by: Lhty cf Odh1 a
-00 Lcoi dessadr co 7 Hj
Nepeao, ON, K2G 9J1 , LA

5566814 - COVID - QUEEN ELIZABETH DRWY @ FIF... - TMC

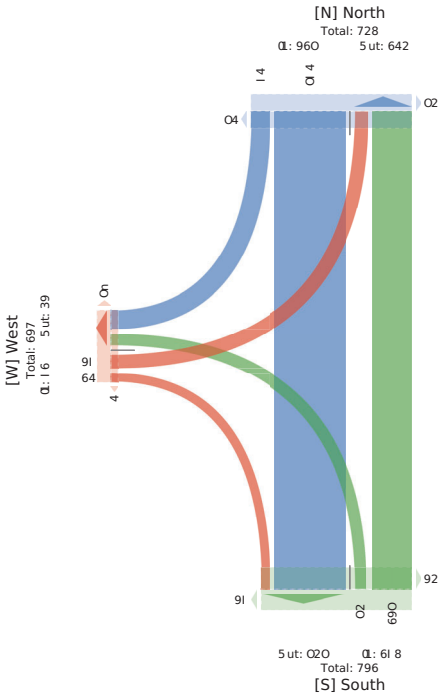
Tue May 3, 2022
MHl ay Lean g: 2 LM ht LM(
6 :: A:a--e- g)H.P)- aCl Ms)s idyd:e-, o ear y, Lel e-)i lãG-, c Hdyd:e- s C.Hs al , c Hdyd:e- s C
Ais --v a:n(
6 :: Ms r eBeO)-
Rvkm1 D044, 9 sda)l5 Ck1 78 l 03m2t , h5784Dn5l

Ottawa
Lisr fl el . ykABy s b f))av a
t 00 As G-)e::a)l8 C wi,
OeNeaC, f O, p 2K 7Gm A6

9e1 wHed)l8 C	Osi)P J su)P. su Cl					J su)P Osi)P. su Cl					E e-) Sa-). su Cl					
TlBe	H	T	W	6 NN	Lel U	T	9	W	6 NN	Lel U	H	9	W	6 NN	Lel U	HC)
2022h07h03 t 2k00LM	t m	40	0	**5m**	t t	27	5	0	**32**	2t	7	t 2	0	**t 5**	3	**t 2D**
t 2k 7LM	t 3	47	0	**5D**	D	2m	7	0	**3I**	2t	4	7	0	**t t**	t t	**t 23**
t 2k80LM	t I	47	0	**5m**	t m	37	4	0	**I t**	t 7	t	D	0	**m**	7	**t 2m**
t 2k 7LM	t 0	44	0	**54**	t 7	I 3	m	0	**72**	t 7	I	t 0	0	**t I**	5	**t I 2**
Ts)a:	74	274	0	**3t 2**	73	t 32	25	0	**t 7m**	52	t 4	37	0	**7t**	24	**722**
*** 6 NNsadP**	t 58t*	I28 *	0*	**h**	h	I38D*	t 58**	0*	**h**	h	3t 8 *	4I38*	0*	**h**	h	h
*** Ts)a:**	t 08*	I m8*	0*	**7m8I***	h	278t*	78**	0*	**308***	h	38t *	48*	0*	**m8I***	h	h
Lo %	08535	08tID	h	**08tI1**	h	08tID	08570	h	**08557**	h	08t45	08tID	h	**0852t**	h	08t27
9 HP)- aCl Ms)s idyd:e-	74	272	0	**30D**	h	t 2D	25	0	**t 77**	h	t 4	32	0	**I D**	h	7t t
*** 9 HP)- aCl Ms)s idyd:e-**	t 00*	m8I *	0*	**m8***	h	m58D*	t 00*	0*	**m58***	h	t 00*	m t8 *	0*	**m t8 ***	h	m58tI
o ear y	0	3	0	**3**	h	3	0	0	**3**	h	0	t	0	**t**	h	5
*** o ear y**	0*	t 82*	0*	**t 8I***	h	28I*	0*	0*	**t 8tI**	h	0*	28tI	0*	**28I***	h	t 8I*
c Hdyd:e- s C.Hs al	0	t	0	**t**	h	t	0	0	**t**	h	0	2	0	**2**	h	I
*** c Hdyd:e- s C.Hs al**	0*	08 *	0*	**08I***	h	08I*	0*	0*	**08I***	h	0*	78*	0*	**38tI***	h	08I*
Lel e-)i lãG-	h	h	h	h	I2	h	h	h	h	45	h	h	h	h	24	
* Lel e-)i lãG-	h	h	h	h	5n8*	h	h	h	h	n88 *	h	h	h	h	t 00*	h
c Hdyd:e- s C Ais --v a:n	h	h	h	h	t t	h	h	h	h	7	h	h	h	h	0	
* c Hdyd:e- s C Ais --v a:n	h	h	h	h	208D*	h	h	h	h	48tI	h	h	h	h	0*	h

└Lel e-)i lãG- aCl c Hdyd:e- s C Ais --v a:n89 k9 eh), HkHH:P), TkTPi u, VvkWhITuiC

MAPPay kea(8 2 kM - : kM9
) ll Classes 8LAghs at P Mnlndoyoles, r eacy, kePeshdAt s, HAayoles nt v naP, HAayoles nt
CdnssBal(9
) ll MnceRet hs
vnl D47055, Lnoahat I 4. 6403D2: , -1. 657: Dl4

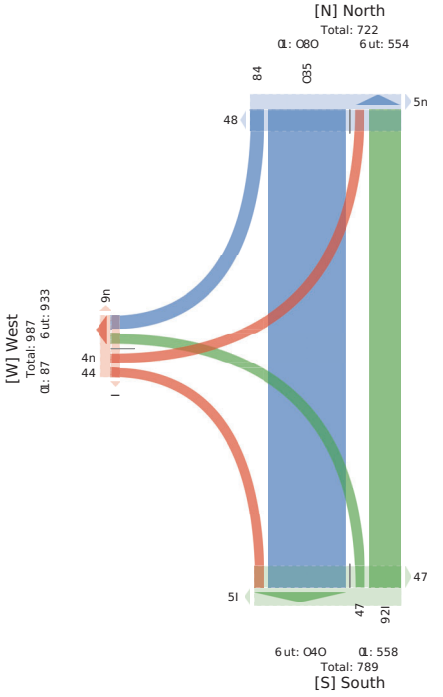


FM Feal l3rgt FM hgrgt FM(h6 : eAu-- Feal 9 1uA
P –) -aCCeCls idorCacHM1r1Ayv-eC, 9 ea: y, FeHeGAacC, Bivyv-eC1c R1aH, Bivyv-eC1c
) AtCGwa-l (
P – M1: ek ecrC
nh nDg4077, s 1vari1cngt 8g03D25, h t 8745D g

s ed I iAevri1c	O1Ao J 1uro b1ucH					J 1uro O1Aob1ucH					E eG SaGb1ucH					
Tik e	R	T	W	P NN	FeHL	T	s	W	P NN	FeHL	R	s	W	P NN	FeHL	mr
2022h0rh03 3rgt FM	52	523	0	**53t**	5.	t g	4	0	**72**	5t	4	D	0	**5.**	55	**25g**
gt00FM	5g	532	0	**5g7**	54	gt	D	0	**t g**	22	7	4	0	**5g**	g	**25g**
gr6t FM	20	533	0	**5t 3**	54	g5	7	0	**g.**	54	D	50	0	**5D**	2	**25D**
gr80FM	5.	55g	0	**535**	.	gD	5g	0	**73**	55	50	.	0	**5.**	7	**255**
T1ea-	73	t 02	0	**t 7t**	70	54D	3.	0	**227**	77	33	3g	0	**7.**	23	**4t 4**
*** P NNNLavo**	552*	4481*	0*	**h**	h	438*	578g*	0*	**h**	h	gDB*	t 08 *	0*	**h**	h	h
*** T1ea-**	.8*	t 48 *	0*	**7t 8D***	h	228*	g8*	0*	**278***	h	38t*	g8*	0*	**. 8t***	h	h
F9 %	08 44	08tg3	h	**08t2D**	h	08t. t	08'75	h	**08tD**	h	08t75	08tt 0	h	**08tt t**	h	0BD42
s idorCacHM1r1AyveC	72	gD*	0	**t t 4**	h	547	3.	0	**223**	h	35	33	0	**7g**	h	4gt
*** s idorCacHM1r1AyveC**	D8g*	D68*	0*	**D68***	h	D8g*	500*	0*	**D68 ***	h	D8D*	D 85*	0*	**D 8 ***	h	D68 *
9 ea: y	5	2	0	**3**	h	3	0	0	**3**	h	0	5	0	**5**	h	.
*** 9 ea: y**	58*	08g*	0*	**08 ***	h	58*	0*	0*	**58***	h	0*	28D*	0*	**58 ***	h	08t*
Bivyv-eC1c R1aH	0	g	0	**g**	h	0	0	0	**0**	h	2	0	0	**2**	h	7
*** Bivyv-eC1c R1aH**	0*	08t*	0*	**08 ***	h	0*	0*	0*	**0***	h	78*	0*	0*	**38***	h	08 *
FeHeGAacC	h	h	h	h	3D	h	h	h	h	t 2	h	h	h	h	23	
* FeHeGAacC	h	h	h	h	7t 8D*	h	h	h	h	. 48t*	h	h	h	h	500*	h
Bivyv-eC1c) AtCGwa-l	h	h	h	h	25	h	h	h	h	5g	h	h	h	h	0	
* Bivyv-eC1c) AtCGwa-l	h	h	h	h	3t 8*	h	h	h	h	258*	h	h	h	h	0*	h

L FeHeGAacCacHBivyv-eC1c) AtCGwa-l 8s ns efr, RnRidor, TnToAu, VhVhiTuAt

AM AeaP k3(8: AM - 8(8: AM9-) l eCass AeaP L i uC
g ssh satt et kn dor ct aHv Mi ci CByBset, Leal y, AevetcGaH, RdByBset i Hwi av, RdByBset i H
h Gi t tmasP9
g ss Mi l el eHit
Dl (7850. . , ni Eacd H(8: 6803721, -b: 6 517b8



Full Length (6
: ll Ala--e- (L9ght- an1 MPtP)CjyCle-, s eai y, de1e-t)9hn-, o 9CjyCle- Pn r Pa1, o 9CjyCle- Pn
A)P--c allH5
: ll MPi ev ent-
BRwkm0I 2m LPCatPnwDm8k7I 8D, 5I m87m7k3

Leg R9eC9Pn	NPjth SPuth. Pun1					Ea-t We-t. Pun1					SPuth NPjth. Pun1					
T9ve	T	L	U	: pp	de1*	r	L	U	: pp	de1*	r	T	U	: pp	de1*	Bat
2022 50m03 8w0: M	I k	30	2	**CDD**	l	k	m	0	**CD**	C0	Ct	kD	0	**CDD**	0	**238**
I w0: M	23m	m7	O	**2kD**	2m	3D	3O	0	**8m**	22	DO	288	0	**30I**	D	**888**
7w0: M	2k0	I m	0	**38m**	21	D2	nk	0	**O0O**	88	kD	D8O	0	**mmm**	22	**O02O**
kw0: M	OnD	2D	2	**OP0**	OD	7	20	0	**27**	OI	33	2Ct	0	**2m0**	m	**Dn9**
OOw0: M	OIk	DO	2	**232**	2m	2I	38	O	**8D**	83	Dm	Ok0	O	**238**	I	**m82**
O2w0dM	37k	I O	O	**D8O**	Dm	nD	m2	0	**O08**	OnD	73	373	0	**D88**	38	**O033**
O40dM	3kI	8O	2	**D80**	I 0	n8	I 0	0	**OE3**	O8O	78	D02	0	**DP7**	30	**O0 O**
3w0dM	2n8	33	0	**278**	D8	28	nO	0	**I I**	OO0	nm	20k	O	**28m**	20	**827**
Dw0dM	D8I	kD	3	**n8D**	kI	88	OOP	0	**OPD**	CI O	OO0	DDB	O	**mnD**	37	**O802**
m0dM	Dn8	O0I	3	**n83**	77	I O	O0D	0	**CI m**	O80	O82	DO2	0	**nDD**	2m	**OP72**
TPtal	2k08	nkD	O8	**3nOB**	DDO	3k0	nDB	O	**k3I**	kDn	8k8	30I I	3	**3I I 8**	OI	**722k**
% : pp)PaCh	72 4 %	O54-%	04n%	**5**	5	DO8%	n74 8%	04.0%	**5**	5	OF4.0%	7 On%	04.0%	**5**	5	5
% TPtal	3m8%	I 42%	042%	**D24 %**	5	DI ¼	848%	0%	**COD0%**	5	74n%	314.0%	0%	**Dnk%**	5	5
L9ght- an1 MPtP)CjyCle-	287m	nI 0	O8	**32I O**	5	381	nOO	O	**7I k**	5	82m	27n0	3	**3DI 7**	5	I 827
% L9ght- an1 MPtP)CjyCle-	k24.0%	k84.0%	C00%	**k340%**	5	kD0.%	k34-%	C00%	**k34.0%**	5	7k4%	k24-%	C00%	**k24.0%**	5	k24 %
s eai y	CI7	2O	0	**O8k**	5	C0	C0	0	**20**	5	23	CDO	0	**OBD**	5	3n8
% s eai y	mO%	34n%	0%	**DP%**	5	248%	O6*%	0%	**240%**	5	348%	D8%	0%	**D8%**	5	D8%
o 9CjyCle- Pn r Pa1	I 3	3	0	**I 8**	5	O8	2m	0	**37**	5	D7	78	0	**OBD**	5	2D7
% o 9CjyCle- Pn r Pa1	24n%	04n%	0%	**242%**	5	348%	D8%	0%	**D0.%**	5	84.%	24*%	0%	**34n%**	5	34%
de1e-t)9hn-	5	5	5	5	D80	5	5	5	5	770	5	5	5	5	Ok	
% de1e-t)9hn-	5	5	5	5	kI 4n%	5	5	5	5	kI 42%	5	5	5	5	kn4 %	5
o 9CjyCle- Pn A)P--c allH	5	5	5	5	OO	5	5	5	5	2m	5	5	5	5	7	
% o 9CjyCle- Pn A)P--c allH	5	5	5	5	24n%	5	5	5	5	24*%	5	5	5	5	D8%	5

*de1e-t)9hn- an1 o 9CjyCle- Pn A)P--c allH4LwLeDt, r vr 9ght, TwTh)u, UwUJ5Tu)n

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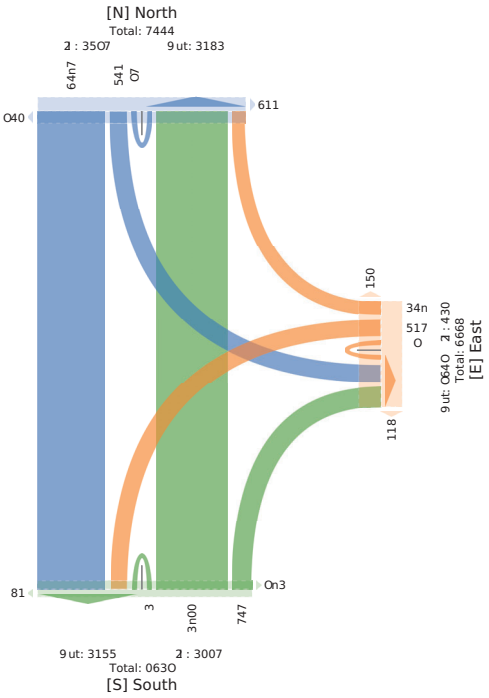
Tue May 3, 2022
Full Length (6
: ll Ala--e- (L9ght- an1 MPtP)CjyCle-, s eai y, de1e-t)9n-, o9CjyCle- Pn r Pa1, o9CjyCle- Pn
A)P--c alH6
: ll MPi ev ent-
BRwkm0l 2m LPCat9PnwDm8k718D 5I m87n7k3

d)Pi 9le1 . ywA9y Pbf ttac a
O00 APn-tellat9Pn R),
Nepean, f N, K2G n0k, A:



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Tue May 3, 2022
F M l eaL ngth(F M 6: th(F MA
F – 9 -a1le1 nP)Gsi1 ado Mr ir cHyHe1, v eaBy, l eoe lic)ad1, R)HyHe1 r d wr ao, R)HyHe1 r d
9 cr 1lk a-LA
F -- Mr Bemedi1
IDt : (042(, Pr Hai)r dt 7(8: g457, 6i(85g(g: 3

l cr Bjoeo . yt 9)iy r b f iiak a
h00 9 r d1ie--ai)r d Dc,
OeNead, f O, p 2K (G , 9 F

PeC DjceHyr d	Orcis Eruis. rudo					Jaii S eli. rudo					Eruis Orcis. rudo					
Tjme	T	P	W	**F NN**	l eoU	w	P	W	**F NN**	l eoU	w	T	W	**F NN**	l eoU	**ldi**
20226)(603 gth(F M	52	20	0	**g2**	:	h0	h0	0	**20**	2h	3h	: h	0	**h22**	4	**227**
gt30F M	45	h7	0	**: 0**	(	h7	hg	0	**32**	h5	25	h2g	0	**h(7**	:	**245**
gt7(F M	h04	22	0	**h2:**	7	5	h3	0	**h:**	h(	22	h(3	0	**h4(**	2	**323**
: t00F M	g4	g	0	**: (**	5	2	h0	0	**h2**	h2	2h	h23	0	**h77**	7	**2(h**
Tr ia-	332	57	0	**3: 5**	27	32	(h	0	**g3**	57	h00	7: (	0	**(: (**	22	**h047**
*** F NNzraH.**	g38g*	h58*	0*	**6**	6	3g85*	5h8*	0*	**6**	6	h58g*	g38*	0*	**6**	6	6
*** Tr ia-**	308 *	58*	0*	**358 ***	6	380*	78t*	0*	**48t***	6	: 8t*	758h*	0*	**((8***	6	6
l v %	084h	08t24	6	**08857**	6	08(4h	085: 7	6	**0857h**	6	08g30	08g0h	6	**08g77**	6	08g2(
PjCsi1 ado Mr ir cHyHe1	3h5	50	0	**345**	6	3h	74	0	**4g**	6	g4	77h	0	**(2g**	6	: g2
*** PjCsi1 ado Mr ir cHyHe1**	: (8*	: 38g*	0*	**: 78 ***	6	: 58 *	: 28*	0*	**: 78***	6	g48*	g: 8*	0*	**g88***	6	: h8*
v eaBy	h7	7	0	**hg**	6	h	3	0	**7**	6	5	33	0	**3:**	6	5h
*** v eaBy**	78*	58*	0*	**78(***	6	38*	(8 *	0*	**78g***	6	58*	58t*	0*	**585***	6	(8t*
RjHyHe1 r d wr ao	2	0	0	**2**	6	0	h	0	**h**	6	4	2h	0	**2g**	6	3h
*** RjHyHe1 r d wr ao**	085*	0*	0*	**08(***	6	0*	28*	0*	**h2***	6	48*	78*	0*	**78t***	6	28 *
l eoe lic)ad1	6	6	6	6	27	6	6	6	6	50	6	6	6	6	2h	
* l eoe lic)ad1	6	6	6	6	h00*	6	6	6	6	: 38g*	6	6	6	6	: (8 *	6
R)HyHe1 r d 9 cr 1lk a-L	6	6	6	6	0	6	6	6	6	7	6	6	6	6	h	
* R)HyHe1 r d 9 cr 1lk a-L	6	6	6	6	0*	6	6	6	6	58*	6	6	6	6	78 *	6

[1] l eoe lic)ad1 ado R)HyHe1 r d 9 cr 1lk a-L8Pt Pebi, wt w)Csi, Tt Tscu, Wt W6Tucd

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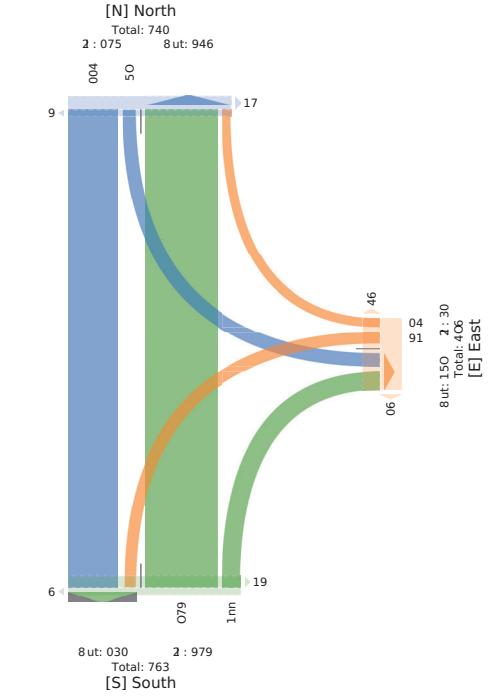
Tue May 3, 2022
AM Peak (8:-9 AM) l :-9 AMC
Ass Lsai i ei (ghtnd aor Mcd:Hyvsei, BeaRy, Per eidHnoi, whyyvsei co mcar, whyyvsei co
LHti i l askC
Ass McReDeod
47 : l 90529, g cvadrco: . 96il 851. ,)596l 8981 3

PhERhrer by: Lhdy cf Odh1 a
-00 Lcoi dessadrco 7 Hj
Nepeao, ON, K2G 9J1 , LA



5566814 - COVID - BANK ST @ EXHIBITION WAY -... - TMC

Tue May 3, 2022
MIl l ay Lean g: 2i80 LM (t i80 LM6
: Av- Ae90e9 gl lP) Oasl Mi Gdoyo Ae9, r eacy, Lel e9Gdas 9, HIoyo Ae9 i s v i al , HIoyo Ae9 i s
- di 99Ba Aa6
: AAMi ceRes O
vk hm1 0D2I , 1 i oa Gi sh4I 7:n8D54, (D1 7581 8n3

Ldi cfl el . yh- Ky i b f GaBa
t 00 - i s9GAaGi s k d,
OeNeas, f O, p 2K I Gn - :

1eP k ke oGis	Oi dj Ei uj. i us l					Ja9C S e9C i us l					Ei uj Oi dj. i us l					
TIRe	T	1	W	**: NN**	Lel U	v	1	W	**: NN**	Lel U	v	T	W	**: NN**	Lel U	**wC**
2022(0I (03 t 2h80LM	8I	t m	0	**t 04**	m	t 2	t I	0	**2D**	2m	23	t 02	0	**t 2I**	D	**2I 5**
t 2h4I LM	t 0m	t 8	t	**t 28**	t t	2t	t 0	0	**3t**	3D	23	nD	0	**t 20**	t 4	**2Dm**
t h00LM	t 05	t I	0	**t 2t**	t 8	t D	t 3	0	**30**	34	2t	t t 0	0	**t 3t**	t 3	**282**
t h I LM	n8	23	0	**t t 5**	t D	t 5	23	0	**3m**	35	t 8	nD	0	**t t I**	8	**2D0**
Ti GA	3n8	DI	t	**45m**	I I	55	5t	0	**t 2D**	t 35	8I	405	0	**4m**	42	**t 08D**
*** : NNdao)**	837I*	t 57D*	072*	**(**	(	I 2D*	48D*	0*	**(**	(	t DI9*	82DI*	0*	**(**	(	(
*** Ti GA**	352*	53nf	07I *	**43I ***	(	5I *	I 5*	0*	**t t DI***	(	DI8*	3DI4*	0*	**4I 2***	(	(
Lr %	07h05	07h I	0 2I 0	**07h20**	(	0I E63	075n0	(	**07hI 0**	(	07h20	07h4I	(	**07h48**	(	07n68
I IP) Oasl Mi Gdoyo Ae9	3I 8	DD	t	**42m**	(	50	I D	0	**t t D**	(	DD	3DI	0	**4I I**	(	t 00(
*** I IP) Oasl Mi Gdoyo Ae9**	m I *	m87*	t 00*	**m I ***	(	m07nf	m87*	0*	**m2I ***	(	m07*	m8I *	0*	**m2I I***	(	m2I *
r eacy	25	I	0	**3t**	(	t	t	0	**2**	(	4	t m	0	**23**	(	15
*** r eacy**	57*	57D*	0*	**57***	(	t I *	t 5*	0*	**t 5***	(	47D*	47D*	0*	**47D***	(	t I2*
HIoyo Ae9 i s v i al	m	0	0	**m**	(	I	3	0	**8**	(	4	m	0	**t 3**	(	30
*** HIoyo Ae9 i s v i al**	2I3*	0*	0*	**t 2nf**	(	DI5*	47nf	0*	**573***	(	47D*	272*	0*	**275***	(	2I8*
Lel e9Gdas 9	(	(	(	(	I 3	(	(	(	(	t 34	(	(	(	(	4t	
* Lel e9Gdas 9	(	(	(	(	m87*	(	(	(	(	n8I *	(	(	(	(	nD5*	(
HIoyo Ae9 i s - di 99Ba Aa	(	(	(	(	2	(	(	(	(	2	(	(	(	(	t	
* HIoyo Ae9 i s - di 99Ba Aa	(	(	(	(	375*	(	(	(	(	t 7I *	(	(	(	(	27I *	(

[1] Lel e9Gdas 9 as l HIoyo Ae9 i s - di 99Ba Aa 71 h l eb C, v hv IP) Ç ThT) du, VhW(Tucd

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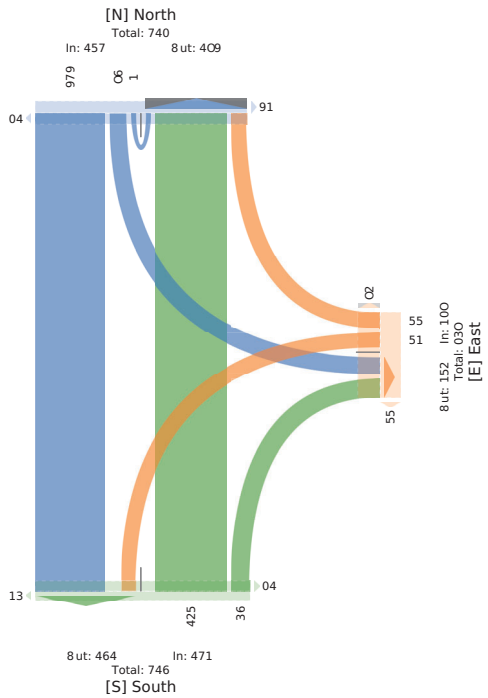
Tue May 3, 2022

MAPPay kea(8 2-30 kM 9: -30 kM)

l (Cs GiILeL.8 AghtLanP Mdtdcryr@L, c eaHy, kePeIIoAnL, v Atyr@Ldn BdaP, v Atyr@Ldn s odLLRa(C.)

l (CMdHewentL

nl - D40724, i dratAln- 54.3D6715, 974.1646D8



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Tue May 3, 2022

FM Feal Ing h FM (hg h FM6(: Ae-a'9Feal 1 Pu-

) 9)C9sisses Ii cbr cs aHv MPcP-ByBRes, 1 eaAy, Fevesec-dsHs, RdsByBRes PHwPav, RdsyBRes PH C-Pssk a9 l 6

) 9)MPAemeHs

IDg4h072h, i PEIacdPHgnh83457. n, (7h8 5h543

i eo DdeRtdPH	OP-cr EPucr bPuHv				J asc S esdsPuHv				EPucr OP-cr bPuHv					
Tdne	T	i	W	) NN FevU	w	i	W	) NN FevU	w	T	W	) NN FevU	HE	
2022(0h(03 ng hFM	t t 3	t 4	t	t 33 2n	2n	3t	0	hh n.	24	t t 2	t	t n2 4		330
ng80FM	t 2n	25	t	t h3 20	t 0	24	0	34 3n	2h	t 07	0	t 32 7		32n
ngthFM	t t 2	30	0	t n2 30	t n	27	0	nt 3n	37	t t 4	0	t h. 7		334
hg00FM	t 27	3.	0	t . 3 22	t 3	3t	0	nn n3	3.	t t h	0	t ht t 0		3h5
TPa9	n7.	t t 3	2	h4t 4.	. t	t t 5	0	t 74 t h7	t 27	nh3	t	h5t 33		t 3ht
*) NNPaBt	50h*	t 48 *	08*	((	3n8 *	h8t*	0*	((	2t 8t*	758*	08*	((		
* TPa9	3h8*	58*	08 *	n38* (	n8*	58*	0*	t 38* (	48*	338*	08 *	n38* (		
F1 %	08t 0	0850	08h00	0855 4 (	08 2h	0854 2	(	0873 (	0854	08. h	08h0	08n7 (		08ht
i cbr cs aHv MPcP-ByBRes	nn0	t t 2	2	hhn (	. 0	t 07	0	t . 7 (	t t h	n22	t	h35 (		t 2h4
* i cbr cs aHv MPcP-ByBRes	42h*	44 8 *	t 00*	438* (	45h*	408*	0*	438* (	408 *	4382*	t 00*	428 * (		4382*
l ea Ay	t h	0	0	t h (	0	0	0	0 (	t	t n	0	t h (		30
* l ea Ay	38*	0*	0*	28* (	0*	0*	0*	0* (	08*	38 *	0*	28 * (		282*
RdsyBRes PHwPav	2t	t	0	22 (	t	t t	0	t 2 (	t t	t 7	0	25 (		. 2
* RdsyBRes PHwPav	n8h*	08t*	0*	38* (	t 8 *	48t*	0*	. 8* (	58*	38*	0*	n8* (		n8 *
Fevesec-dsHs	(	(	(	(4t	(	(	(	(t ht	(	(	(	(30		
* Fevesec-dsHs	(	(	(	(4n8*	(	(	(	(4. 8*	(	(	(	(408t*		(
RdsyBRes PHC-Pssk a9	(	(	(	(h	(	(	(	(.	(	(	(	(3		
* RdsyBRes PHC-Pssk a9	(	(	(	(h8*	(	(	(	(38*	(	(	(	(48 *		(

[1] Fevesec-dsHs aHv RdsyBRes PHC-Pssk a9 8i gi efc, wgwdbr c, TgTr -u, WgW(Tu-H

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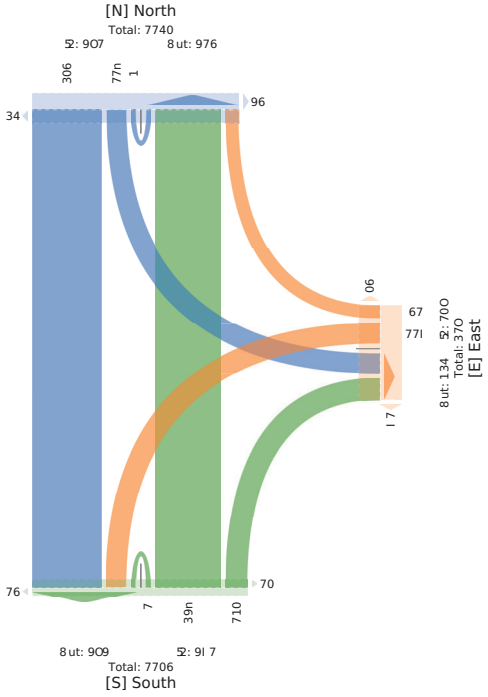
Tue May 3, 2022

AM AeaP k(8 - AM 9 - 8 - AM) 91 CesaILAeaP i gus

h ILt lamen kdlor cht avB MgIgsByRen, i eaCy, AeBenskavn, wdsyRen gv mgaB, wdsyRen gv t sgmnl alP)

h ILMgCeDevht

47 85- 0. 2-, dgRahdgv8(- G51. b(, 9 - 6b1- 153



5566814 - COVID - BANK ST @ FIFTH AVE - MAY ... - TMC

T ue May 33, 2022

Fl ILnugt h(6i A0 9 M1PA0 9 M, 33A0 9 M12) M, - A0) M1:) MC

9 ILs lai i ui 6n d (hi age Molorcyclui , Huavy,) ueui hrdsgi , Bdcyclui og Roae, Bdcyclui og s roi i walkC

9 ILMovumugli

IDAP43- 78, n ocalhbgA54.503: 8, 184.: 7847

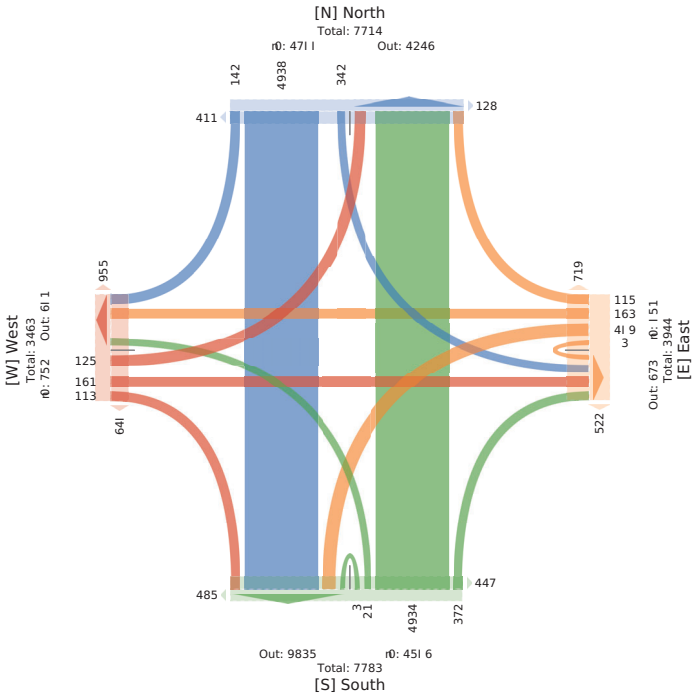
n ut Ddschdsbg	Nor h(Sol h(bol ge						Eai h T ui lbol ge						Sol h(Nor h(bol ge						T ui h Eai lbol ge						
Wlnu	R	W	n	U	9 pp	) ue*	R	W	n	U	9 pp	) ue*	R	W	n	U	9 pp	) ue*	R	W	n	U	9 pp	) ue*	lgh
2022 I04 I03 : A09 M	4	33:	7	0	32P	-	8	5	32	0	2-	37	2	335	3	0	338	8	-	3	8	0	33	P	270
8A09 M	3:	2: 4	:	0	278	2P	2-	32	22	3	47	: 0	37	- 3P	4	0	- 52	2P	35	38	- 0	0	: 3	- 8	857
7A09 M	25	- : 7	20	0	532	302	- -	42	52	0	328	33:	2-	440	3-	0	47P	: 7	3P	5-	-5	0	P:	: 4	3225
PA09 M	38	203	5	0	222	- P	5	7	2-	0	- 4	- : P	P	228	-	0	2- P	- 0	37	25	23	0	: -	2:	44P
33A09 M	37	2- 0	33	0	24P	5:	3:	34	- 0	0	- : 3	30P	32	22-	:	0	253	58	23	P	25	0	45	70	- 34
32A00) M	- 2	558	23	0	400	P7	- 2	- :	42	0	320	2: 4	27	5: 4	38	0	430	P7	27	2:	- P	0	P-	37P	322-
3A00) M	- -	550	37	0	5P3	4-	- 7	25	: 3	0	32-	3P5	20	525	3-	3	547	78	- 2	3P	- 4	0	7:	34-	3347
- A0) M	32	282	7	0	2P2	84	34	22	2P	0	: :	338	P	3P2	4	0	20:	: 3	30	28	3:	0	4-	73	: 38
5A00) M	5:	432	34	0	48-	8P	25	53	44	0	320	25:	24	5: 5	3-	0	402	P7	- 3	- 5	54	0	330	3P2	3- 04
4A00) M	- :	44P	27	0	: 2-	77	- 5	- 8	47	0	32P	24P	- 0	5- 4	3:	0	573	337	54	42	54	0	352	382	3- 84
WhnL	2- P	- 530	3- P	0	- 877	: 32	22:	243	- 75	3	7: 2	352-	38P	- 53-	P2	3	- : 74	: 5-	223	242	2P:	0	8: P	3005	P305
% 9 pproac(	: - % P0.0%		- .8% 0%		1		2: .2% 2P.3% 55.4% 0.3%				1		5.P% P2.: %		2.4%	0%	1		27.8% - 2.7% - 7.4% 0%				1		1
% WhnL	2.: % - 8.4%		3.4% 0%		53.: %		2.4%	2.7%	5.2%	0%	P.4%		2.0% - 8.4%		3.0%	0%	50.4%		2.5%	2.7%	- .- %	0%	7.5%		1
nd (li age Molorcyclui	22:	- 32-	3- -	0	- 572	1	3P-	384	- : 4	3	8- 5	1	342	- 30:	77	3	- - 58	1	20P	3PP	27:	0	: P5	1	7248
% nd (li age Molorcyclui	P5.: %	P3.: %	P4.8%	0%	P3.P%		74.5% : P.8%		P4.3%	300%	74.2%		75.P%	P3.0%	P4.8%	300%	P0.7%		P5.: %	8P.0%	P .: .: %	0%	P0.2%		P0.8%
Huavy	P	383	-	0	37-		33	P	32	0	- 2		:	374	-	0	3P5		-	-	4	0	33		520
% Huavy	- .7%	4.0%	2.2%	0%	5.7%		5.P%	- .: %	- .3%	0%	- .8%		- .5%	4.5%	- .- %	0%	4. - %		3.5%	3.2%	3.8%	0%	3.5%		5.: %
Bdcyclui og Roae	5	33:	-	0	32-		22	: 8	8	0	P:		23	322	3	0	355		P	40	4	0	: 5		528
% Bdcyclui og Roae	3.8%	- .5%	2.2%	0%	- .2%		P.8%	2: .8%	3.7%	0%	33.3%		33.8%	- .: %	3.3%	0%	- .P%		5.3%	3P.7%	3.8%	0%	7. - %		5.8%
) ueui hrdsgi	1	1	1	1	48P		1	1	1	1	350-		1	1	1	1	: 2-		1	1	1	1	PP2		
%) ueui hrdsgi	1	1	1	1	1P5.: %		1	1	1	1	1P7.: %		1	1	1	1	1P. :P%		1	1	1	1	1P7.7%		1
Bdcyclui og s roi i walk	1	1	1	1	- -		1	1	1	1	20		1	1	1	1	20		1	1	1	1	32		
% Bdcyclui og s roi i walk	1	1	1	1	4.5%		1	1	1	1	3.5%		1	1	1	1	1 - .3%		1	1	1	1	3.2%		1

*) ueui hrdsgi age Bdcyclui og s roi i walk. n Anufh, RARdi (h, WAW(rl , UALJ1Wrg

5566814 - COVID - BANK ST @ FIFTH AVE - MAY ... - TMC

Wed May 11, 2022
Full Length (6:30 AM-9:30 AM, 11:30 AM-2 PM, 3:30 PM-6 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 951387, Location: 45.40167, -75.68758

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5566814 - COVID - BANK ST @ FIFTH AVE - MAY ... - TMC

T ue May 33, 2022
F M l uaL ngt3h F M (6t3h F M:
F AA- A99u9 nl Pj G9 ai e Mdsdor yr Ae9, c uaHy, l ueu9s0ai 9, v Pr yr Ae9 di Bdae, v Pr yr Ae9 di - o999RaAL:
F AMdHawui s9
kmt 6h3l gQ 1 dras2i t 4h74038Q (Dn78gDng

Ottawa
l odHeue 5yt - By d. b ssaRa
300 - di 9uAAs8ti mq
f uOaai , b f , N2p hl6, - F

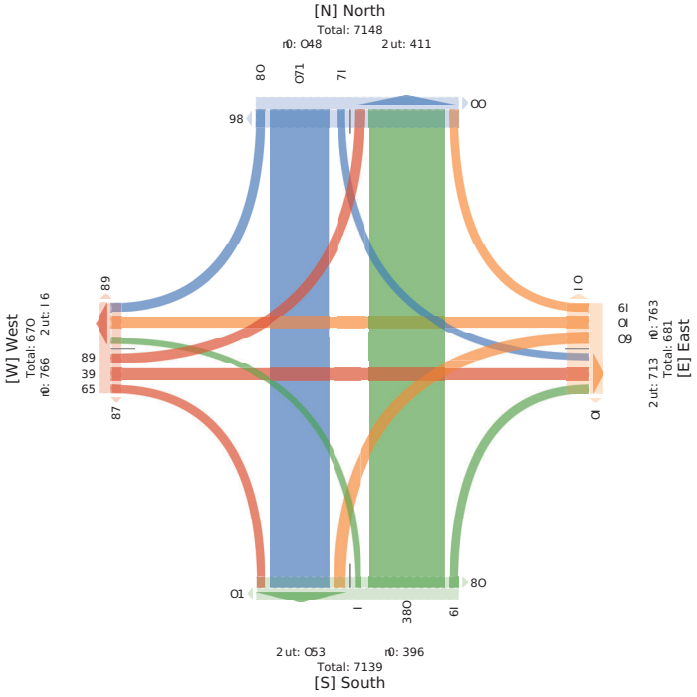
1u)	f doaC							Ge0s							J dEsC							T u9s							
mRusr8ti	J dEsC5dEi e							T u9s5dEi e							f doaC5dEi e							Ge9s5dEi e							
SPeu	B	S	1	W	FCD	l ueU		B	S	1	W	FCD	l ueU		B	S	1	W	FCD	l ueU		B	S	1	W	FCD	l ueU		**ki s**
2022(0h(33 gt3hF M	8	6g	l	0	**30D**	3D		D	3l	32	0	**1 2**	14		D	3l 2	2	0	**343**	3D		I	8	g	0	**3D**	2l		**26D**
gt1 0F M	h	gD	h	0	**6D**	1g		32	3l	3l	0	**1 g**	14		4	34h	4	0	**3hl**	38		I	33	32	0	**28**	34		**1 34**
gt4hF M	33	330	g	0	**326**	11		D	20	30	0	**1 D**	14		3l	340	3	0	**3h4**	24		32	23	g	0	**43**	36		**1 83**
6t00F M	32	33h	l	0	**3l 0**	26		I	I	32	0	**3g**	43		h	33D	2	0	**324**	3D		30	36	6	0	**1 g**	32		**1 30**
SdsaA	14	430	36	0	**48l**	33D		26	46	4D	0	**32h**	34l		26	hl 4	6	0	**hl2**	D4		2g	hD	1 D	0	**322**	8g		**32g2**
*** FCOdaeC**	Dl *	gg7h*	47h*	0*	**(**	(		2l 72*	1 62*	1 D8*	0*	**(**	(		h7l*	6l 7h*	37h*	0*	**(**	(		2l 7D*	48 7D*	1 0l 1*	0*	**(**	(		(
*** SdsaA**	27D*	1 27D*	33h*	0*	**18 7h***	(		27 1*	1 7g*	1 7D*	0*	**6 2g***	(		27 1*	43 7D*	07D*	0*	**44 7h***	(		22*	47h*	27h*	0*	**67h***	(		(
l c %	07D0g	07g1D	07h54	(	**07g1Dg**	(		07l04	07h63	07l04	(	**07l6D**	(		07h81	07h32	07h8l	(	**07h21**	(		07h8l	07D08	07l h0	(	**07l h0**	(		07l0h
1 Bj G9 ai e Mdsdor yr Ae9	13	1 D8	36	0	**423**	(		28	2h	4h	0	**68**	(		2h	46l	6	0	**h2D**	(		2D	4D	1h	0	**306**	(		33h1
*** 1 Bj G9 ai e Mdsdor yr Ae9**	632*	607h*	300*	0*	**607h***	(		g67D*	h37D*	6h7D*	0*	**1 D3g***	(		g87 2*	62 7*	300*	0*	**627h***	(		687h*	g27h*	647h*	0*	**g67 ***	(		g67h*
c uaHy	l	26	0	0	**1 2**	(		l	3	2	0	**8**	(		2	2h	0	0	**2D**	(		0	3	3	0	**2**	(		8D
*** c uaHy**	g3g*	l D3*	0*	0*	**83h***	(		30 7*	2D*	47 *	0*	**4 3g***	(		87h*	47D*	0*	0*	**47D***	(		0*	37g*	2 7D*	0*	**37l***	(		h72*
v Pr yr Ae9 di Bdae	0	30	0	0	**30**	(		0	2l	0	0	**2l**	(		2	38	0	0	**3g**	(		3	6	3	0	**33**	(		82
*** v Pr yr Ae9 di Bdae**	0*	27l*	0*	0*	**272***	(		0*	48 7h*	0*	0*	**3g7l***	(		87h*	l 7D*	0*	0*	**l 7h***	(		l 7h*	3h3g*	27D*	0*	**67D***	(		47g*
l ueu9s0ai 9	(	(	(	(	332			(	(	(	(	343			(	(	(	(	l D			(	(	(	(	8D			
* l ueu9s0ai 9	(	(	(	(	6h7D*			(	(	(	(	6g7h*			(	(	(	(	6h7h*			(	(	(	(	6g7h*		(
v Pr yr Ae9 di - o999RaAL	(	(	(	(	h			(	(	(	(	2			(	(	(	(	l			(	(	(	(	3		
* v Pr yr Ae9 di - o999RaAL	(	(	(	(	47 *			(	(	(	(	37h*			(	(	(	(	47h*			(	(	(	(	37h*		(

[1] l ueu9s0ai 9 ai e v Pr yr Ae9 di - o999RaAL71 t 1 u.s, Bt BPj Cs, St SCbE, Wt W(SEci

5566814 - COVID - BANK ST @ FIFTH AVE - MAY ... - TMC

Wed May 11, 2022
AM Peak (8:15 AM - 9:15 AM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 951387, Location: 45.40167, -75.68758

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5566814 - COVID - BANK ST @ FIFTH AVE - MAY ... - TMC

T ue May 33, 2022
MPeay l uaL ri33g 0 h M (32g 0 l M6
h :: A:a--u- r9 BJP)- aCe Ms js idyd:u-, o uar y, l ueu-)lEaG-, c Rlyd:u- s CHs ae, c Rlyd:u- s C
Ais --v a:L6
h :: Ms r uB uC)-
Rvgkm8t I Q 9 s da)BS Cg4m74038Q (Dn78l Dnl

Ottawa
l isr Reue 5ygAHy s. b)av a
300 As G-)u:a)BS Cwi,
f uOaaC, b f , N2p mK, Ah

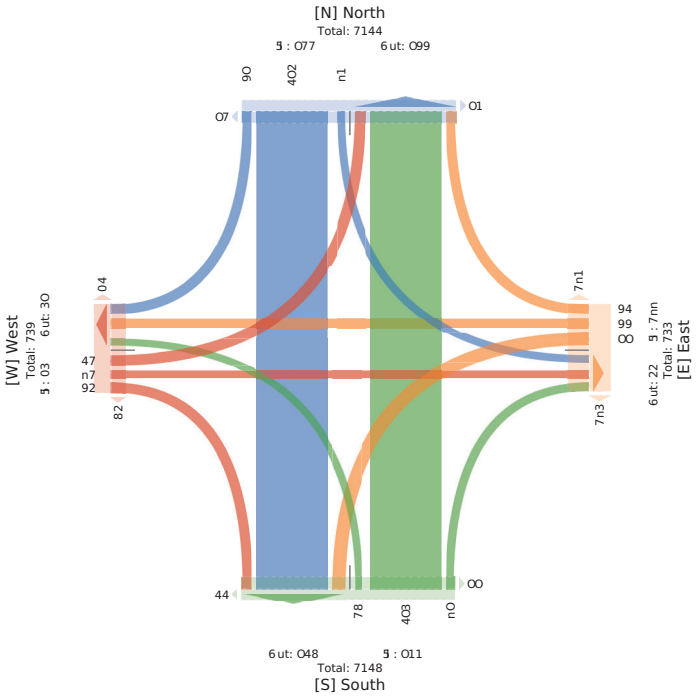
9u1	f s1)P							Ga-)							J s E)P							T u-)							
wRudjB C	J s E)P5s EGe							T u-)5s EGe							f s1)P5s EGe							Ga-)5s EGe							
SIBu	H	S	9	W	**h CD**	l ueU		H	S	9	W	**h CD**	l ueU		H	S	9	W	**h CD**	l ueU		H	S	9	W	**h CD**	l ueU		**RQ**
2022(0n(33 33g t 0h M	8	333	D	0	**324**	3m		k	8	20	0	**t m**	4m		I	334	2	0	**324**	22		k	4	3m	0	**2I**	t I		**t 33**
33gtnh M	32	33k	4	0	**3t m**	t 3		D	k	30	0	**28**	84		4	30k	4	0	**33D**	2m		32	m	k	0	**28**	42		**t 04**
32g00I M	8	30I	m	0	**33k**	t 0		D	I	33	0	**28**	1t		m	324	8	0	**3t m**	t 2		D	m	33	0	**2t**	44		**t 0t**
32ghnI M	33	33I	4	0	**3t t**	2m		33	30	34	0	**t m**	n8		I	333	m	0	**324**	20		I	D	8	0	**23**	48		**t 3t**
Ss)a:	t m	4n8	20	0	**n83**	303		t 4	t t	nm	0	**322**	24I		2m	4nI	3D	0	**n80**	kk		t 8	23	43	0	**kI**	3D		**32t 3**
*** h CDs adP**	8I 7 *	l k72*	t 7k*	0*	**(**	(		2D3k*	2D9D*	4n69*	0*	**(**	(		n7D*	k37I*	t 7I*	0*	**(**	(		t 8D*	237I*	43I 7 *	0*	**(**	(		(
*** Ss)a:**	27 *	t D0*	37I*	0*	**432nf**	(		27 *	27D*	47nf	0*	**k3k***	(		27D*	t D2*	37I*	0*	**407I***	(		27k*	37D*	t 7 *	0*	**1 7D***	(		(
l o %	07D2k	07k4k	07D c2	(	**07kt 8**	(		07Dn0	07Dn0	07I l 4	(	**07l 23**	(		07Dn0	07k33	07D0I	(	**07k32**	(		07D3	07I0k	07D34	(	**07l k4**	(		07k84
9 BJP)- aCe Ms)s idyd:u-	t 4	424	3I	0	**4D8**	(		t 3	2D	n0	0	**30I**	(		2t	43D	38	0	**4n8**	(		t 4	3I	40	0	**k2**	(		33t 2
*** 9 BJP)- aCe Ms)s idyd:u-**	kD8*	kt 7I*	k07D*	0*	**kt 72***	(		k372*	l 3I 7 *	k07k*	0*	**l I 7nf**	(		k27D*	k37D*	k47k*	0*	**k372***	(		k47k*	l nI7D*	kD8*	0*	**kt 7k***	(		k27D*
o uar y	3	20	3	0	**22**	(		2	t	2	0	**D**	(		3	t 3	3	0	**t t**	(		0	3	0	0	**3**	(		8t
*** o uar y**	27k*	47k*	n7D*	0*	**47 ***	(		n7k*	k7k*	t 7I*	0*	**n8D***	(		47D*	87 *	n7k*	0*	**87I***	(		0*	47 *	0*	0*	**37D***	(		n7I*
c Rlyd:u- s C Hs ae	0	32	3	0	**3t**	(		3	t	t	0	**D**	(		3	30	0	0	**33**	(		2	2	3	0	**m**	(		t 8
*** c Rlyd:u- s C Hs ae**	0*	27I*	n7D*	0*	**27nf**	(		27k*	k7k*	n7nf	0*	**n8D***	(		47D*	27I*	0*	0*	**272***	(		n8*	k7nf	27I*	0*	**n83***	(		27k*
l ueu-)lEaG-	(	(	(	(	kD			(	(	(	(	24t			(	(	(	(	kD			(	(	(	(	38k			
* l ueu-)lEaG-	(	(	(	(	k8D*			(	(	(	(	kl 7D*			(	(	(	(	kl 7D*			(	(	(	(	kk7I*		(
c Rlyd:u- s C Ais --v a:L	(	(	(	(	4			(	(	(	(	m			(	(	(	(	2			(	(	(	(	3		
* c Rlyd:u- s C Ais --v a:L	(	(	(	(	47D*			(	(	(	(	23D*			(	(	(	(	27D*			(	(	(	(	07I*		(

[1] l ueu-)lEaG- aCe c Rlyd:u- s C Ais --v a:L79 g9 u.), HgHRJP), SgSPiE, WgW(SEiC

5566814 - COVID - BANK ST @ FIFTH AVE - MAY ... - TMC

Wed May 11, 2022
MAlday Peak (118 0 5 M - 128 0 PM9
5)) l)aCCC(s Ai g Cahd Mt g noyo)eC, r eacy, PedeGmAhC, HAayo)eCt h v t ad, HAayo)eCt h
l nt CCBa)k9
5)) Mt ceR ehgC
vm81 Dl: 37, s t oagAh84D40167, -7D637D8

Provided by: City of Ottawa
100 l t hCge))agAh mn,
Nepean, ON, K2G Dl1 , l 5



5566814 - COVID - BANK ST @ FIFTH AVE - MAY ... - TMC

T ue May 33, 2022
FM Fual In FM gt FMhg(6ur aAAFual - 91:
P AA) AaCCuCIs idorCace M9:9:HyHaC, - ua6y, FueuGiiacC, v iHyHaC9c B9ae, v iHyHaC9c
) :9CCRaAh
P AAM96uwucrC
kml Dn3478, s 9Hari9c l 5n.503t 8, g8n.t 78n7

F:96ieue byI) iry 9f (maRa
300) 9cCuAAri9c m:,
OuNiac, (O, p 2K nCl) P

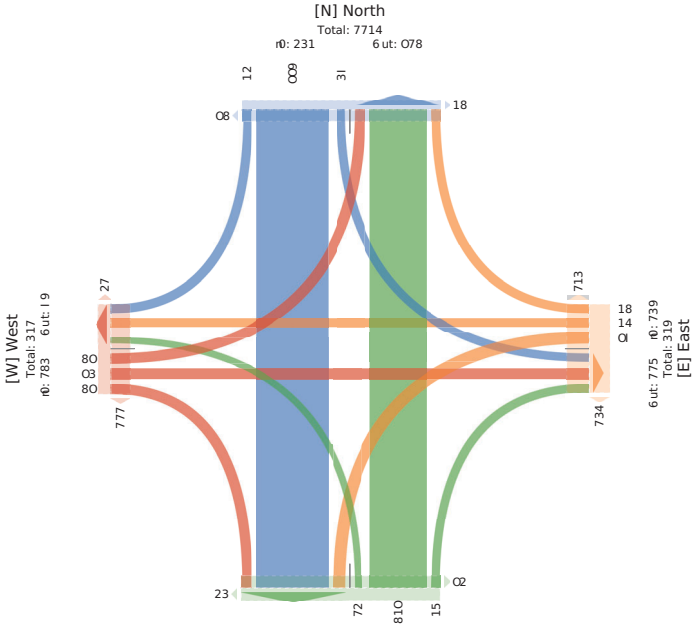
s ud mi:uHi9c	O9:ro E91rob91ce						J aG: T uGb91ce						E91ro O9:rob91ce						T uG: J aGb91ce						
Siwu	B	S	s	W	P NN	FueU	B	S	s	W	P NN	FueU	B	S	s	W	P NN	FueU	B	S	s	W	P NN	FueU	kcr
2022gOng33 nI00FM	32	35n	n	0	3t 2	3n	t	8	20	0	44	t0	33	335	n	0	340	44	33	38	32	0	50	54	4t n
nI3nFM	t	352	8	0	3nn	25	D	35	33	0	45	nn	D	334	n	0	328	42	34	7	3t	0	48	57	4n4
nI40FM	n	32t	t	0	348	24	7	7	3n	0	43	72	n	D8	4	0	30n	2n	30	38	D	0	4t	53	40D
nI5nFM	34	35t	30	0	3t D	2t	33	7	32	0	43	t2	n	333	4	0	33D	27	33	30	7	0	2D	50	457
S9aA	4t	nnD	27	0	t 24	77	45	48	n7	0	32D	2nD	40	54n	3t	0	573	337	5n	n2	5n	0	352	382	348n
* P NN9aHb	n.7*	7D8*	5.n*	0*	g	g	2t .5*	27.8*	5n.0*	0*	g	g	t .2*	D0.5*	4.4*	0*	g	g	43.8*	4t .t *	43.8*	0*	g	g	g
* S9aA	2.t *	50.8*	2.0*	0*	5n.4*	g	2.n*	2.8*	5.2*	0*	D5*	g	2.2*	43.t *	3.2*	0*	4n.0*	g	4.4*	4.7*	4.4*	0*	30.4*	g	g
F- %	0.t 84	0.Dn2	0.800	g	0.DI5	g	0.70t	0.8n0	0.8n0	g	0.778	g	0.t n0	0.Dit	0.8n0	g	0.DI4	g	0.DI8	0.8n0	0.804	g	0.DI5	g	0.DI7
s idorCace M9:9:HyHaC	4n	n38	27	0	n70	g	27	24	n8	0	307	g	2t	500	3n	0	553	g	52	4D	5n	0	32t	g	32nn
* s idorCace M9:9:HyHaC	D8.2*	D2.n*	300*	0*	D8.3*	g	72.5*	t .2.2*	D7.4*	0*	74.8*	g	7t .8*	D2.0*	D8.7*	0*	D8.8*	g	D4.4*	8n.0*	300*	0*	77.8*	g	D8.4*
- ua6y	0	3t	0	0	3t	g	3	3	0	0	2	g	0	32	0	0	32	g	3	0	0	0	3	g	43
* - ua6y	0*	2.D*	0*	0*	2.t *	g	2.D*	2.8*	0*	0*	3.t *	g	0*	2.7*	0*	0*	2.n*	g	2.2*	0*	0*	0*	0.8*	g	2.4*
v iHyHaC9c B9ae	3	2t	0	0	28	g	n	34	3	0	3D	g	5	24	3	0	27	g	2	34	0	0	3n	g	7D
* v iHyHaC9c B9ae	2.7*	5.8*	0*	0*	5.4*	g	35.8*	4n.3*	3.8*	0*	35.8*	g	34.4*	n.4*	t .4*	0*	n.7*	g	5.5*	2n.0*	0*	0*	30.t *	g	t .n*
FueuGiiacC	g	g	g	g	g	73	g	g	g	g	g	2nt	g	g	g	g	g	338	g	g	g	g	g	383	
* FueuGiiacC	g	g	g	g	g	D2.0*	g	g	g	g	g	D7.7*	g	g	g	g	g	DD2*	g	g	g	g	g	DD5*	g
v iHyHaC9c) :9CCRaA	g	g	g	g	g	8	g	g	g	g	g	4	g	g	g	g	g	3	g	g	g	g	g	3	
* v iHyHaC9c) :9CCRaA	g	g	g	g	g	7.0*	g	g	g	g	g	3.2*	g	g	g	g	g	0.7*	g	g	g	g	g	0.t *	g

L
FueuGiiacCace v iHyHaC9c) :9CCRaA. s I s ufr, Bl Bidor, S I So:1, W WgS 1:c

5566814 - COVID - BANK ST @ FIFTH AVE - MAY ... - TMC

Wed May 11, 2022
PM Peak (5 PM - 6 PM) - Overall Peak Hour
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 951387, Location: 45.40167, -75.68758

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



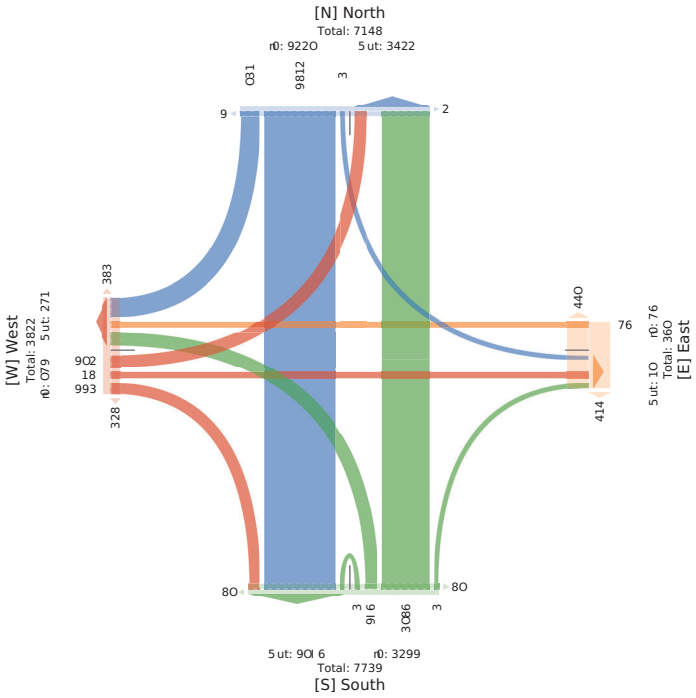
5566814 - COVID - QUEEN ELIZABETH DRWY @ PRI... - TMC

T ue May 33, 2022
Fl ILn ugt h(6 A0 9 M1PA0 9 M, - A0) M1:) M, 33A0 9 M13AC) M, 3AC) M12) Ms
9 ILi Iaddud6n (htlage Mr hr cHyHud, v uaEy,) ueudtcagd, RcHyHud r g wr ae, RcHyHud r g
i cr ddk alms
9 ILMr Bul ughd
Dl APC3733, n r Hahr gA7C3P0357, 15C3 . 0- 5.

) cr Bueue by Ai dy r f Olhka
300 i r gdhullahr g 4 c,
Nupuag, ON, K2G CJP, i 9

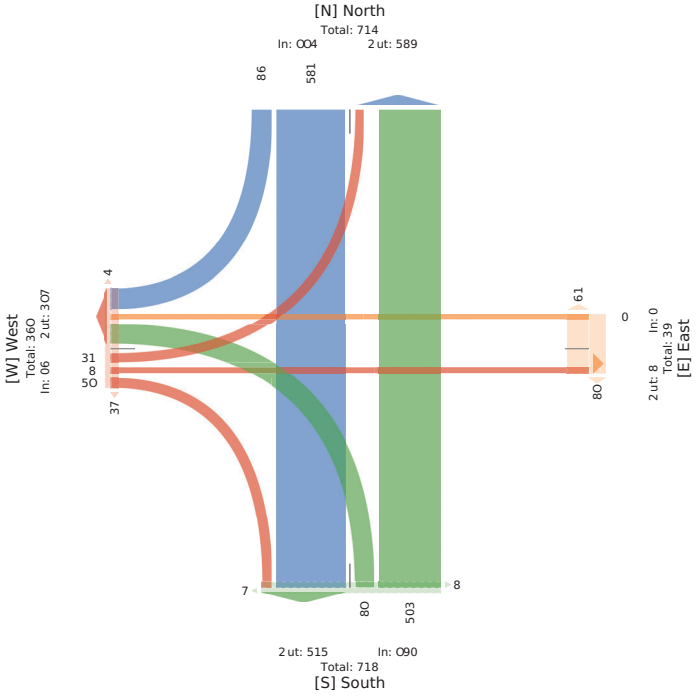
n ut 4 uaHhr g	Nr d(Sr l h(br l ge							Ead h T udbr l ge							Sr l h(Nr d(br l ge							T udh Eadbr l ge							
Vwl u	w	W	n	U	9 pp	) ue*		w	W	n	U	9 pp	) ue*		w	W	n	U	9 pp	) ue*		w	W	n	U	9 pp	) ue*	
2022 30 CI33 : A09 M	32	-.	0	0	C0	0		0	2	0	0	2	72		0	2.	-	0	-3	-		0	0	3	0	3	33	-.7
5A09 M	-7	373	0	0	35C	-		0	3	0	0	3	377		0	3- C	22	3	3C	3		7	2	3P	0	2C	2P	- CP
A09 M	:.	2: P	0	0	- - 5	0		0	7	0	0	7	3C2		0	273	: -	0	- 07	33		2-	:	3P	0	7.	22	: P-
PA09 M	23	. :	0	0	305	0		0	3	0	0	3	: P		0	300	35	0	335	7		C	3	-	0	37	3.	2- P
33A09 M	-.	3-.	0	0	35:	0		0	-	0	0	-	330		0	P:	3C	0	333	30		30	3	33	0	22	22	-32
32A0) M	53	-3C	0	0	-. :	3		0	C	0	0	C	232		0	3. 0	3C	0	3PC	3-		-0	33	2.	0	: P	- 5	: CC
3A0) M	7.	2: P	0	0	- 35	3		0	32	0	0	32	3P2		0	3. 3	20	0	203	P		-0	3P	70	0	- P	- 5	: 3P
2A0) M	2	30	0	0	32	0		0	0	0	0	0	-		0	P	2	0	33	0		2	0	2	0	7	0	25
- A0) M	-3	22P	0	0	2: 0	2		0	-	0	0	-	. 0		0	30.	2P	0	3- 5	3		22	2	2.	0	C2	3C	7C2
7A0) M	5C	7: 0	0	0	G C	3		0	:	0	0	:	220		0	2- 7	7-	0	255	2		C0	33	75	0	30.	C3	P2:
CA0) M	33:	73-	3	0	G 0	2		0	-	0	0	-	- 3.		3	23.	: 3	0	2. 0	3:		7C	30	CC	0	330	52	P2-
Wlal	C3:	2- : .	3	0	2. . C	30		0	70	0	0	70	3C72		3	3G 0	2P0	3	3. 22	50		223	: -	2C	0	C72	- 37	C2. P
% 9 ppcraAf	358%	28%	0%	0%	1		1	0%	300%	0%	0%	1		1	08%	. 70%	3C3P%	08%	1		1	708 %	338 %	758 %	0%	1		1
% Wlal	P8 %	778 %	0%	0%	C78%		1	0%	08 %	0%	0%	08 %		1	0%	2. 8P%	C8C%	0%	- 78P%		1	782%	382%	78%	0%	308P%		1
nut (hl age Mr hr cHyHud	C0:	2- 0P	3	0	2. 3:	1		0	0	0	0	0		1	0	3755	2. :	3	35: 7		1	232	0	2C3	0	7: -		1	C0 7-
% nut (hl age Mr hr cHyHud	P. 8P%	P58C%	300%	0%	P58 %		1	0%	0%	0%	0%	0%		1	0%	P: 8C%	P. 8 %	300%	P: 8 %		1	PC3P%	0%	P58 %	0%	- C8P%		1	PC3 %
v uaEy	P	3C	0	0	27		1	0	0	0	0	0		1	0	5	2	0	P		1	-	0	-	0	:		1	- P
% v uaEy	38P%	08 %	0%	0%	08 %		1	0%	0%	0%	0%	0%		1	0%	08C%	08P%	0%	08C%		1	38 %	0%	38P%	0%	38P%		1	08P%
RcHyHud r g wr ae	3	77	0	0	7C		1	0	70	0	0	70		1	3	7:	2	0	7P		1	:	: -	7	0	5-		1	205
% RcHyHud r g wr ae	08P%	38P%	0%	0%	38 %		1	0%	300%	0%	0%	300%		1	300%	- 8D%	08P%	0%	28P%		1	28P%	300%	38 %	0%	3- 8C%		1	- 8P%
) ue udtcagd	1	1	1	1	30			1	1	1	1	CP-			1	1	1	1	: 7			1	1	1	1	1	2: P		
%) ue udtcagd	1	1	1	1	300%			1	1	1	1	1 - . 8C%			1	1	1	1	1 P38P%			1	1	1	1	1. C8%		1	
RcHyHud r g i cr ddk alas	1	1	1	1	0			1	1	1	1	P7P			1	1	1	1	:			1	1	1	1	7C			
% RcHyHud r g i cr ddk alas	1	1	1	1	0%			1	1	1	1	1: 38C%			1	1	1	1	1 . 8 %			1	1	1	1	1378 %		1	

*) ue udtcagd age RcHyHud r g i cr ddk alas n An ufh, wAwa (h, WAW(cl , UALJ WI cg



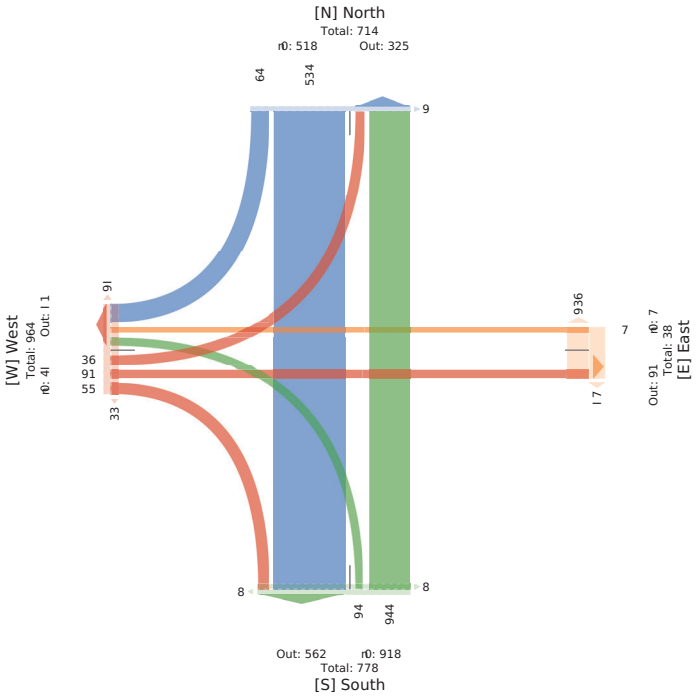
- u1 w9ud¾C	f s i)P J s E)P5s ECe						Ga-) T u-)5s ECe						J s E)P f s i)P5s ECe						T u-) Ga-)5s ECe						
S¼B u	H	S	-	W	F CO	l ueU	H	S	-	W	F CO	l ueU	H	S	-	W	F CO	l ueU	H	S	-	W	F CO	l ueU	RC)
2022t0m33 gl00F M	30	70	0	0	**40**	0	0	3	0	0	**3**	11	0	m²	32	0	**7g**	8	8	3	I	0	**g**	3	**314**
gl3nF M	3g	mn	0	0	**48**	0	0	3	0	0	**3**	18	0	m²	37	0	**42**	1	I	8	I	0	**33**	8	**3nt**
gl80F M	28	78	0	0	**g7**	0	0	2	0	0	**2**	1m	0	4h	20	0	**hh**	2	38	3	7	0	**20**	g	**204**
gl4 nF M	34	h3	0	0	**30g**	0	0	0	0	0	**0**	20	0	m0	3m	0	**7m**	2	8	3	m	0	**h**	30	**3g2**
Ss)a6	7g	27h	0	0	**884**	0	0	I	0	0	**I**	3n2	0	2I 3	78	0	**80I**	33	28	7	3h	0	**I g**	22	**7h8**
*** F CO Ss adP**	20D2*	4h0p*	0*	0*	**t**	t	0*	300*	0*	0*	**t**	t	0*	4h0I*	20D3*	0*	**t**	t	I 4h*	32D2r	8h D7*	0*	**t**	t	t
*** Ss)a6**	h0p*	8g0p*	0*	0*	**I gD***	t	0*	0D*	0*	0*	**0D***	t	0*	8I 0p*	hD3*	0*	**I 8h***	t	8I8*	0h*	2I3*	0*	**7h***	t	t
l o %	0I38h	0I38I	t	t	**0I04m**	t	t	t	t	t	**t**	t	t	0I378	0I3gg	t	**0I37g**	t	0I028	t	0I3h2	t	**0I8Bh**	t	0I)g8I
- 9t P)AaCe Ms)s idyd¼uA	74	277	0	0	**888**	t	0	0	0	0	**0**	t	0	28m	78	0	**2hg**	t	22	0	3h	0	**I 3**	t	742
*** - 9t P)AaCe Ms)s idyd¼uA**	hg0r	hg0h*	0*	0*	**hg0p***	t	0*	0*	0*	0*	**0***	t	0*	h4I0r	300*	0*	**hg0D***	t	hn0a*	0*	300*	0*	**gn0D***	t	h4D*
o u ary	3	3	0	0	**2**	t	0	0	0	0	**0**	t	0	0	0	0	**0**	t	0	0	0	0	**0**	t	2
*** o u ary**	3I0r	0I0*	0*	0*	**0D***	t	0*	0*	0*	0*	**0***	t	0*	0*	0*	0*	**0***	t	0*	0*	0*	0*	**0***	t	0I3*
c 9t ydi¼u As C Hs ae	0	2	0	0	**2**	t	0	I	0	0	**I**	t	0	7	0	0	**7**	t	3	7	0	0	**4**	t	3h
*** c 9t ydi¼u As C Hs ae**	0*	0I3*	0*	0*	**0D***	t	0*	300*	0*	0*	**300***	t	0*	2I0r	0*	0*	**2I0***	t	I 3*	300*	0*	0*	**3I D7***	t	2I3*
I ueu-¾j¼CA	t	t	t	t	t	0	t	t	t	t	t	71	t	t	t	t	t	33	t	t	t	t	t	22	
* I ueu-¾j¼CA	t	t	t	t	t	t	t	t	t	t	t	t I 2D*	t	t	t	t	t	t 300*	t	t	t	t	t	t 300*	t
c 9t ydi¼u As C : is AAv a¼L	t	t	t	t	t	0	t	t	t	t	t	gg	t	t	t	t	t	0	t	t	t	t	t	0	
* c 9t ydi¼u As C : is AAv a¼L	t	t	t	t	t	t	t	t	t	t	t	t m0h*	t	t	t	t	t	0*	t	t	t	t	t	0*	t

[1] I ueu-¾ji¼aCA c 9t ydi¼u As C : is AAv a¼LD- k- u.), H k H 9t P), S k S P i E, W k W t S E i C



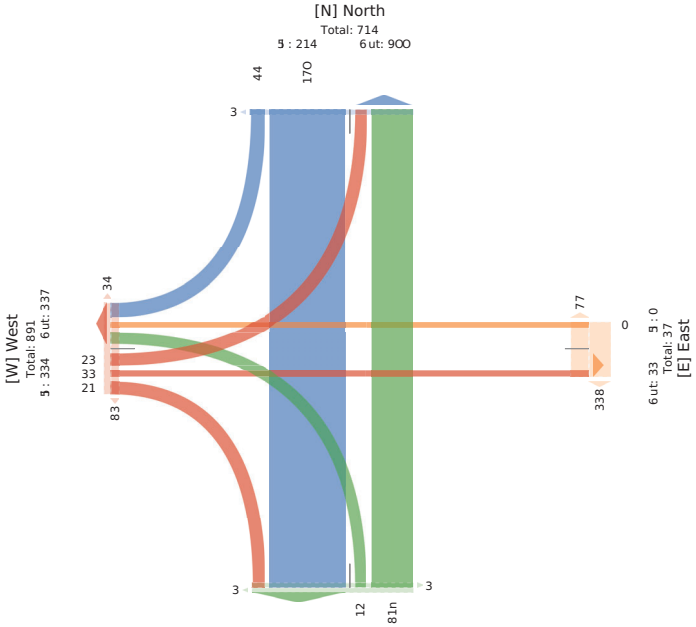
9u1 w¼ud)¾C	f s i)P J s E)P5s ECe						Ga-) T u-)5s ECe						J s E)P f s i)P5s ECe						T u-) Ga-)5s ECe						
S¼B u	H	S	9	W	6 CO	l ueU	H	S	9	W	6 CO	l ueU	H	S	9	W	6 CO	l ueU	H	S	9	W	6 CO	l ueU	RC)
2022I0r1I33 32gt l M	20	D7	0	0	**k7**	0	0	3	0	0	**3**	t 0	0	8D	8	0	**m0**	m	38	3	t	0	**3k**	3D	**3t 7**
32g80l M	3t	k4	0	0	**333**	0	0	3	0	0	**3**	44	0	t 3	t	0	**t 4**	8	D	8	4	0	**34**	3	**37m**
32gnt l M	3D	77	0	0	**30t**	3	0	2	0	0	**2**	nm	0	t 8	8	0	**t 4**	0	4	8	D	0	**34**	33	**3I k**
3g00l M	3t	4t	0	0	**70**	0	0	3	0	0	**3**	t 3	0	84	4	0	**m2**	3	D	32	7	0	**2D**	33	**3t 0**
Ss)ac	4D	82D	0	0	**8km**	3	0	t	0	0	**t**	233	0	3DD	3D	0	**3km**	7	88	3k	24	0	**D7**	m0	**4I B**
*** 6 CO Ss adP**	3DI0*	78I0*	0*	0*	**h**	h	0*	300*	0*	0*	**h**	h	0*	k3I2*	7D7*	0*	**h**	h	m2I8*	2mn r	88I8*	0*	**h**	h	h
*** Ss)ac**	30I0*	m7D*	0*	0*	**t 7D***	h	0*	0D*	0*	0*	**0D***	h	0*	24m r	2k *	0*	**27k***	h	mk*	2I7*	88k*	0*	**33I4***	h	h
l o %	0I787	0I7DD	h	h	**0I k0m**	h	h	h	h	h	**h**	h	h	0I733	0I1D07	h	**0I7 mn**	h	0I48t	h	0I7t D	h	**0I Dk2**	h	0Ik0k
9 H P)- aCe Ms)s idyd:u-	4t	837	0	0	**878**	h	0	0	0	0	**0**	h	0	3D0	3D	0	**37D**	h	83	0	2m	0	**t t**	h	42t
*** 9 H P)- aCe Ms)s idyd:u-**	kD0*	kD2*	0*	0*	**kD2***	h	0*	0*	0*	0*	**0***	h	0*	k4I0*	300*	0*	**k4 mr**	h	k8Ik*	0*	k28*	0*	**D0k ***	h	k8I3*
o u ary	2	2	0	0	**m**	h	0	0	0	0	**0**	h	0	2	0	0	**2**	h	2	0	0	0	**2**	h	7
*** o u ary**	8I0*	0I4*	0*	0*	**3I0***	h	0*	0*	0*	0*	**0***	h	0*	3I3*	0*	0*	**3I0***	h	4I3*	0*	0*	0*	**2I4***	h	3D*
c I¼dyd:u- s C Ais--v a:L	0	D	0	0	**D**	h	0	t	0	0	**t**	h	0	t	0	0	**t**	h	0	3k	2	0	**23**	h	87
*** c I¼dyd:u- s C Ais--v a:L**	0*	2I3*	0*	0*	**3I7***	h	0*	300*	0*	0*	**300***	h	0*	2I7*	0*	0*	**2I4***	h	0*	300*	I DD*	0*	**24k***	h	t I D*
I ueu-¾ji¼aG	h	h	h	h	h	3	h	h	h	h	h	7m	h	h	h	h	h	7	h	h	h	h	h	88	
* I ueu-¾ji¼aG	h	h	h	h	h	300*	h	h	h	h	h	8k I7*	h	h	h	h	h	h 300*	h	h	h	h	h	72k *	h
c I¼dyd:u- s C Ais--v a:L	h	h	h	h	h	0	h	h	h	h	h	32D	h	h	h	h	h	0	h	h	h	h	h	D	
* c I¼dyd:u- s C Ais--v a:L	h	h	h	h	h	0*	h	h	h	h	h	40I2*	h	h	h	h	h	0*	h	h	h	h	h	3I D*	h

[1] I ueu-¾ji¼aG- aCe c I¼dyd:u- s C Ais--v a:LI 9 g9 u.), H g H P), S g S P i E, W g W t S E i C



dur Do-uEHdPv	OP-Id EP) Id bP) ve							Jai H T ui IHbP) ve							EP) Id OP-Id bP) ve							T ui IH Jai IHbP) ve							
Sonu	w	S	d	W	C NN	Fue U		w	S	d	W	C NN	Fue U		w	S	d	W	C NN	Fue U		w	S	d	W	C NN	Fue U		lvH
2022(0h(33 ng hFM	34	32h	0	0	3t t	0		0	3	0	0	3	t h		0	h4	38	0	85	3		3h	3	34	0	nh	t		2h5
t g0 0FM	4	32t	0	0	3nn	3		0	t	0	0	t	hh		0	50	.	0	5.	0		32	h	32	0	24	5		2nt
t g8hFM	20	322	0	0	3t 2	0		0	2	0	0	2	h0		0	58	30	0	88	0		33	2	4	0	22	32		2t n
t g0 0FM	3.	304	0	0	328	0		0	0	0	0	0	h0		0	5n	30	0	8n	3		35	n	33	0	n0	3h		2n0
SPH49	55	t. 0	0	0	ht 5	3		0	8	0	0	8	200		0	2t 4	t h	0	24t	2		ht	33	h3	0	335	n8		45n
* CNNPaEt	3273*	. 87t*	0*	0*	(	(		0*	300*	0*	0*	(	(		0*	. t 3t*	3h7t*	0*	(	(		t 57*	47t*	t t 7*	0*	(	(		(
* SPH49	57t*	t 47.*	0*	0*	h57t*	(		0*	07t*	0*	0*	07t*	(		0*	2h7t*	t 3t*	0*	n07t*	(		h7*	37*	h7t*	0*	327*	(		(
F1 %	07 2h	07t5h	(	(	07th2	(		(	(	(	(	(	(		(	07t3t	07 5. .	(	07tn.	(		07 2.	(	07 5h.	(	07th8	(		07t 3
d or cHl ave MPHP-ByBhii	5h	t 8n	0	0	hn.	(		0	0	0	0	0	(		0	2t n	t 2	0	2. h	(		h2	0	h0	0	302	(		42h
* d or cHl ave MPHP-ByBhii	4. 7h*	4. 7h*	0*	0*	4. 7h*	(		0*	0*	0*	0*	0*	(		0*	487*	4n7h*	0*	457t*	(		457h*	0*	4. 70*	0*	. 87t*	(		4573*
1 uaAy	3	2	0	0	n	(		0	0	0	0	0	(		0	2	2	0	t	(		3	0	0	0	3	(		.
* 1 uaAy	37h*	07 *	0*	0*	07h*	(		0*	0*	0*	0*	0*	(		0*	07 *	t 7 *	0*	37 *	(		37t*	0*	0*	0*	07t*	(		07 *
RdyBhii Pv wPae	0	h	0	0	h	(		0	8	0	0	8	(		0	t	3	0	h	(		3	33	3	0	3n	(		n0
* RdyBhii Pv wPae	0*	37D*	0*	0*	07t*	(		0*	300*	0*	0*	300*	(		0*	37.5*	27t*	0*	37h*	(		37t*	300*	27D*	0*	332*	(		n7.5*
Fueui Hnavi	(	(	(	(	(	3		(	(	(	(	(	t 4		(	(	(	(	(	2		(	(	(	(	nt			
* Fueui Hnavi	(	(	(	(	(300*			(	(	(	(	(2t h*			(	(	(	(	(300*			(	(	(	(	(437t*		(
RdyBhii Pv s -Pi i k a9	(	(	(	(	(	0		(	(	(	(	(	3h3		(	(	(	(	(	0		(	(	(	(	(	n		
* RdyBhii Pv s -Pi i k a9	(	(	(	(	(	0*		(	(	(	(	(	8h7t*		(	(	(	(	(	0*		(	(	(	(	(. 75*		(

[1] Fueui Hnavi ave RdyBhii Pv s -Pi i k a9 1 7d gd uf H, wg wor c H, S g Sc-) , Wg W(S) -v



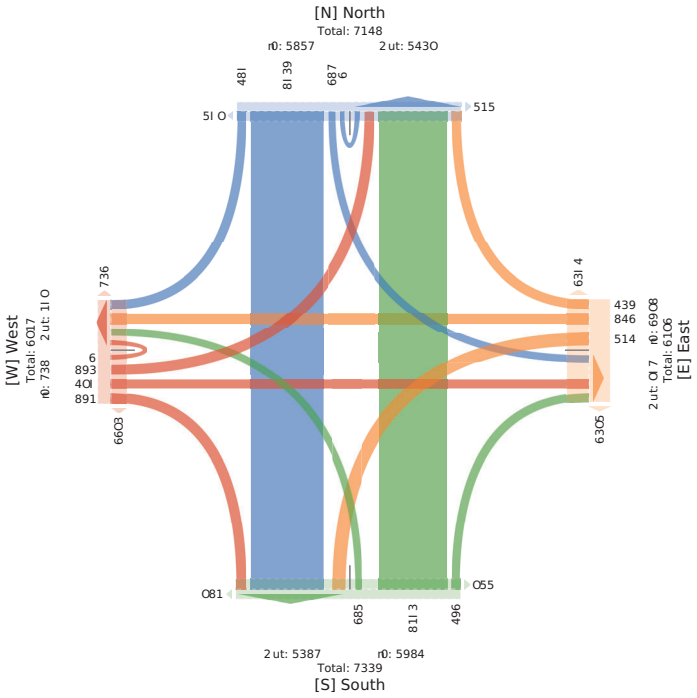
Lor Dimcsiog	Noreh ToFehboFgd							Euse S meboFgd							ToFeh NorehboFgd							S nse EuebuFgd							
Wmn	R	W	L	U	- pp	Pnd*		R	W	L	U	- pp	Pnd*		R	W	L	U	- pp	Pnd*		R	W	L	U	- pp	Pnd*		lge
, 2, , 9285y 62:22- M	68	, 7A	6,	2	, y2	87		6.	67	AA	2	18	.1		62	, 68	.	2	, AA	Ag		, ,	6A	, A	2	8.	.1		1, 1
66:22- M	A8	7. .	, 2	2	87A	6A2		71	78	8.	2	674	, y6		, y	782	, ,	2	744	6, 7		A	72	8,	2	6A2	, yA		6A, 6
6, :22PM	7,	74y	, 6	2	812	67,		7,	A8	16	2	6A	7, 1		, ,	78.	6.	2	74.	6AA		Al	7y	72	2	6, A	, 7y		6464
6:22PM	A	7. ,	61	2	8A2	68A		, 7	7A	1A	2	6A2	74.		, 7	711	6,	2	82,	67y		, y	A7	A	2	44	64.		6, 16
, :22PM	, 8	86,	6A	6	886	6, .		A6	, 4	1y	2	6, y	7.2		, 2	7y7	6A	2	82y	661		A7	, 2	Ay	6	4,	, 8.		6, yy
A:22PM	, A	8, 1	64	2	81.	61.		A7	7.	1.	2	6A.	12.		, ,	718	61	2	82A	61.		78	A7	A	2	666	A2.		6A 2
7:22PM	, y	827	67	2	878	48		, y	8A	74	2	6, 4	82.		, .	7. 8	6,	2	8, 8	61A		A4	77	A	2	668	A6A		6A67
8:22PM	A2	74.	6y	2	878	8.		, 4	76	7y	2	66y	748		A6	712	, ,	2	86A	6A4		74	64	A	2	622	, 88		6, y8
1:22PM	62	, , 2	1	2	, At	A6		64	64	, ,	2	12	6. 2		6y	, , 7	66	2	, 8,	8A		61	.	, 6	2	78	62,		84A
Wend	, A4	A4y 2	6A	6	7A7.	484		, y2	A 6	71,	2	628A	A671		, 26	Al 4y	6A7	2	72A,	62. 2		A21	, 84	A2y	6	, yA	, 2.		62A21
% - pprouch	83%	46 5%	A6 %	2%	9	9		, 83 %	A2 %	7.A4%	2%	9	9		, 82%	46 5%	A6%	2%	9	9		A83%	, 45%	A65 %	25%	9	9		9
% Wend	, 5%	A 38%	65%	2%	7, 5 %	9		, 3 %	A6%	73%	2%	625 %	9		, 2%	A65%	65%	2%	A63%	9		A2%	, 38%	A2%	2%	, 38%	9		9
Lit hes ugd Mo orcacIns	, AA	Ay 7,	6Ay	6	766A	9		, 74	, 88	71,	2	411	9		6. 1	A74,	6AA	2	A 66	9		, 41	6y,	A22	6	y14	9		4184
% Lit hes ugd Mo orcacIns	4y3	8% 475	0% 44 5	0% 622	% 473	%	9	4, 5 %	y45	% 622	% 2%	465	%	9	4, 38%	473	% 44 5	0% 2%	473	8%	9	415	% 115	% 4y5	% 622	% . .	39%	9	4A5 %
Hnuva	6	62.	2	2	624	9		6	A	2	2	7	9		,	62y	2	2	624	9		,	.	6	2	8	9		, , y
% Hnuva	25%	, 3 %	2%	2%	, 38%	9		25%	25 %	2%	2%	25%	9		62%	, 9 %	2%	2%	, 5%	9		25%	25 %	25 0%	2%	23 %	9		, 5 %
Bicaclns og Roud	8	6, 2	6	2	6, 1	9		, 2	1A	2	2	, A	9		6A	4.	6	2	66,	9		.	8	1	2	44	9		7, 2
% Bicaclns og Roud	, 3%	A2%	25%	2%	, 9%	9		y5%	643	%	2% 2%	y5	%	9	138%	, 5 %	25%	2%	, 5 %	9		, 3 %	A 5 %	, 52%	2%	665	0%	9	75%
Pndnseriugs	9	9	9	9	9	4AA		9	9	9	9	9	A821		9	9	9	9	9	621.		9	9	9	9	9	224		
% Pndnseriugs	9	9	9	9	94y	9%		9	9	9	9	94.	58%		9	9	9	9	94.	9%		9	9	9	9	944	5%		9
Bicaclns og Crosswulk	9	9	9	9	9	, 1		9	9	9	9	9	72		9	9	9	9	9	6.		9	9	9	9	9	64		
% Bicaclns og Crosswulk	9	9	9	9	, 5%			9	9	9	9	9	63%		9	9	9	9	9	65%		9	9	9	9	9	25%		9

[*] Pndnseriugs ugd Bicaclns og Crosswulk 5L: Lnfe3R: Rit he3W WhrF3U: U9WFrg

5566814 - COVID - BANK ST @ FIFTH AVE - MAY ... - TMC

Sat May 7, 2022
Full Length (10:30 AM-6:30 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 949152, Location: 45.40167, -75.68758

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5566814 - COVID - BANK ST @ FIFTH AVE - MAY ... - TMC

Tue Mua y3, 2, ,
M0FFua l Lun g h (6 : gAA-92 1 M PA -92 l M:
1)) C)ussLs g(0loes ur F Mcec Hav)Ls3B LuRa3l LFLse 0ur s3w0av)Ls c r k cuF3w0av)Ls cr
Clssmu)n:
1)) Mc RLl Lr es
I - 474A8, 3i cvu0r - 785 2A y3By85 by8b

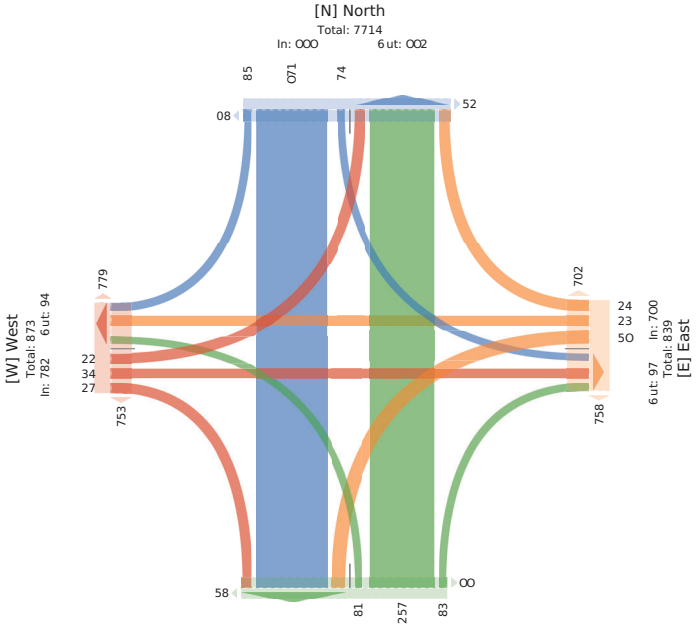
i Ld 6 0Lvs0r	(c l0o Tc Eno f c Er F								J use t Lsef c Er F								Tc Eno (c l0o f c Er F								t Lse J use f c Er F								
S0l L	k	S	i	W	1 pp	l LFU	k	S	i	W	1 pp	l LFU	k	S	i	W	1 pp	l LFU	k	S	i	W	1 pp	l LFU	D e
. 2, , B28Bzy AA92 1 M	y	A y	.	2	A02	9.	A0	A2	A4	2	7,	.9	.	AA8	8	2	A .	9A	A0	4	A	2	97	y.	97,
AA-781 M	b	A 2	8	2	A09	, b	Ay	A7	Ay	2	7b	y4	8	AA8	9	2	A 9	92	A	A2	A0	2	98	. .	994
A -221 M	.	A y	,	2	A08	72	AA	y	A	2	97	4y	9	A 2	4	2	A0,	92	b	y	AA	2	. .	y4	9, y
A -A8I M	8	A9.	.	2	A0y	9.	b	A	A9	2	99	4y	4	AAA	9	2	A 9	. .	b	A9	b	2	, 4	.7	99,
Scn)	, .	8A2	A4	2	888	A9.	74	79	. 8	2	A8y	99.	, 9	7. A	, 2	2	827	A0y	7A	94	77	2	A 7	, bA	A072
*** 1 ppltuvo**	7 5 *	4A8 *	97 *	2 *	P	P	9A5 *	, y5 *	7A5 *	2 *	P	P	75 *	4A8 *	75 2 *	2 *	P	P	995 *	9A8 *	983 *	2 *	P	P	P
*** Scn)**	A8 *	9b5 *	A5 *	2 *	7A5 *	P	95 *	95 *	75 *	2 *	AA5 *	P	A5 *	975 *	A8 *	2 *	9y5 *	P	95 *	, 5 *	95 *	2 *	459 *	P	P
l B%	25 49	2 5 94	25 02	P	25 7,	P	25 . 4	2 5 22	25 88	P	25 8.	P	25 AA	25 . 8	25 l, b	P	25 L ,	P	25 bb	25 82	25 4.	P	25 7A	P	25 4b7
i 0loes ur F Mcec Hav)Ls	, 8	7 yy	A0	2	8, 2	P	72	9A	. 8	2	A0.	P	, ,	7, b	A4	2	7. 4	P	72	, y	79	2	AA2	P	A 98
*** i 0loes ur F Mcec Hav)Ls**	4, 5 *	49 I *	47 5 *	2 *	495 *	P	9A5 *	y, 5 *	A22 *	2 *	b. 5 *	P	485 *	4, 3 *	482 *	2 *	495 *	P	4y5 *	, 45 *	4y5 *	2 *	bb5 *	P	4, 5 *
B1uRs	2	A8	2	2	A8	P	2	A	2	2	A	P	2	A	2	2	A	P	A	2	2	2	A	P	99
*** B1uRs**	2 *	, 5 I *	2 *	2 *	, 5 y *	P	2 *	, 5 I *	2 *	2 *	25 *	P	2 *	9 I *	2 *	2 *	95 *	P	, 5 7 *	2 *	2 *	2 *	2 5 *	P	, 8 *
w0avjLs cr k cuF	A	A0	A	2	, 2	P	4	AA	2	2	, 2	P	A	Ay	A	2	A4	P	2	A	A	2	A9	P	y,
*** w0avjLs cr k cuF**	9 I s *	9 I I *	85 I *	2 *	95 *	P	A5 7 *	, 85 *	2 *	2 *	A 5 y *	P	75 2 *	95 y *	85 2 *	2 *	9 I s *	P	2 *	92 5 *	, 5 I *	2 *	A 2 8 *	P	85 7 *
l LFLse 0ur s	P	P	P	P	A0,		P	P	P	P	997		P	P	P	P	AA7		P	P	P	P	, b2		
* l LFLse 0ur s	P	P	P	P	P 4 y5 *		P	P	P	P	P 445 *		P	P	P	P	P 4 y5 *		P	P	P	P	P 445 *		P
w0avjLs cr Clssmu)n	P	P	P	P	7		P	P	P	P	.		P	P	P	P	9		P	P	P	P	A		
* w0avjLs cr Clssmu)n	P	P	P	P	P , 5 I *		P	P	P	P	P 25 *		P	P	P	P	P , 5 *		P	P	P	P	P 25 7 *		P

[1] LFLse 0ur s ur F w0(avj Ls cr Clssmu)n 5i - i LQ83k - k 0(ae3S - So HE3W- W5Sl Hl

5566814 - COVID - BANK ST @ FIFTH AVE - MAY ... - TMC

Sat May 7, 2022
Midday Peak (WKND) (11:30 AM - 12:30 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 949152, Location: 45.40167, -75.68758

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5566814 - COVID - BANK ST @ FIFTH AVE - MAY ... - TMC

Tue Mua y3, 2, ,
0M 0Ful In g t h (I6:A2 0M - , :A2 0M(- 9 1FRt)) 0Ful Csi P
d)) o)urr Fr Ic h0Ear uRw Mses Rak)Fr3C Fu1a30 FwFeHaRr3mHak)Fr s R I suw8mHak)Fr s R
o Rr rDu)l (
d)) Ms 1F4 FRer
7h : 8586. , 3c s kuedHR 5. b526 f y3-y. bf Oy. O

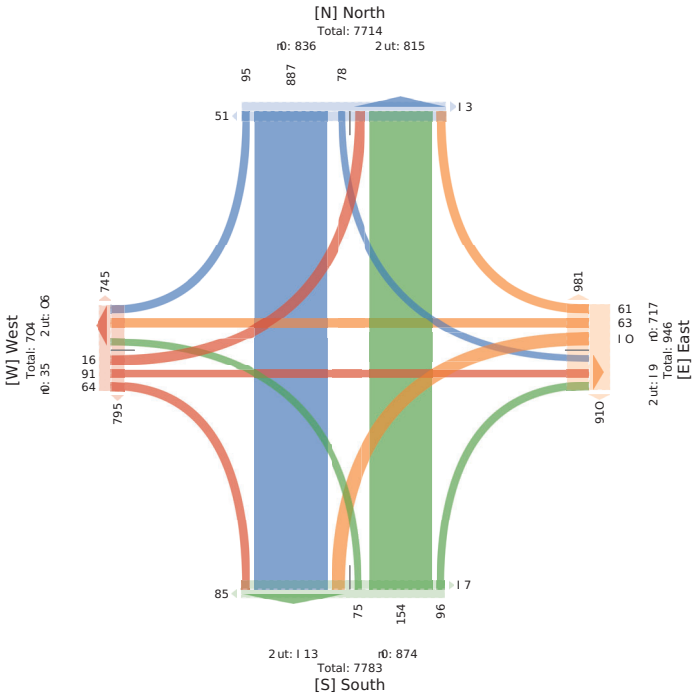
c Pv h HRkedHR	t s RtB Tsi eBNi Rw							Eure n FreNi Rw							Tsi eB t s RtBNi Rw							n Fre Eure Ni Rw							
S14 F	I	S	c	W	d kK	0FwL	I	S	c	W	d kK	0FwL	I	S	c	W	d kK	0FwL	I	S	c	W	d kK	0FwL	7Re
, 2, , -2. -2y 6: A20M	y	6, 2	5	2	6A6	5,	y	6,	6y	2	Af	6, 5	5	66O	.	2	6, y	52	y	f	62	2	, A	. 2	A6y
6:5. 0M	O	6A5	.	2	65y	. A	y	66	66	2	, 8	6A0	f	662	A	2	668	A2	O	5	8	2	, 6	58	A6f
, :220M	f	658	5	2	6. 8	6y	66	y	65	2	A	6, y	.	66A	.	2	6, A	, f	f	A	6A	2	, ,	OA	AAf
, :6. 0M	f	65O	,	2	6. f	A6	8	8	, f	2	55	66A	O	6, 8	5	2	656	, ,	8	66	66	2	A6	. ,	Ay,
Ssn)	, y	. . 6	6.	2	. 8A	65A	A5	A8	f O	2	656	. 2,	, A	5y2	6y	2	. 62	66O	A2	, 5	5A	2	8y	, A6	6A56
*** d kK8 suRB**	5I *	8, I8 *	, b *	2 *	-	-	, 5I6 *	, yb *	5Cb *	2 *	-	-	5b *	8, b *	AbA *	2 *	-	-	A2I8 *	, 5b *	55bA *	2 *	-	-	-
*** Ssn)**	, I2 *	56I6 *	6I6 *	2 *	55b *	-	, b *	, I8 *	. I6 *	2 *	62b *	-	6b *	A I2 *	6bA *	2 *	AC2 *	-	, b *	6IO *	Ab *	2 *	yb *	-	-
0C%	2IO55	2IB68	2Iy. 2	-	2I852	-	2by.	2byO6	2I . 5	-	2I06f	-	2I	2I6f	2IO 2	-	2I82A	-	2I f , .	2I86f	2IO 2	-	2by8A	-	2I826
c HRhr uRw Mses Rak)Fr	, y	. , ,	6.	2	. f 5	-	A6	, .	f O	2	6, 5	-	, 2	55.	6y	2	5Q	-	A2	, 2	5,	2	8,	-	6, f,
*** c HRhr uRw Mses Rak)Fr**	622 *	85b *	622 *	2 *	8. I6 *	-	86b *	f 5I6 *	622 *	2 *	Cyb I *	-	Cyb I2 *	85b *	622 *	2 *	85b *	-	622 *	O6bA *	8yb *	2 *	85bO *	-	85I6 *
CRula	2	66	2	2	66	-	2	2	2	2	2	-	2	6A	2	2	6A	-	2	2	2	2	2	-	, 5
*** CRula**	2 *	, I2 *	2 *	2 *	6I8 *	-	2 *	2 *	2 *	2 *	2 *	-	2 *	, bO *	2 *	2 *	, b *	-	2 *	2 *	2 *	2 *	2 *	-	6bO *
mHak)Fr s R I suw	2	6O	2	2	6O	-	A	65	2	2	6y	-	A	6,	2	2	6.	-	2	5	6	2	-	-	. .
*** mHak)Fr s R I suw**	2 *	A bA *	2 *	2 *	A I2 *	-	6bO *	A I8 *	2 *	2 *	6, I6 *	-	6A I2 *	, bf *	2 *	2 *	, I8 *	-	2 *	6f by *	, bA *	2 *	, b *	-	5I6 *
0FwFreHaRr	-	-	-	-	65A	-	-	-	-	-	22	-	-	-	-	-	66y	-	-	-	-	-	AA	-	
* 0FwFreHaRr	-	-	-	-	- 622 *	-	-	-	-	-	- 88I *	-	-	-	-	-	- 88b *	-	-	-	-	-	- 88bf *	-	-
mHak)Fr s R o Rr rDu)l	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	6	-	-
* mHak)Fr s R o Rr rDu)l	-	-	-	-	2 *	-	-	-	-	-	2I5 *	-	-	-	-	-	2I O *	-	-	-	-	-	2I6 *	-	-

[1] 0FwFreHaRr uRw mHak)Fr s R o Rs rr Du)l bc : c Fpa3I : I bHBa3S: S BH 3W. W-S i HR

5566814 - COVID - BANK ST @ FIFTH AVE - MAY ... - TMC

Sat May 7, 2022
PM Peak (WKND) (1:30 PM - 2:30 PM) - Overall Peak Hour
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 949152, Location: 45.40167, -75.68758

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5566814 - COVID - QUEEN ELIZABETH DRWY @ PRI... - TMC

TueMua y3, 2, ,
0Fll Lngt dh (62:A2 - M9l:A2 PM)
- ll Clussns (Lit hes ugd Mooorcaclns3Hnuva3Pndnsoriugs3Bicaclns og Roud3Bicaclns og Crosswulk)
- ll Movnmnges
ID: 4746113Locueiog: 785726y739y85l. 2Ay.

Providnd ba: Cien of Oeuwu
622 Cogsnlluoiog Dr3
Nnpnug3ON3K, G 8J43C-

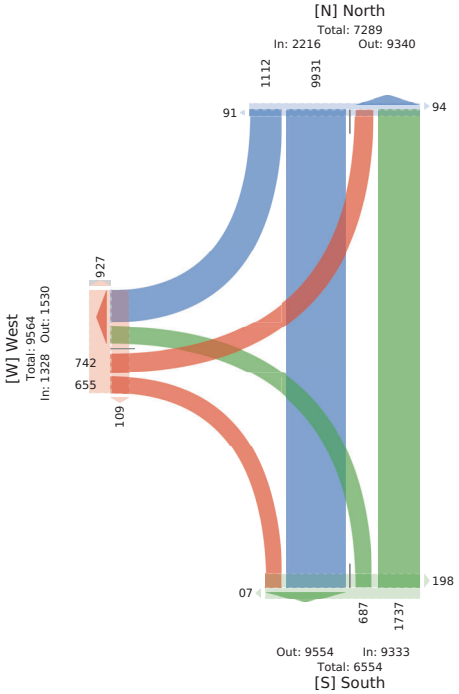
Lnt Dirncdog	Norch ToFshboFgd					ToFch NorshboFgd					E nse SusshoFgd					
Wmn	R	W	U	- pp	Prd*	W	L	U	- pp	Prd*	R	L	U	- pp	Prd*	lge
, 2, , 9282y 62:22- M	A7	62A	2	6Ay	2	y.	6A	2	46	62	, ,	67	2	A1	68	, 17
66:22- M	47	, , 4	2	A, A	.	68A	81	2	, 24	4	82	A2	2	. 2	7y	16,
6, :22PM	6, 1	, 17	2	A42	7	6y1	17	2	, 72	6,	77	88	2	44	A8	y, 4
6:22PM	4,	, 16	2	A8A	8	, 64	A4	2	, 8.	, 1	71	14	2	668	72	y, 1
. :22PM	668	A62	2	7, 8	.	648	11	2	, 16	, 7	81	12	2	661	88	. 2,
A:22PM	676	A A	2	717	.	, 6,	17	2	, y1	86	. 1	62,	2	6. .	. 7	4, :
7:22PM	674	A22	2	774	, 2	646	84	2	, 82	A,	. 8	4.	2	6. A	y1	. . ,
8:22PM	, 7A	, 1y	2	862	1	6. 4	41	2	, . 8	, 7	7.	. 1	2	6A7	71	4, 4
1:22PM	664	677	2	, 1A	6	4,	A	2	6A2	, 1	, 4	84	2	. .	64	7. 6
Wotal	666A	, , 26	2	**AA67**	7.	6828	748	2	**, 222**	, 67	711	8yA	2	**62A4**	76y	**1A8A**
% - pprouch	AA3 %	115%	2%	**9**	9	y85%	, 75 %	2%	**9**	9	775%	883%	2%	**9**	9	9
% Wotal	6y3%	A73 %	2%	**8, 5 %**	9	, A%	y5 %	2%	**A53%**	9	y5%	452%	2%	**617%**	9	9
Lit hes ugd Mooorcaclns	6244	, 67y	2	**A, 71**	9	6771	747	2	**6472**	9	788	817	2	**6264**	9	1, 28
% Lit hes ugd Mooorcaclns	4. 5%	4y5%	2%	**4y5%**	9	415%	445 %	2%	**4y5%**	9	4y5%	4. 5%	2%	**4. 5%**	9	4y5%
Hnuva	y	A	2	**62**	9	.	6	2	**4**	9	.	,	2	**62**	9	, 4
% Hnuva	25%	25%	2%	**25%**	9	28%	25 %	2%	**25%**	9	65%	25%	2%	**65%**	9	28%
Bicaclns og Roud	y	86	2	**8.**	9	86	2	2	**86**	9	A	y	2	**62**	9	664
% Bicaclns og Roud	25%	, 5%	2%	**65 %**	9	A5%	2%	2%	**, 1%**	9	25%	65 %	2%	**65%**	9	65%
Pndnsoriugs	9	9	9	9	7y	9	9	9	9	, 28	9	9	9	9	A y	
% Pndnsoriugs	9	9	9	9	4y5%	9	9	9	9	485 %	9	9	9	9	y. 5%	9
Bicaclns og Crosswulk	9	9	9	9	6	9	9	9	9	4	9	9	9	9	42	
% Bicaclns og Crosswulk	9	9	9	9	, 5%	9	9	9	9	75 %	9	9	9	9	, 65%	9

*Pndnsoriugs ugd Bicaclns og Crosswulk5L: Lnfe3R: Rit he3W WhrF3U: U9WFrg

5566814 - COVID - QUEEN ELIZABETH DRWY @ PRI... - TMC

Sat May 7, 2022
Full Length (10:30 AM-6:30 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 949166, Location: 45.40174, -75.680378

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5566814 - COVID - QUEEN ELIZABETH DRWY @ PRI... - TMC

TueMua y3, 2, ,
M(0FFua l Lun g h (6 : gA -92 l M 1 A92 l M:
P)) C)ussLs g (0loes ur F Mcc:Hav)Ls3BLuRa3l LFLsehOurs3w0(av)Ls cr k cuF3w0(av)Ls cr CHssmu)n:
P)) McRLl Lres
IBs - 474A883i cvuc0cr - 75.72Ay73 1y5.8b29yb

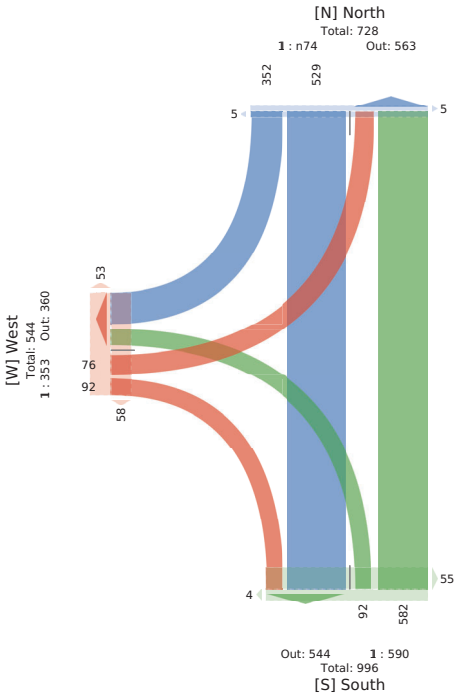
l heRIFLF fa - C0in cONcumu
A22 Ccr seL))uc0cr 6 H3
(LpLur 3N(3h , K 5G43CP

i Id 6 0Hsv0cr	(chlo TcJ eof cJ r F						TcJ oo (chlof cJ r F						t Lse EusoF cJ r F						
S0l L	k	S	W	P pp	1 LFU		S	i	W	P pp	1 LFU		k	i	W	P pp	1 LFU		De
. 2, , 12512y A -92l M	94	55	2	**47**	.		78	, 2	2	**88**	7		A	A2	2	**, ,**	A2		Ab,
A -75l M	92	b2	2	**AA2**	2		5,	A5	2	**8y**	b		Ay	A8	2	**99**	b		**, A2**
A:22l M	, 5	5A	2	**y8**	.		7y	AA	2	**5b**	A8		A7	, ,	2	**98**	A0		**Ay2**
A-A5l M	92	54	2	**b4**	2		54	b	2	**8y**	9		AA	A4	2	**92**	A2		**Ab8**
Scau)	A 7	, 75	2	**984**	7		, 27	57	2	**, 5b**	9A		57	8y	2	**A, A**	7A		**y7b**
*** P ppHuvo**	99.8*	88.7*	2*	**1**	1		y4.A*	, 2.4*	2*	**1**	1		77.8*	55.7*	2*	**1**	1		1
*** Scau)**	A8.8*	9, .b*	2*	**74.9***	1		, y.9*	y., *	2*	**97.5***	1		y., *	4.2*	2*	**A8, ***	1		1
l B%	2.ybb	2.y84	1	**2.b7A**	1		2.b5,	2.8y5	1	**2.45A**	1		2.y47	2.y8,	1	**2.b79**	1		2.b47
i 0loes ur F Mcc:Hav)Ls	A ,	, 9y	2	**954**	1		, 22	57	2	**, 57**	1		59	87	2	**Ay**	1		y92
*** i 0loes ur F Mcc:Hav)Ls**	4b.7*	48.y*	2*	**4y.9***	1		4b.2*	A22*	2*	**4b.7***	1		4b.A*	45.5*	2*	**48.y***	1		4y.8*
BLuRa	A	2	2	**A**	1		A	2	2	**A**	1		A	2	2	**A**	1		9
*** BLuRa**	2.b*	2*	2*	**2.9***	1		2.5*	2*	2*	**2.7***	1		A.4*	2*	2*	**2.b***	1		2.7*
w0(av)Ls cr k cuF	A	b	2	**4**	1		9	2	2	**9**	1		2	9	2	**9**	1		A6
*** w0(av)Ls cr k cuF**	2.b*	9.9*	2*	**, .7***	1		A5*	2*	2*	**A, ***	1		2*	7.5*	2*	**, .5***	1		, .2*
l LFLsehOurs	1	1	1	1	7		1	1	1	1	, 4		1	1	1	1	98		
* l LFLsehOurs	1	1	1	1	A22*		1	1	1	1	49.5*		1	1	1	1	by.b*		1
w0(av)Ls cr CHssmu)n	1	1	1	1	2		1	1	1	1	,		1	1	1	1	5		
* w0(av)Ls cr CHssmu)n	1	1	1	1	2*		1	1	1	1	8.5*		1	1	1	1	A , *		1

L] l LFLsehOurs ur F w0(av)Ls cr CHssmu)n. i - i L03k - k 0loe3S - SoH3W- WlSJ Hl

5566814 - COVID - QUEEN ELIZABETH DRWY @ PRI... - TMC

Sat May 7, 2022
Midday Peak (WKND) (12:30 PM A1:30 PM)
- ll Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
- ll Movements
ID: 949155, Location: 4. 640174, A7. 6580378



Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G . J9, C-

5566814 - COVID - QUEEN ELIZABETH DRWY @ PRI... - TMC

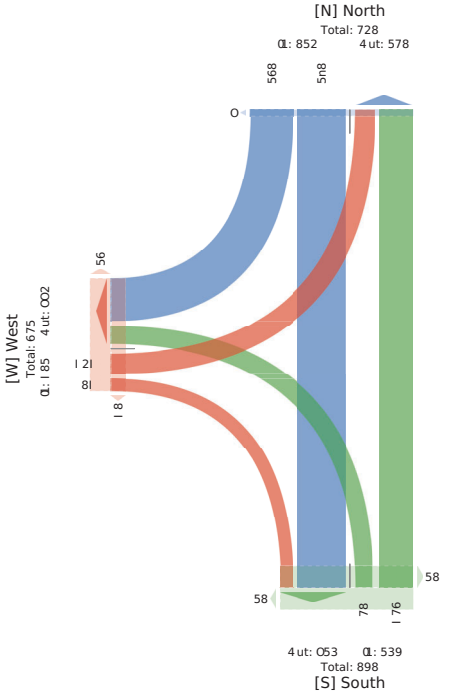
TueMua y3, 2, ,
0M 0Ful Ia g t h (I6:A2 0M - 9:A2 0M(- 1 PF)uCD Ful s i d)
o (Cr GccFc: IHkBRec uwk Mi ei)nanCFc3s FuPa30 FkFce)uwc3I vnanCFc i wDi uk3I vnanCFc i w
r)i cc4 uCl (
o (CMi PF7 Fwc
th : 5. 5b993Hi nuei w . 6f. 2by. 3-y6f9C2AyO

HFB h yFnni w	t i)dR Ti dRN dwk					Ti dR t i)dRN dwk					n Fce EuceN dwk					
SvF F	D	S	W	o KK	0FkU	S	H	W	o KK	0FkU	D	H	W	o KK	0FkU	Bue
, 2, , -26-2y 6:A20M	9,	96	2	b, y	2	. 9	, 6	2	yb	bb	5	, 2	2	, 5	b.	, , y
6:. 60M	9.	99	2	bA2	,	. 9	, ,	2	9O	bA	bA	, ,	2	A6	9	, AA
9:220M	66	6O	2	bbA	b	. y	b6	2	9,	bO	b6	, A	2	AO	bb	, bA
9:b60M	9.	O8	2	b62	2	. 6	, A	2	9O	O	b.	A8	2	62	O	, 9O
Si uC	, . 6	, y6	2	6, 2	A	bO	O6	2	, 95	62	6b	b2b	2	b6,	A6	5. b
* o KKQi unR	. yfb*	6, f5*	2*	-	-	9CL *	Ab8*	2*	-	-	AA8*	99L *	2*	-	-	-
* Si uC	, 9f2*	, 5f, *	2*	66UA*	-	b58*	5f2*	2*	, O8*	-	6f. *	b2fy*	2*	b9L *	-	-
0s %	2f56y	2fy5b	-	2fO8,	-	2f59O	2fO62	-	2f56,	-	2fO62	2fy, O	-	2fyOb	-	2fOyO
HaBRec uwk Mi ei)nanCFc	. , 6	, y,	2	6by	-	bQ	O6	2	, 9y	-	6b	55	2	b62	-	5A
* HaBRec uwk Mi ei)nanCFc	b22*	5OL5*	2*	55L *	-	5OI5*	b22*	2*	55UA*	-	b22*	5OI2*	2*	5Oby*	-	55fA*
s FuPa	2	2	2	2	-	2	2	2	2	-	2	2	2	2	-	2
* s FuPa	2*	2*	2*	2*	-	2*	2*	2*	2*	-	2*	2*	2*	2*	-	2*
I vnanCFc i wDi uk	2	A 2		A	-	,	2	2	,	-	2	,	2	,	-	y
* I vnanCFc i wDi uk	2*	b8*	2*	2B*	-	b8*	2*	2*	2b*	-	2*	, f2*	2*	bUA*	-	2fy*
0FkFce)uvac	-	-	-	-	,	-	-	-	-	, 9	-	-	-	-	Ab	
* 0FkFce)uvac	-	-	-	-	99fy*	-	-	-	-	5, f2*	-	-	-	-	y5I6*	-
I vnanCFc i wr)i cc4 uCl	-	-	-	-	b	-	-	-	-	.	-	-	-	-	O	
* I vnanCFc i wr)i cc4 uCl	-	-	-	-	AAA*	-	-	-	-	OI2*	-	-	-	-	, 2I6*	-

[1] 0FkFce)uvac uwk I vnanCFc i wr)i cc4 uCl f H: HFp3D: DvBRe3S: SRd3W: W-S d)w

5566814 - COVID - QUEEN ELIZABETH DRWY @ PRI... - TMC

Sat May 7, 2022
PM Peak (WKND) (1:30 PM - O:30 PM) - v r elaHPeak o uA
CHHs laILeL (i gntLadc MutulByEHL, o ear y, PeceIrlgdL, RgBy EHLud wuac, RgBy EHLud s luILmaRk)
CHHMur el edtL
9D: 454. OQ i uEatgud: 516:0. 75, -716O:0378



Plur g:ec by: s gy uf v ttama
. 00 s udIteHatgud Dl,
Nepead, v N, K2G 1J4, s C

5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

TueMua y3, 2, ,
0Fll Lngt :h (62:A2 - M9I:A2 PM)
- ll Clussns (Lit hes ugd Mooorcaclns3Hnuva3Pndnse:iugs3Bicaclns og Roud3Bicaclns og Crosswulk)
- ll Movnmnges
ID: 476A883Locueiog: 875A47139y75I. 86y1

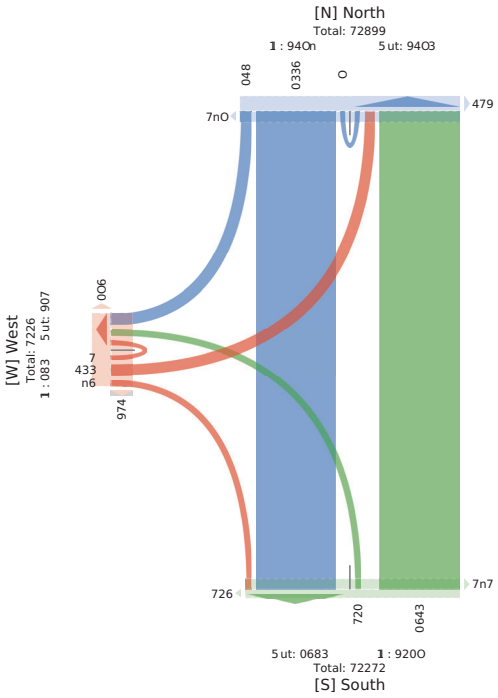
Lut Dirnceiog	Noreh ToFehboFgd					ToFeh NorehboFgd					E nse SusiboFgd					
Wmn	R	W	U	- pp	Pnd*	W	L	U	- pp	Pnd*	R	L	U	- pp	Pnd*	Ige
, 2, , 92?Ey 62:22- M	, 7	, 4A	2	A6.	62	A21	y	2	A6A	62	.	, 1	2	, .	84	174
66:22- M	8y	162	2	17y	8y	7. 8	6.	2	12,	, 7	6A	81	2	74	6, 6	6A6.
6, :22PM	7y	1AA	2	142	11	746	.	2	744	A	.	82	2	8.	667	6Ay
6:22PM	78	1. 4	2	y8A	yy	1, A	67	2	1A	8,	4	A1	2	87	672	68, 1
, :22PM	11	14,	,	y12	. 7	18y	68	2	116	12	4	7.	2	1y	688	68. .
A:22PM	14	177	2	y, 8	74	11.	6y	2	1. 7	A8	62	16	6	y,	6, 2	68. 6
8:22PM	76	7y2	2	1, 6	4A	114	6y	2	1. 1	82	6,	12	2	y,	62.	6Ay4
7:22PM	76	761	2	71y	A7	7. 1	8	2	742	, 8	6A	8y	2	12	4,	6, 6y
1:22PM	61	, A6	2	, 8y	67	, 18	8	2	, 1.	y	A	68	2	6y	8A	7A
Wbnal	8A1	8. . 4	,	7A, y	8. y	84A	628	2	728,	, . 2	y4	A .	6	81.	48,	62. Ay
% - pprouch	. 5 %	465 %	2%	9	9	4y5#%	, 36%	2%	9	9	615#%	. , 5#%	25 %	9	9	9
% Wbnal	852%	875%	2%	845 %	9	8751%	652%	2%	815*%	9	25y%	A3#%	2%	859%	9	9
Lit hes ugd Mooorcaclns	A42	812A	2	844A	9	81A8	622	2	8yA8	9	y8	A86	6	861	9	6268A
% Lit hes ugd Mooorcaclns	. 48#%	485 %	2%	4Ay%	9	4A6 %	415 %	2%	4A6#%	9	4Ay%	. y5#%	622%	. . 5#%	9	4A3#%
Hnuva	,	4y	2	44	9	4.	6	2	44	9	,	6	2	A	9	, 26
% Hnuva	25*%	, 5*%	2%	65#%	9	, 5*%	65*%	2%	, 5*%	9	, 5*%	25#%	2%	25*%	9	65#%
Bicaclns og Roud	88	6. 4	,	, A7	9	, 21	A	2	, 24	9	A	81	2	84	9	84A
% Bicaclns og Roud	625*%	A6#%	622%	88#%	9	85 %	, 5#%	2%	88*%	9	A6 %	665#%	2%	625*%	9	85*%
Pndnseriugs	9	9	9	9	886	9	9	9	9	, 8.	9	9	9	9	. 1.	
% Pndnseriugs	9	9	9	9	423%	9	9	9	9	. . 5I%	9	9	9	9	4, 36%	9
Bicaclns og Crosswulk	9	9	9	9	81	9	9	9	9	A,	9	9	9	9	y8	
% Bicaclns og Crosswulk	9	9	9	9	43#%	9	9	9	9	66?#%	9	9	9	9	y5#%	9

*Pndnseriugs ugd Bicaclns og Crosswulk5L: Lnfe3R: Rit he3W WhrF3U: U9WFrg

Providnd ba: Cien of Oeuwu
622 Cogsenlluciog Dr3
Nnpnug3ON3K, G 7J43C-

5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

Sat May 7, 2022
Full Length (10:30 AM-6:30 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 941355, Location: 54.3946, -74.685176



Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 4J9, CA

5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

TueMua y3, 2, ,
MOFFua l Lun g h (6 : gA -91 l M PA91 l M:
) (Cs Gii i Li gl0 br ei ucF MHeHaBaBCLi 3RLuwa3l LFLie v0uci 3k 0BaBCLi He mHuF3k 0BaBCLi He s vHiI uGi:
) (CMHeLDLcei
46 - 71A8993dHBucOHe - 913871. 3Py15 b9Ay.

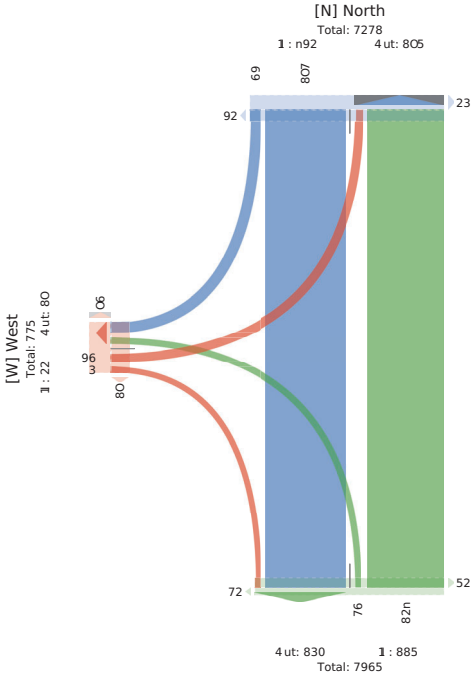
l vHeLFLF f a - s 0n HONeuu l u
A22 s He i eLCOdHe 6 v3
(LpLuc3N(3h , K 1G73s)

dLo 6 0LB0He	(Hwr ThFer f HFcF				ThFer (Hwr f HFcF				t Lie Euie f HFcF				
SODL	m	S	W	) pp	l LFU	S	d	W	) pp	l LFU	m	d	W	) pp	l LFU	Ace
, 2, , B21B2y A -911 M	A,	Ay,	2	Ab9	, 8	A 8	,	2	A. 1	AA	8	y	2	A2	8.	817
A-22I M	A.	Ay.	2	A7,	, ,	A .	9	2	Ay2	A2	,	9	2	.	81	8. b
A-AI1 M	A,	A 9	2	Ay.	, 8	At A	8	2	At9	b	A	b	2	7	81	887
A-82I M	A8	A 7	2	Ab,	Al	A y	.	2	Ay8	7	8	A	2	A7	9y	8y9
SHaC	18	. bA	2	y89	b8	. 9y	At	2	. . ,	8b	7	81	2	99	At 8	A892
*) ppHaB	y5 *	7, 3*	2*	P	P	7y5y*	. 3*	2*	P	P	. 2'3 *	y73 *	2*	P	P	P
* SHaC	83y*	9y3*	2*	1A2*	P	995'*	A2*	2*	9. 2*	P	25 *	. 5*	2*	85A*	P	P
l R%	25'1b	25'y.	P	25'b2	P	25'y.	25 , 1	P	25'. 7	P	25 . y	2'3 Ab	P	25 3yb	P	25'. 1
d0bre i ucF MHeHaBaBCLi	9.	. 8,	2	. yb	P	. 28	At	2	. Ab	P	b	, 7	2	8y	P	A888
* d0bre i ucF MHeHaBaBCLi	b. 3*	7, 3*	2*	7, 5*	P	78 5 *	A22*	2*	783 5*	P	bb5'*	b, 5'*	2*	b95A*	P	7, 5 *
R1uwa	2	A	2	A	P	A9	2	2	A9	P	2	2	2	2	P	, .
* R1uwa	2*	A3*	2*	A5 *	P	, 5 *	2*	2*	, 5A*	P	2*	2*	2*	2*	P	A3*
k0BaBCLi He mHuF	y	8y	2	99	P	82	2	2	82	P	A	.	2	y	P	bA
* k0BaBCLi He mHuF	A85 *	15*	2*	. 52*	P	95 *	2*	2*	951*	P	AA5*	Ay5A*	2*	A157*	P	15 *
l LFLi e0uci	P	P	P	P	y1	P	P	P	P	88	P	P	P	P	A8,	
* l LFLi e0uci	P	P	P	P	725*	P	P	P	P	b. 3*	P	P	P	P	7, 3*	P
k0BaBCLi He s vHi l u0i	P	P	P	P	b	P	P	P	P	1	P	P	P	P	AA	
* k0BaBCLi He s vHi l u0i	P	P	P	P	75 *	P	P	P	P	A85 *	P	P	P	y5 *	P	

[1] l LFLi e0uci uc F k0BaBCLi He s vHi l u0i 5d - d L0i3m- m0br e3S - Sr vJ 3W- WP5J vc

5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

Sat May 7, 2022
Midday Peak (WKND) (12:3APM - 1:3APM)
l (Cs GiLeL (gihntLaod Mr trcHyHeL, v eaBy, PedeLtciaoL, RiHyHeLr o wr ad, RiHyHeLr o s or LLmaCk)
l (CMr BeI eotL
9D: 4A1533, g r Hatir o: 3A54A6, -7A683176



Pcr Bided by: s ity r f Ottama
100 s r oLteCatir o Dc,
Nepeao, ON, K2G AJ4, s l

5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

TueMua y3, 2, ,
0M 0Ful In g t h (L, G A0M - 96 A0M(- 1 PF)uCDFul s i d)
o (Cr G0ccFc LHeBRec uwk Mi ei)nanEc3s FuPa30FkFce)uwc3I vnanEc i w Di uk3I vnanEc i w
r)i cc4 uCL(
o (CMi PF7 Fwec
8h 65A 9: : 3Hi nueei w6: A595Af 3-yAfO . yf

0)i PkkFk Na6r van i p l eou4 u
. 22 r i wceFCOeei wh)3
t FKFuw31 t 3g , G Af53r o

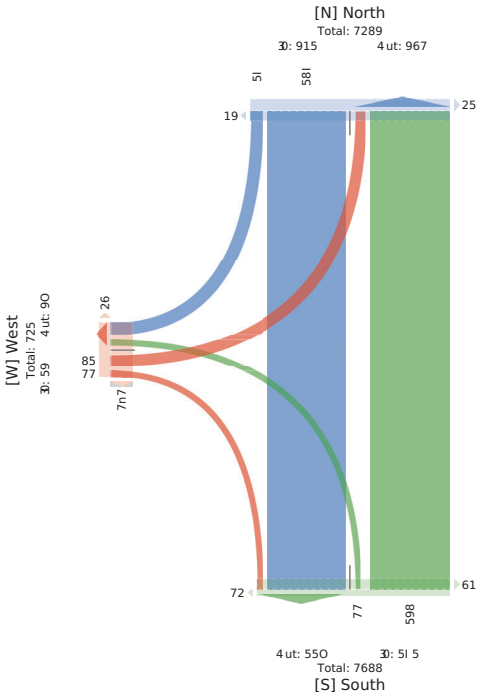
HFB h y)Pnwi w	t i)dR Ti deRN dwk					Ti deR t i)dRN dwk					n Fce EuceN dwk					
SvF F	D	S	W	o KK	0FkU	S	H	W	o KK	0FkU	D	H	W	o KK	0FkU	Ave
, 2, , -2A-2y , 6 A0M	. y	. f y	2	. O	, O	. y:	2	2	. y:	. y	9	. ,	2	. A	: 9	9y9
96I20M	. O	. yO	2	. 5f	5	. A5	:	2	. f 9	y	,	. 2	2	. ,	9A	9y.
96 A0M	. .	. A	2	. f 9	, 2	. f 2	A	2	. f A	. .	:	, 9	2	. y	: 2	9AA
96I20M	. ,	. f .	2	. O0	. f	. Q	,	2	. O	. .	,	. .	2	. 9	. f	9O2
SLuC	f O	f AO	2	y, f	y9	f yA	. .	2	f OI	: f	. .	Af	2	f y	. : :	. : y5
* o KKQLuuR	5h *	52lf *	2*	-	-	5Oh *	. lf *	2*	-	-	. f h *	O8lf *	2*	-	-	-
* SLuC	: lf *	: : bA*	2*	: 5h *	-	: Af *	2hy*	2*	: f h *	-	2hy*	9hO*	2*	: bA*	-	-
Os %	2l5. ,	2l5, f	-	2l5, :	-	2l52y	2bAA2	-	2l5. ,	-	2lf OO	2bAOy	-	2hI 2,	-	2l5O
HeBRec uwk Mi ei)nanEc	f .	f 99	2	f 5:	-	f , ,	. 2	2	f 9,	-	. .	A	2	f A	-	. 95,
* HeBRec uwk Mi ei)nanEc	O5h y*	5f h *	2*	5Af *	-	5, h *	52l5*	2*	5, h *	-	. 22*	5f h *	2*	5yh2*	-	5: h *
s FuPa	.	. A	2	. f	-	. 9	.	2	. :	-	2	2	2	2	-	92
* s FuPa	. bA*	, h9*	2*	, h *	-	. l5*	5h *	2*	, h2*	-	2*	2*	2*	2*	-	, h2*
I vnanEc i w Di uk	f	. 2	2	. f	-	: 2	2	2	: 2	-	2	,	2	,	-	AO
* I vnanEc i w Di uk	ChO*	. bA*	2*	, h *	-	A5*	2*	2*	AhO*	-	2*	9lf *	2*	9h2*	-	9l5*
0FkFce)uwc	-	-	-	-	f A	-	-	-	-	: :	-	-	-	-	. , 2	
* 0FkFce)uwc	-	-	-	-	O5l2*	-	-	-	-	5A)y*	-	-	-	-	O0l9*	-
I vnanEc i w r)i cc4 uCL	-	-	-	-	O	-	-	-	-	,	-	-	-	-	, :	
* I vnanEc i w r)i cc4 uCL	-	-	-	-	. , l2*	-	-	-	-	: l9*	-	-	-	-	. f h *	-

[1] 0FkFce)uwc uwk I vnanEc i w r)i cc4 uCL bH6HFp:3D6DvERe3S6SR)d3W6W-Sd)w

5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

Sat May 7, 2022
PM Peak (WKND) (2t: 3 PM - Ot 3 PM) - v r elatHPeak o uAl
CHHs ldILeL(i gntLadc MutulBy Hd L, o ear y, PeceItlgudL, RgBy Hd Lud wuac, RgBy Hd Lud s luLlmaRk)
CHHMur el edtL
9D1435Oi : , i uEatgud1: 3.O436, -73.68: 576

Ottawa
Plur g:ec by1s gy uf v ttama
500 s udIteHHtgud Dl,
Nepead, v N, K2G 3J4, s C



5566814 - COVID - BANK ST @ ECHO DR - MAY 07... - TMC

TueMua y3, 2, ,
0FIl Lngt ch (62:A2 - M9l:A2 PM)
- ll Clussns (Lit hes ugd Mooorcaclns3Hnuva3Pndnserius3Bicaclns og Roud3Bicaclns og Crosswulk)
- ll Movnmnges
ID: 476A853Locudog: 87.A475y439y7.158AA8

Ottawa
Providnd ba: Ciun of Oeuwu
622 Cogsanlludog Dr3
Nnpnug3ON3K, G 7J43C-

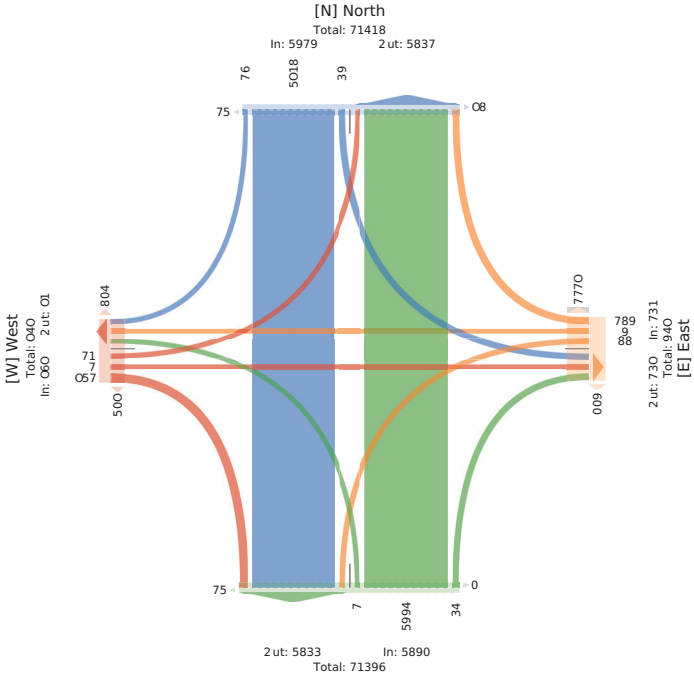
Lnt Dirncsiog	Norh ToFehboFgd					Euse S nseboFgd					ToFeh NorehboFgd					S use EuseboFgd					
Wmn	R	W	L	U	- pp Pnl*	R	W	L	U	- pp Pnl*	R	W	L	U	- pp Pnl*	R	W	L	U	- pp Pnl*	lge
, 2, , 9279y 62:22- M	2	, 58	7	2	**, 54** 6	4	2	8	2	**6A** 82	y	A2A	6	2	**A66** 2	68	2	6	2	**67** A4	**1, 5**
66:22- M	2	1, 6	62	2	**1A6** 5	68	2	1	2	**, 2** 688	66	176	2	2	**11,** 6	A2	2	2	2	**A2** 622	**6A8A**
6, :22PM	6	1AA	6A	2	**18y** 8	, 2	2	8	2	**, 8** 6y1	5	182	2	2	**185** 2	A6	2	,	2	**AA** 6, 2	**6A7,**
6:22PM	6	18y	67	2	**11A** A	65	6	1	2	**, 7** 656	66	1, ,	2	2	**1AA** 8	AA	2	6	2	**A8** 6A8	**6A77**
. :22PM	,	y6,	67	2	**y, 4** y	65	,	1	2	**, 1** , 81	68	177	2	2	**114** 7	A5	2	6	2	**A4** 6y6	**681A**
A:22PM	2	y, 2	1	2	**y, 1** 8	, 2	2	7	2	**, 7** A27	6y	154	2	2	**y21** 2	Al	6	6	2	**A5** 677	**6847**
8:22PM	1	154	68	2	**y24** 8	, 7	2	1	2	**A6** , y6	6,	y, 8	2	2	**yAl** 4	AA	2	,	2	**A7** 6, y	**6766**
7:22PM	1	744	6,	2	**16y** 5	6A	2	8	2	**6y** 821	6,	y65	2	2	**yA2** A	, y	2	6	2	**, 5** 6, 4	**6A4,**
1:22PM	2	, 44	A	2	**A2,** 2	1	2	A	2	**4** 661	1	AA1	2	2	**A8,** 2	4	2	6	2	**62** y7	**11A**
Wnnl	61	7, 28	4A	2	**7A6A** A4	68A	A	88	2	**642** 6557	45	7A\5	6	2	**78Ay** , ,	, 76	6	62	2	**, 1,** 6272	**66, 2,**
% - pprouch	2.A%	4y.4%	6.5%	2%	**9** 9	y7.A%	6.1%	, A, %	2%	**9** 9	6.5%	45., %	2%	2%	**9** 9	47.5%	2.8%	A.5%	2%	**9** 9	9
% Wnnl	2.6%	81.7%	2.5%	2%	**8y.8%** 9	6.A%	2%	2.8%	2%	**6.y%** 9	2.4%	8y.y%	2%	2%	**85.7%** 9	, , %	2%	2.6%	2%	**, A%** 9	9
Lit hes ugd Mooorcaclns	2	85A2	y5	2	**8425** 9	626	2	88	2	**687** 9	y7	8477	2	2	**72A2** 9	, A7	6	A	2	**, A4** 9	62A ,
% Lit hes ugd Mooorcaclns	2%	4, .5%	5A4%	2%	**4, .8%** 9	y2.1%	2%	622%	2%	**y1.A%** 9	y1.7%	4, .5%	2%	2%	**4, .7%** 9	4A1%	622%	A2.2%	2%	**46., %** 9	4, .6%
Hnuva	2	626	2	2	**626** 9	2	2	2	2	**2** 9	2	627	2	2	**627** 9	2	2	2	2	**2** 9	, 21
% Hnuva	2%	6.4%	2%	2%	**6.4%** 9	2%	2%	2%	2%	**2%** 9	2%	, 2%	2%	2%	**6.4%** 9	2%	2%	2%	2%	**2%** 9	6.5%
Bicaclns og Roud	61	, yA	67	2	**A28** 9	8,	A	2	2	**87** 9	, A	, y5	6	2	**A2,** 9	61	2	y	2	**, A** 9	1y8
% Bicaclns og Roud	622%	7., %	61.6%	2%	**7.y%** 9	4.8%	622%	2%	2%	**, Ay%** 9	A.7%	7., %	622%	2%	**7.1%** 9	1.8%	2%	y2.2%	2%	**5.5%** 9	1.2%
Pndnseriugs	9	9	9	9	A6 9	9	9	9	9	9 657A	9	9	9	9	9 , ,	9	9	9	9	9 6261	
% Pndnseriugs	9	9	9	9	9 y4.7%	9	9	9	9	945.A%	9	9	9	9	9622%	9	9	9	9	941.5%	9
Bicaclns og Crosswulk	9	9	9	9	5	9	9	9	9	9 A	9	9	9	9	9 2	9	9	9	9	9 A8	
% Bicaclns og Crosswulk	9	9	9	9	9, 2.7%	9	9	9	9	9 6.y%	9	9	9	9	9 2%	9	9	9	9	9 A, %	9

*Pndnseriugs ugd Bicaclns og Crosswulk. L: Lnfe3R: Rit he3W WhrF3U: U9WFrg

5566814 - COVID - BANK ST @ ECHO DR - MAY 07... - TMC

Sat May 7, 2022
Full Length (10:30 AM-6:30 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 94135. , Location: 548894. 79, -746. 5335

Ottawa
Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 4J9, CA



5566814 - COVID - BANK ST @ ECHO DR - MAY 07... - TMC

TueMua y3, 2, ,
MOFFua l Lun gi h (6 : gAA-92 1 M PA -92 l M:
1)) C)ussLs gi (lloes ur F Mcec Havj)Ls3BLuRa3l LFLseHlurs3w0vav)Ls cr k cuF3w0vav)Ls cr CHssmu)n:
1)) McRL1 Lr es
Db - 47A9853i cvudCr - 87.9475y43By7.b58998

Ottawa
l HtRIFLF a - C0n cONeumu
A22 Ccr seL))udCr 6 H3
(LpLur 3N(3h , K 7G43C1

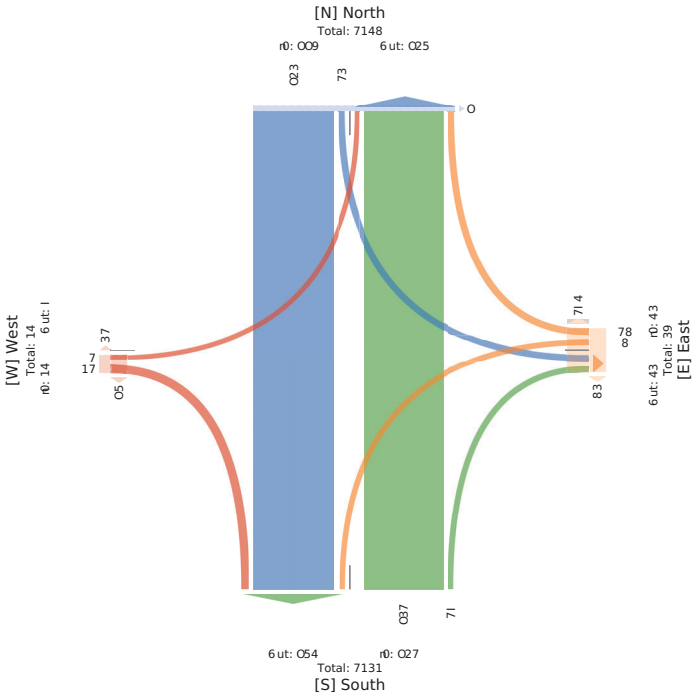
i Ld 6 OHsvdr Sll L	(chlo TcEnofcErF k	S	i	W	1 pp l LFU	J use t LsefcErF k	S	i	W	1 pp l LFU	TcEno (chlofcErF k	S	i	W	1 pp l LFU	t Lse J usefcErF k	S	i	W	1 pp l LFU	Dle
, 2, , 8279y AA-921 M	2	Ay9	7	2	**Ay5** 8	9	2	A	2	**8** 95	9	Ab5	2	2	**AyA** 2	4	2	2	2	**4** , 8	**9b,**
AA-871 M	2	A85	,	2	**A72** A	9	2	9	2	**b** 88	9	Ab9	2	2	**Abb** 2	b	2	2	2	**b** , 4	**9, 5**
A, -221 M	2	A74	9	2	**Ab,** A	b	2	,	2	**5** 7A	9	AyA	2	2	**Ay8** 2	5	2	A	2	**4** , 5	**979**
A, -A71 M	2	Ay8	8	2	**Ay5** 2	7	2	A	2	**b** 89	A	A94	2	2	**A82** 2	5	2	2	2	**5** , 4	**99,**
Scen)	2	b78	A8	2	**bb5** b	Ay	2	y	2	**, 8** Ayb	A2	b8A	2	2	**b7A** 2	9A	2	A	2	**9,** AA2	**A0y7**
*** 1 ppHuvo**	2*	4y.4*	, A*	2*	**P** P	y2.5*	2*	, 4., *	2*	**P** P	A.7*	45.7*	2*	2*	**P** P	4b.4*	2*	9.A*	2*	**P** P	P
*** Scen)**	2*	8y.b*	A2*	2*	**85.b*** P	A, *	2*	2.7*	2*	**Ay*** P	2.y*	8b.b*	2*	2*	**8y.9*** P	, .9*	2*	2.A*	2*	**, .9*** P	P
l B%	P	2.4A	2.b72	P	**2.427** P	2.5y7	P	2.759	P	**2.5y7** P	2.759	2.495	P	P	**2.48,** P	2.42b	P	2., 72	P	**2.599** P	2.48A
i 0lloes ur F Mcec Hav)Ls	2	b2y	A0	2	**b, 2** P	A8	2	y	2	**, A** P	y	74y	2	2	**b28** P	, 4	2	A	2	**92** P	A y7
*** i 0lloes ur F Mcec Hav)Ls**	2*	4, .5*	4, .4*	2*	**4, .5*** P	5, .8*	2*	A2*	2*	**5y.7*** P	y2.2*	49.A*	2*	2*	**4, .5*** P	49.7*	2*	A22*	2*	**49.5*** P	4, .y*
BLuRa	2	Ay	2	2	**Ay** P	2	2	2	2	**2** P	2	A6	2	2	**A5** P	2	2	2	2	**2** P	97
*** BLuRa**	2*	, .b*	2*	2*	**, .7*** P	2*	2*	2*	2*	**2*** P	2*	, .5*	2*	2*	**, .5*** P	2*	2*	2*	2*	**2*** P	, .7*
w0vav)Ls cr k cuF	2	92	A	2	**9A** P	9	2	2	2	**9** P	9	, b	2	2	**, 4** P	,	2	2	2	**,** P	b7
*** w0vav)Ls cr k cuF**	2*	8.b*	y.A*	2*	**8.b*** P	Ay.b*	2*	2*	2*	**A, .7*** P	92.2*	8.A*	2*	2*	**8.7*** P	b.7*	2*	2*	2*	**b.9*** P	8.y*
l LFLseHlurs	P	P	P	P	P b	P	P	P	P	P Ay8	P	P	P	P	P 2	P	P	P	P	P A24	
* l LFLseHlurs	P	P	P	P	P A22*	P	P	P	P	P 45.4*	P	P	P	P	P	P	P	P	P	P 44.A*	P
w0vav)Ls cr CHssmu)n	P	P	P	P	P 2	P	P	P	P	P ,	P	P	P	P	P 2	P	P	P	P	P A	
* w0vav)Ls cr CHssmu)n	P	P	P	P	P 2*	P	P	P	P	P AA*	P	P	P	P	P	P	P	P	P	P 2.4*	P

L1 l LFLseHlurs ur F w0vav)Ls cr CHssmu)n. i - i LO3k - k 0lloe3S- SoHE3W- WBSEHt

5566814 - COVID - BANK ST @ ECHO DR - MAY 07... - TMC

Sat May 7, 2022
Midday Peak (WKND) (11:30 AM - 12:30 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 94135. , Location: 546394. 79, -746. 5335

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 4J9, CA



5566814 - COVID - BANK ST @ ECHO DR - MAY 07... - TMC

Tue Mua y3, 2, ,
0M 0Ful In g t h (I6 0M : A 0M(: - 9FluPP0Ful) Cs 1
i PPd RuooFo Ir cHveo uBR MGtCIwawPFo3) Fu9a 30 FRFoeluBo3k cwawPFo CB mCuR3k cwawPFo CB
d lCool ulP (
i PPM C9FD FBuo
4h 78A5. 6b3r CwaeCB76Af. 8Aby83: yAfCb6. . 6

Provided by: City of Ottawa
0 lC9cRFRNa7d cm Cp- cmul u
522 d CBoeFRRuCB h I3
t FKFuB3- t 3g , G A83d i

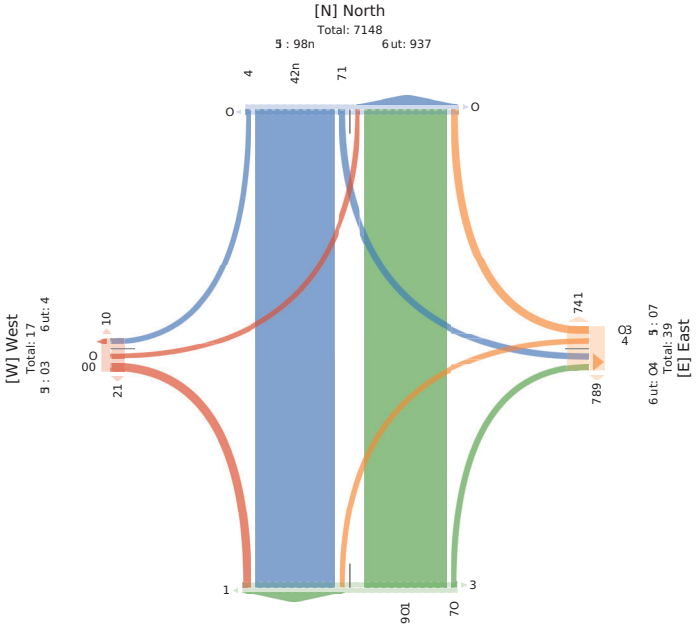
r FH h clFweCB	t Clev TGs ev NGs BR						n Euoe n FoeNGs BR						t ClevNGs BR						n Foe EuooNGs BR						
ScDF	m	S	r	W	i KK	0FRL	m	S	r	W	i KK	0FRL	m	S	r	W	i KK	0FRL	m	S	r	W	i KK	0FRL	4Be
, 2, , : 2A2y 67220M	5	5b.	,	2	5bO	2	O	2	5	2	y	Oy	6	5y2	2	2	5y6	O	b	2	2	2	b	, y	. yA
675A0M	5	5O2	6	2	5OA	5	.	2	5	2	6	82	.	5y8	2	2	5b,	.	6	2	2	2	6	6b	. AA
67. 20M	6	5y6	6	2	5b,	5	5,	2	.	2	5A	6A	.	5yb	2	2	5b5	5	8	2	,	2	55	. .	. b8
676A0M	2	5y,	6	2	5yO	.	6	2	5	2	A	O8	,	58y	2	2	588	2	5,	2	2	2	5,	58	. 8,
SCmP	O	Ob8	56	2	y28	6	, A	2	O	2	. 5	, y5	5,	y, 6	2	2	y. O	8	. .	2	,	2	. A	5, y	5A65
* i KKCiww	2fb*	8yf, *	, f2*	2*	:	:	h2fO*	2*	58fi6*	2*	:	:	5fO*	8bf6*	2*	2*	:	:	86f. *	2*	Afy*	2*	:	:	:
* SCmP	2f6*	6AfO*	2fi*	2*	6OB*	:	5fy*	2*	2f6*	2*	, f5*	:	2fb*	6yf8*	2*	2*	6bfy*	:	, f, *	2*	2f5*	2*	, f, *	:	:
0) %	:	2fi. O	2fi5y	:	2fi65	:	2fA A	:	2fA22	:	2fA58	:	2fy A2	2fB28	:	:	2fi5A	:	2fy, ,	:	:	:	2fy, ,	:	2fiOO
r cHveouBR MGtCIwawPFo	2	O y	55	2	Ofb	:	, 5	2	O	2	, y	:	5,	Oy6	2	2	ChO	:	, O	2	2	2	, O	:	5. by
* r cHveouBR MGtCIwawPFo	2*	8, fA*	ybfO*	2*	85f6*	:	b6f2*	2*	522*	2*	byf5*	:	522*	8. f5*	2*	2*	8. f, *	:	ybfb*	2*	2*	2*	y6f. *	:	85fb*
) Fu9a	2	55	2	2	55	:	2	2	2	2	2	:	2	5,	2	2	5,	:	2	2	2	2	2	:	, 6
*) Fu9a	2*	5fO*	2*	2*	5fO*	:	2*	2*	2*	2*	2*	:	2*	5fb*	2*	2*	5fb*	:	2*	2*	2*	2*	2*	:	5fO*
k cwawPFo CB mCuR	O	65	.	2	A2	:	6	2	2	2	6	:	2	. y	2	2	. y	:	y	2	,	2	8	:	522
* k cwawPFo CB mCuR	522*	O2*	, 5f6*	2*	y5*	:	5O2*	2*	2*	2*	5, f8*	:	2*	Af5*	2*	2*	Af2*	:	, 5f, *	2*	522*	2*	, Afy*	:	OfO*
0FRFoeluBo	:	:	:	:	:	6	:	:	:	:	:	, OA	:	:	:	:	:	8	:	:	:	:	:	5, 2	
* 0FRFoeluBo	:	:	:	:	:	522*	:	:	:	:	:	: 8yfb*	:	:	:	:	:	522*	:	:	:	:	:	: 86fA*	:
k cwawPFo CB d lCool ulP	:	:	:	:	:	2	:	:	:	:	:	O	:	:	:	:	:	2	:	:	:	:	:	y	
* k cwawPFo CB d lCool ulP	:	:	:	:	:	2*	:	:	:	:	:	, f, *	:	:	:	:	:	2*	:	:	:	:	:	AfA*	:

[1] 0FRFoeluBo uBR k cwawPFo CB d lCool ulP f r 7r Fpt8m7 mdHvt8S7 S v ls 3W7W.S s lB

5566814 - COVID - BANK ST @ ECHO DR - MAY 07... - TMC

Sat May 7, 2022
PM Peak (WKND) (1 PM : 3 PM) : - Oevarr Peak l Hov
u rr AraCtCC(s li gtCahn MHHdydreC, l eaOy, PeneCtvlahC, c IdydreCHh BHsn, c IdydreCHh AvHCCRark)
u rr MHOewehtC
nD193451. , s HlatIHhI 136593. 79, : 736. 1551

PvHCInen byI Alty Hf - ttaRa
400 AHhCterratIHh Dv,
Nepeah, - N, K2G 3J9, Au



5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

Tue Mua y3, 2, ,
0Fll Lngt rh (62:.A2 - M9l:A2 PM)
- ll Clussns (Lit hes ugd Moeorcaclns3Hnuva3Pndnseriugs3Bicaclns og Roud3Bicaclns og Crosswulk)
- ll Movnmnges
ID: 476A713Locueiog: 875Avyyy, 39y75l. 7827

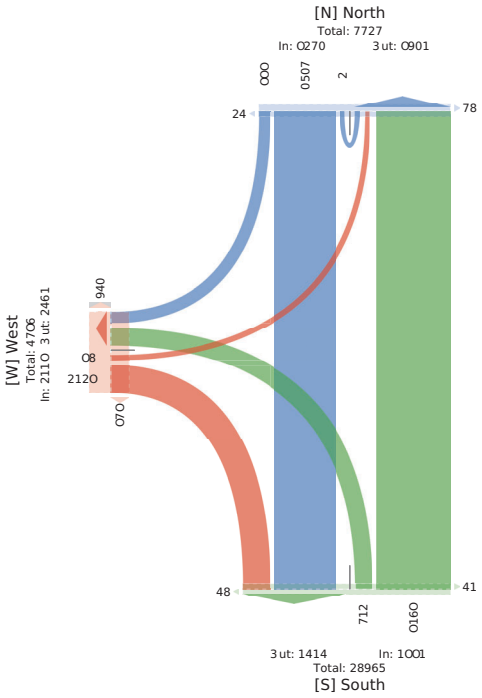
Providnd ba: Cien of Oeuwu
622 Cogsenlluciog Dr3
Nnpnug3ON3K, G 7J43C-

Lnt Dimneiog	Noreh ToFehboFgd					ToFeh NorehboFgd					E nse SusehoFgd					
Wmn	R	W	U	- pp	Pnd*	W	L	U	- pp	Pnd*	R	L	U	- pp	Pnd*	lge
, 2, , 9279Ey 62:22- M	, 6	, , 6	2	, 8,	.	, y7	82	2	A67	2	14	2	2	14	81	1, 1
66:22- M	7,	871	2	72.	1	777	628	2	174	8	6y8	,	2	6y1	4A	6A8A
6, :22PM	87	87y	2	72,	6A	78A	62y	2	172	66	6. 7	1	2	646	688	6A8A
6:22PM	74	884	2	72.	66	7A2	668	2	188	6	, 27	.	2	, 6A	676	6A17
. :22PM	78	841	2	772	A	718	62.	2	1y,	A	. , 2	1	2	, , 1	6. 1	688.
A:22PM	77	766	2	711	.	7. A	66A	2	141	y	, 68	A	2	, 6y	617	68y4
8:22PM	11	764	2	7. 7	6,	1, 8	661	2	y82	y	6. A	y	2	642	67y	6767
7:22PM	74	867	2	8y8	. 4	1, y	621	2	yAA	62	6. 8	7	2	6. 4	6, 2	6A41
1:22PM	AA	, 68	6	, 8.	68	, 4A	8A	2	AA1	.	. 2	A	2	. A	87	11y
Vbnil	888	Ay A	6	86. A	4,	8748	. 76	2	7887	87	6768	82	2	6778	662y	666. ,
% - pprouch	623%	, 43%	2%	9	9	, 83%	673%	2%	9	9	4y3%	, 5%	2%	9	9	9
% Vbnil	85%	A68%	2%	Ay3%	9	863%	y3%	2%	8. 5y%	9	6A5%	23%	2%	6A8A%	9	9
Lit hes ugd Moeorcaclns	862	A8. 1	6	A 4y	9	8, A	. , 2	2	727,	9	68A	A8	2	68y,	9	628, 6
% Lit hes ugd Moeorcaclns	4, 5%	4A6%	622%	4A5 %	9	4, 3%	413%	2%	4, 5 %	9	475%	. 75%	2%	485y%	9	4A5 %
Hnuva	6	47	2	41	9	62,	7	2	62y	9	,	2	2	,	9	, 27
% Hnuva	25 %	, 5%	2%	, 58%	9	, 5 %	23%	2%	, 52%	9	23%	2%	2%	25%	9	65 %
Bicaclns og Roud	AA	67y	2	642	9	, 12	, 1	2	, . 1	9	y8	1	2	. 2	9	771
% Bicaclns og Roud	y3%	85 %	2%	85%	9	73%	A6%	2%	75%	9	85%	675%	2%	75%	9	75%
Pndnseriugs	9	9	9	9	42	9	9	9	9	82	9	9	9	9	6272	
% Pndnseriugs	9	9	9	9	4y5 %	9	9	9	9	. . 5%	9	9	9	9	483A%	9
Bicaclns og Crosswulk	9	9	9	9	.	9	9	9	9	7	9	9	9	9	7y	
% Bicaclns og Crosswulk	9	9	9	9	, 5 %	9	9	9	9	663%	9	9	9	9	73%	9

*Pndnseriugs ugd Bicaclns og Crosswulk5L: Lnfe3R: Rit he3W WhrF3U: U9WFrg

5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

Sat May 7, 2022
Full Length (10:30 AM-6:30 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 941346, Location: 54.397772, -74.684504



Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 4J9, CA

5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

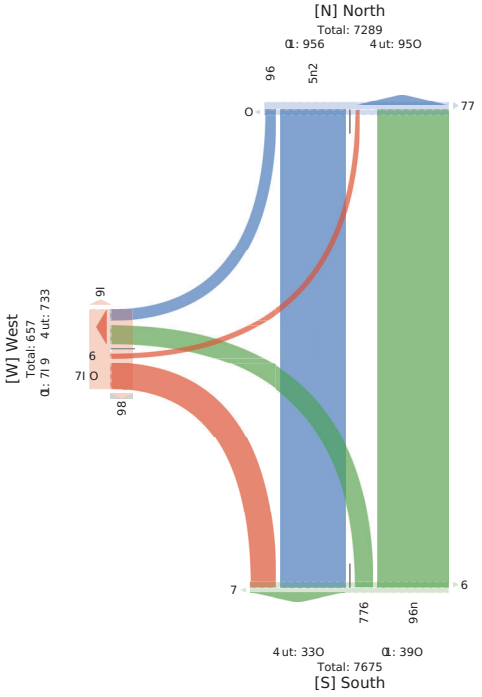
Tue Mua y3, 2, ,
M0FFua l Lun g t h (6 : gAA-92 1 M PA -92 l M:
1)) CjussLs gj 0loes urF McacHavJLs3BLuRa3l LFLseHlurs3w0(avJLs cr k cuF3w0(avJLs cr CHssmu)n:
1)) McRLl Lres
IB - 47A9783i cvue0cr - 57.94yyy, 3Iy7.8b7527

i Ld 6 OHsvetcr	(cHo TcJ eof cJ r F					Tc J eo (cHo f cJ r F					t Lse Euse f cJ r F					
S0l L	k	S	W	**1 pp**	l LFU	S	i	W	**1 pp**	l LFU	k	i	W	**1 pp**	l LFU	**Dte**
, 2, , I2?I2y AA-921 M	AA	A9A	2	**A5,**	5	A9A	95	2	**A87**	2	72	A	2	**7A**	, A	**97b**
AA-571 M	Ay	A24	2	**A, 8**	2	A9b	, b	2	**A88**	A	52	2	2	**52**	99	**99,**
A, -22I M	A5	A, 9	2	**A9y**	.	A?A	92	2	**AbA**	9	94	,	2	**5A**	9y	**974**
A, -A?I M	AA	A, y	2	**A9b**	y	AA4	, A	2	**A52**	2	59	2	2	**59**	, 5	**9, A**
Scau)	79	542	2	**759**	A9	794	A49	2	**87,**	5	Ay,	9	2	**Ay7**	AA?	**A9y2**
*** 1 ppHuvo**	4.b*	42., *	2*	**P**	P	b, y*	Ay.9*	2*	**P**	P	4b.9*	A y*	2*	**P**	P	P
*** Scau)**	9.4*	97.b*	2*	**94.8***	P	94.9*	b., *	2*	**5y.8***	P	A, .8*	2., *	2*	**A, .b***	P	P
l B%	2, y A4	2.4A	P	**2.4, 4**	P	2.422	2.b9A	P	**2.42b**	P	2.b, 2	2.9y7	P	**2.bA4**	P	2.457
i 0loes urF McacHavJLs	58	57y	2	**729**	P	54b	AAA	2	**824**	P	A85	9	2	**A8y**	P	A, y4
*** i 0loes urF McacHavJLs**	b8.b*	49.9*	2*	**4, .8***	P	4, .5*	4b., *	2*	**49.5***	P	47.9*	A22*	2*	**47.5***	P	49.5*
BLuRa	2	Ay	2	**Ay**	P	Ay	,	2	**A4**	P	2	2	2	**2**	P	98
*** BLuRa**	2*	9.7*	2*	**9.A***	P	9., *	Ab*	2*	**, .4***	P	2*	2*	2*	**2***	P	, .8*
w0(avJLs cr k cuF	y	A8	2	**, 9**	P	, 5	2	2	**, 5**	P	b	2	2	**b**	P	77
*** w0(avJLs cr k cuF**	A9., *	9.9*	2*	**5., ***	P	5.7*	2*	2*	**9.y***	P	5.y*	2*	2*	**5.8***	P	5.2*
l LFLseHlurs	P	P	P	P	A,	P	P	P	P	5	P	P	P	P	A24	
* l LFLseHlurs	P	P	P	P	4, .9*	P	P	P	P	A22*	P	P	P	P	45.b*	P
w0(avJLs cr CHssmu)n	P	P	P	P	A	P	P	P	P	2	P	P	P	P	8	
* w0(avJLs cr CHssmu)n	P	P	P	P	y.y*	P	P	P	P	2*	P	P	P	P	7., *	P

[1] l LFLseHlurs urF w0(avJLs cr CHssmu)n. i - i LG3k - k 0loe3S - SoH3W- WP5J Hl

5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

Sat May 7, 2022
Midday Peak (WKND) (11:30 AM - 12:30 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 941345, Location: . 46397772, -746584. 04



Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 4J9, CA

5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

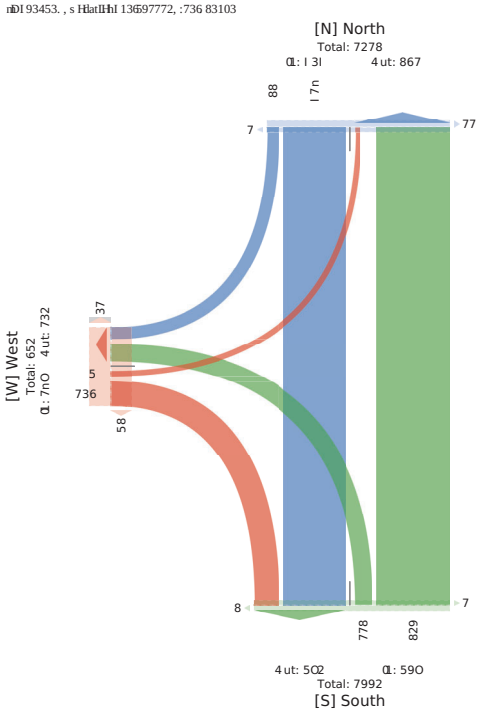
Tue Mua y3, 2, ,
0M 0Ful In g t h (I6 0M : A0M (: - 9FIuaP0Ful) Cs 1
i PPd RhooFo Ir cHveo ueER MCaCIvawPFo3) Fu9a30 FRFoeIcuBa3k cvawPFo CB mCuF3k cvawPFo CB d 1Cool ulF (
i PPMC9FD FBco
4n 78A5. Ab3r CvaeeCB76Af. 8yyy, 3:yAfbOA62A

r FH h clFveCB	t Clev TGsevN3 BR					TGsev t ClevN3 BR					n Foe EuceN3 BR					
SclDF	m	S	W	**i kK**	0FRU	S	r	W	**i kK**	0FRU	m	r	W	**i kK**	0FRU	**Dte**
, 2, , :2A 2y 67Z0M	, 2	56y	2	**5by**	2	5. y	, 5	2	**5bO**	5	66	2	2	**66**	, y	**. y8**
675A0M	, .	5. ,	2	**5AA**	5	5Ab	, O	2	**5O6**	2	. O	.	2	**65**	A2	**. O2**
67. 20M	52	5, 5	2	**5. 5**	8	5A6	. 5	2	**5Q**	.	A6	6	2	**AO**	. y	**. y5**
676A0M	5.	558	2	**5. ,**	.	5O2	, b	2	**, 2b**	.	6y	2	2	**6y**	6.	**. OA**
SCauP	bb	A68	2	**AOA**	5,	b, 6	55b	2	**y62**	y	5O	y	2	**582**	5Ay	**5A5A**
*** i kKOuw**	55f. *	OOfy*	2*	**:**	:	O6f. *	5Afy*	2*	**:**	:	8bf. *	. fy*	2*	**:**	:	:
*** SCauP**	6f8*	. 6f. *	2*	**. Ofb***	:	65f. *	yfy*	2*	**6OfO***	:	5, f5*	2fA*	2*	**5, fA***	:	:
0) %	2fbA	2f3O6	:	**2fOOy**	:	2fOb,	2f8, y	:	**2fO86**	:	2f825	2f6. O	:	**2fObA**	:	2fIO
r dHeouERM GCOuwPFo	b2	6OA	2	**A6A**	:	AyA	556	2	**bOB**	:	5y,	y	2	**5y8**	:	565,
*** r dHeouERM GCOuwPFo**	82f8*	8. f6*	2*	**8. f, ***	:	8, f5*	8OL *	2*	**8. f5***	:	86f2*	522*	2*	**86f, ***	:	8. f ***
) Fu9a	2	5,	2	**5,**	:	55	5	2	**5,**	:	5	2	2	**5**	:	. A
***) Fu9a**	2*	, f. *	2*	**, f5***	:	5IO?	2f8*	2*	**5fb***	:	2fA*	2*	2*	**2fA***	:	5fy*
k cvawPFo CB mCuR	b	, ,	2	**, O**	:	. O	5	2	**. 8**	:	52	2	2	**52**	:	yy
*** k cvawPFo CB mCuR**	8f5*	6f. *	2*	**6fO?**	:	bf5*	2f8*	2*	**Af. ***	:	AfA*	2*	2*	**Af. ***	:	Af5*
0 FRFoeIcuBo	:	:	:	:	55	:	:	:	:	y	:	:	:	:	56,	
* 0 FRFoeIcuBo	:	:	:	:	85fy*	:	:	:	:	522*	:	:	:	:	85f5*	:
k cvawPFo CB d 1Cool ulF	:	:	:	:	5	:	:	:	:	2	:	:	:	:	56	
* k cvawPFo CB d 1Cool ulF	:	:	:	:	OL *	:	:	:	:	2*	:	:	:	:	OB*	:

[1] 0 FRFoeIcuBo uERk cvawPFo CB d 1Cool ulF f r 7r Fpe3m7mcHve3S 7Sv Is 3W7W. S s 1B

5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

Sat May 7, 2022
PM Peak (WKND) (1 PM : 3 PM) : - Oevarr Peak l Hbv
u rr ArarCtCC(s li gtCahn MHHkdydreC, l eaOy, PeneCdvlahC, c IdydreCHh BHnn, c IdydreCHh AvHCCRark)
u rr MHOewehtC
nD! 93453. , s HtatIHnI 136597772, :736 83103



Ottawa
PHCOanen byI Alty Hf - ttaRa
400 AHhCterratIHh Dv,
Nepeah, - N, K2G 3J9, Au

5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC

Tue Mua y3, 2, ,
0FIl Lngt ch (62: A2 - M9l: A2 PM)
- Il Clussns (Lit hes ugd Moeorcaclns3Hnuva3Pndnsoriugs3Bicaclns og Roud3Bicaclns og Crosswulk)
- Il Movnmnges
ID: 476A743Locuciog: 875A4482A39y75L. 16y

Ottawa
Providnd ba: Cian of Oauuvu
622 Cogsanlluaiog Dr3
Nnpnug3ON3K, G 7J43C-

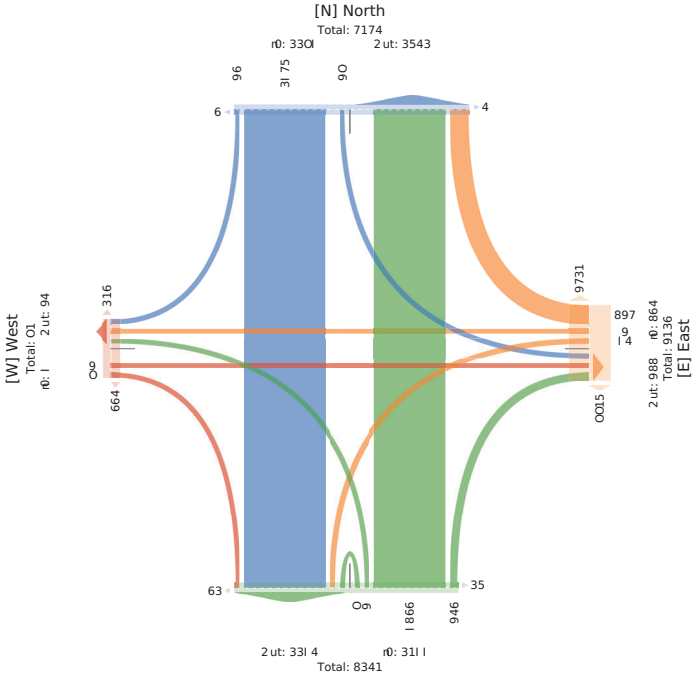
Lnt Dirncsiog	Norh ToFehboFgd						Ease S nsebuFgd						ToFeh NorehboFgd						S nse EuseboFgd						
Wlnn	R	W	L	U	- pp	Pnd*	R	W	L	U	- pp	Pnd*	R	W	L	U	- pp	Pnd*	R	W	L	U	- pp	Pnd*	lge
. 2, , 9279Ey 62:22- M	6	, 71	2	2	, 7y	6	AA	2	6	2	A8	47	.	, A	2	2	2	82	1	2	2	2	2	81	7A6
66:22- M	,	7, 6	,	2	7, 7	A	1,	2	,	2	18	, y7	68	72y	2	2	7, 6	62		2	2	2	2	, A	6662
6, :22PM	,	7Ay	6	2	782	2	46	2	y	2	4.	87A	, ,	812	2	2	8. ,	67	2	2	2	2	2	627	66, 2
6:22PM	,	76.	2	2	7, 2	6	48	2	8	2	4.	847	6A	8, y	2	2	882	68		2	6	2	2	6	41	6274
, :22PM	6	74,	6	2	748	2	47	2	8	2	44	76A	6,	728	2	2	761	6y	2	2	2	2	2	6AA	6, 24
A:22PM	8	741	6	2	126	2	667	2	8	2	664	1, .	A	8. y	2	,	7, 6	.		6	2	2	2	6	68y	6, 8,
8:22PM	,	7y8	2	2	7y1	A	6A6	6	6,	2	688	18,	AA	761	6	2	772	61	2	2	2	2	2	68,	6, y2
7:22PM	6	7Ay	6	2	7A1	A	6, 2	2	,	2	6, ,	y8.	, A	847	2	2	76.	.		2	2	2	2	2	67y	66y4
1:22PM	2	, 17	1	2	, y6	6	y.	2	6	2	y4	, 4y	6.	, , y	2	2	2	, 87	1	6	2	2	2	6	7A	741
Wnnl	67	8A41	6,	2	**88, A**	6,	. 64	6	Ay	2	**.7y**	8681	6y7	A 77	6	,	**82AA**	622		,	6	2	2	**A**	41,	**4761**
% - pprouch	25%	443%	25%	2%	**9**	9	4731%	25%	85%	2%	**9**	9	85%	4731%	2%	2%	**9**	9	115%	A6%	2%	2%	2%	**9**	9	9
% Wnnl	25 %	8y5 %	25%	2%	**8y57%**	9	. 5 %	2%	25%	2%	**45 %**	9	65%	863%	2%	2%	**8A5%**	9	2%	2%	2%	2%	**2%**	9	9
Lit hes ugd Moeorcaclns	62	867.	7	2	**86yA**	9	yy2	2	Al	2	**. 21**	9	616	Al22	6	,	**Ay18**	9	,	2	2	2	,	9	. y87
% Lit hes ugd Moeorcaclns	115%	483%	865%	2%	**485%**	9	4852%	2%	4y5%	2%	**485%**	9	4, 5%	4A8%	622%	622%	**4A5%**	9	622%	2%	2%	2%	**115%**	9	4A6%
Hnuva	2	621	,	2	**62.**	9	1	2	2	2	**1**	9	6	622	2	2	**626**	9	2	2	2	2	**2**	9	, 67
% Hnuva	2%	, 8%	615%	2%	**, 8%**	9	25%	2%	2%	2%	**25%**	9	25%	, 5%	2%	2%	**, 57%**	9	2%	2%	2%	2%	**2%**	9	, 5%
Bicaclns og Roud	7	6A,	7	2	**68,**	9	8A	6	6	2	**87**	9	6A	677	2	2	**61.**	9	2	6	2	2	**6**	9	A71
% Bicaclns og Roud	A6%	A2%	865%	2%	**A5 %**	9	75%	622%	, 5%	2%	**75%**	9	y8%	852%	2%	2%	**85 %**	9	2%	622%	2%	2%	**A6%**	9	A5 %
Pndnsoriugs	9	9	9	9	9	66	9	9	9	9	9	8627	9	9	9	9	9	622	9	9	9	9	9	4A,	
% Pndnsoriugs	9	9	9	9	9	465%	9	9	9	9	9	4452%	9	9	9	9	9	622%	9	9	9	9	9	4y5%	9
Bicaclns og Crosswulk	9	9	9	9	9	6	9	9	9	9	9	86	9	9	9	9	9	2	9	9	9	9	9	, 8	
% Bicaclns og Crosswulk	9	9	9	9	9	. 5%	9	9	9	9	9	62%	9	9	9	9	9	2%	9	9	9	9	9	, 5%	9

*Pndnsoriugs ugd Bicaclns og Crosswulk5L: Lnfe3R: Rit he3W WinF3U: U9WFrg

5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC

Sat May 7, 2022
Full Length (10:30 AM-6:30 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 941349, Location: 54.399503, -74.68617

Ottawa
Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 4J9, CA



5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC

Tue Mua y3, 2, ,
MOFFua l Lun gt h (6 : gAA92 1 M PA -92 l M:
1)) C)ussLs gi (tloes ur F Mcoc:Hav)Ls3BLuRa3l LFLsedHurs3w0(av)Ls cr k cuF3w0(av)Ls cr CHssmu)n:
1)) McRLl Lres
IBs - 47A9743i cvuedcr - 875A4482939y75 b. Ay

Ottawa
l heRCFLF fa - COin cONeumu
A22 Ccr seL.))uedcr 6 H3
(LpLur 3N(3h , K 7G43C1

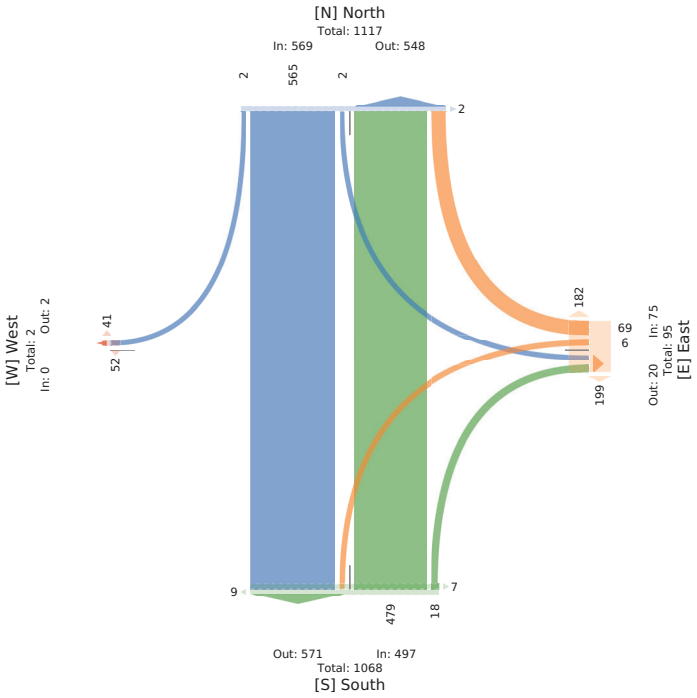
i Id 6 OHvedcr SOI L	(chio TcEeof cEr F						J use t Lsef cEr F						Tc Eeo (chlof cEr F						t Lse J use f cEr F						
	k	S	i	W	**1 pp**	l LFU	k	S	i	W	**1 pp**	l LFU	k	S	i	W	**1 pp**	l LFU	k	S	i	W	**1 pp**	l LFU	**Dle**
. 2, , I27Ey AA921 M	A	A84	,	2	**A7,**	,	A8	2	2	2	**A8**	yb	9	A99	2	2	**A9.**	,	2	2	2	2	**2**	92	**92,**
AA871 M	2	A, b	2	2	**A, b**	2	A8	2	A	2	**A7**	y4	9	A, 8	2	2	**A, y**	7	2	2	2	2	**2**	Ab	**, y2**
A -221 M	2	A82	2	2	**A82**	2	, 7	2	,	2	**, y**	47	A2	AA7	2	2	**A, 7**	9	2	2	2	2	**2**	9A	**, 4,**
A -A71 M	A	A8b	2	2	**A84**	2	A	2	9	2	**A4**	A 4	,	A2y	2	2	**A24**	.	2	2	2	2	**2**	A8	**, yy**
Scau)	,	7, 7	,	2	**7, 4**	,	. 4	2	,	2	**y7**	9bA	Ab	8y4	2	2	**84y**	A	2	2	2	2	**2**	49	**A8BA**
*** 1 ppHuvo**	2Bi*	443i*	2Bi*	2*	**P**	P	4, 5i*	2*	b5i*	2*	**P**	P	95 *	4. 9i*	2*	2*	**P**	P	P2*	2*	2*	2*	**P**	P	P
*** Scau)**	25 *	845i*	25 *	2*	**845i***	P	. 5i*	2*	25i*	2*	**. 5 ***	P	A5 *	8, 5i*	2*	2*	**895 ***	P	2*	2*	2*	2*	**2***	P	P
1 B%	25i22	2i90b	25 72	P	**25i, .**	P	25y2b	P25i22	P	**25yA**	P	25i72	P2Bi72	25i97	P	P	**25i84**	P	P	P	P	P	**P**	P	25i77
i 0loes ur F Mcoc:Hav)Ls	,	79,	2	2	**798**	P	. b	2	,	2	**y8**	P	Ab	88y	2	2	**8. 7**	P	2	2	2	2	**2**	P	A2y9
*** i 0loes ur F Mcoc:Hav)Ls**	A22*	485 *	2*	2*	**495b***	P	4b5 *	2*	A22*	2*	**4b5y***	P	A22*	495i*	2*	2*	**495 ***	P	2*	2*	2*	2*	**P**	P	485i*
BLuiRa	2	A,	,	2	**Ab**	P	2	2	2	2	**2**	P	2	Ay	2	2	**Ay**	P	2	2	2	2	**2**	P	97
*** BLuiRa**	2*	, 5i*	A22*	2*	**95 ***	P	2*	2*	2*	2*	**2***	P	2*	95i*	2*	2*	**95i***	P	2*	2*	2*	2*	**P**	P	95i*
w0(av)Ls cr k cuF	2	Ay	2	2	**Ay**	P	A	2	2	2	**A**	P	2	A7	2	2	**A7**	P	2	2	2	2	**2**	P	99
*** w0(av)Ls cr k cuF**	2*	95i*	2*	2*	**95i***	P	A8*	2*	2*	2*	**A9***	P	2*	95i*	2*	2*	**95i***	P	2*	2*	2*	2*	**P**	P	, 5i*
l LFLsedHurs	P	P	P	P	P	,	P	P	P	P	P	9y2	P	P	P	P	P	A,	P	P	P	P	P	4A	
* l LFLsedHurs	P	P	P	P	P	A22*	P	P	P	P	P	4y5i*	P	P	P	P	P	A22*	P	P	P	P	P	4y3i*	P
w0(av)Ls cr Chtssmu)n	P	P	P	P	P	2	P	P	P	P	P	AA	P	P	P	P	P	2	P	P	P	P	P	,	
* w0(av)Ls cr Chtssmu)n	P	P	P	P	P	2*	P	P	P	P	P	, 5i*	P	P	P	P	P	2*	P	P	P	P	P	, 5 *	P

[1] l LFLsedHurs ur F w0(av)Ls cr Chtssmu)n5i - i L03k - k 0loe3S - SoH3W- WiS EHf

5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC

Sat May 7, 2022
Midday Peak (WKND) (11:30 AM - 12:30 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 941349, Location: 54.399503, -74.68617

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 4J9, CA



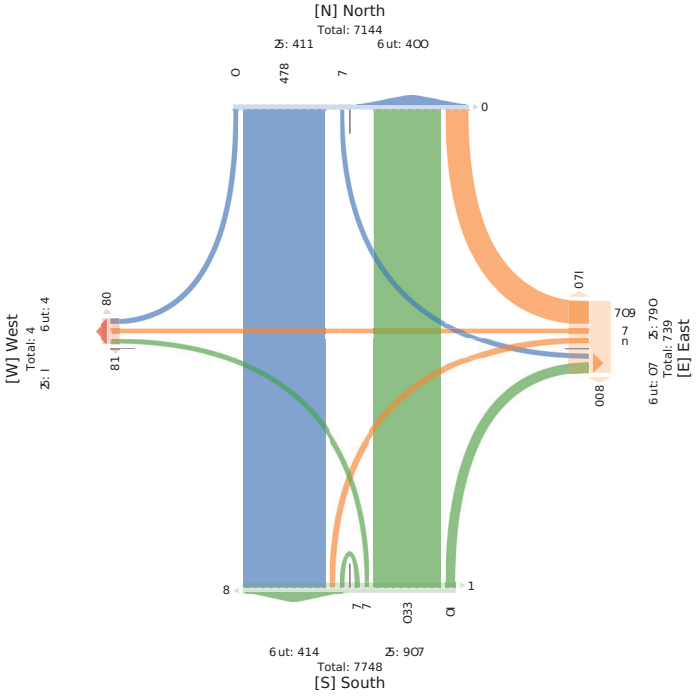
5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC

Provided by: City of Ottawa

5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC

Sat May 7, 2022
PM Peak (WKND) (1:10 PM 3 - :10 PM) 3Overall Peak Hour
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 945149, Location: - 4.199 - 01, 374.68657

Provided by: City of Ottawa
500 Constellation Dr,
Nepean, ON, K2G 4J9, CA



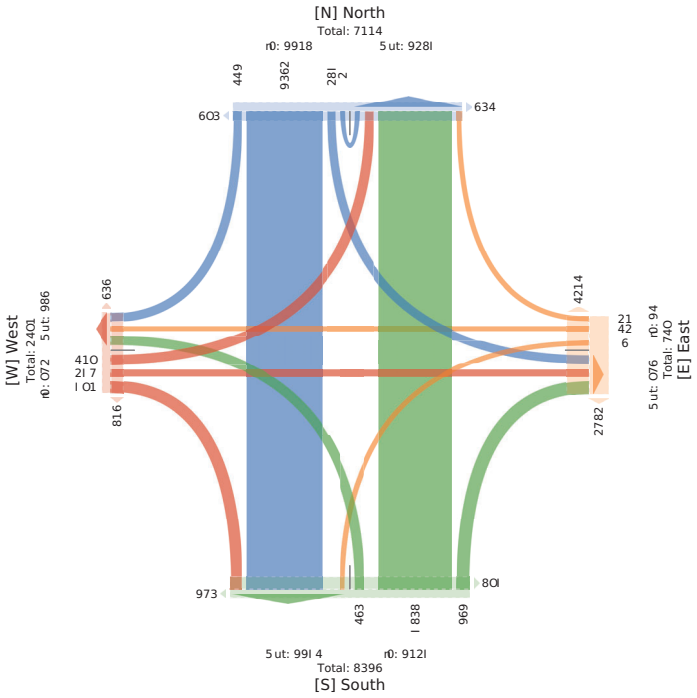
5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

Provided by: City of Ottawa
622 Cogsmillstrog Dr3

5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

Sat May 7, 2022
Full Length (10:30 AM-6:30 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 941363, Location: 54.399896, -74.686463

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 4J9, CA



5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

Tue Mua y 3, 2, ,
M0FFua l Iun g t h (6 : gAA-92 1 M PA -92 l M:
1)) C)ussLs gj (tloes ur F Mcec:Hiav)Ls3BLuRa3l LFLsedflur s3w0(av)Ls cr k cuF3w0(av)Ls cr C.Hssmu)n:
1)) McRLI Lr es
Ib - 47A9893i cvu0Lr - 57.944b483Dy7.8b8789

l HRRFLF f a - C0n cCNeumu
A22 Ccr sed.))uc0Lr 6 I3
(LpLur 3N(3h , K 7G3C1

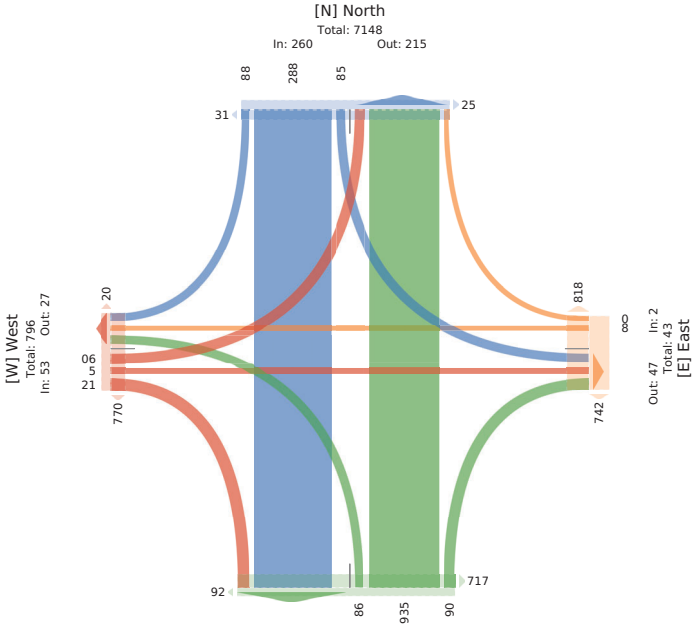
i Id 6 0Ltxs0Lr	(cHo Tc Eno f cEr F						J use t Isef cEr F						Tc Eno (cHo f cEr F						t Ise J use f cEr F						
S0I L	k	S	i	W	1 pp	I LFU	k	S	i	W	1 pp	I LFU	k	S	i	W	1 pp	I LFU	k	S	i	W	1 pp	I LFU	Dte
. 2, , I27Ey AA921 M	5	A9b	b	2	A72	. 7	A	2	2	2	A	84	A	A 2	b	2	A52	. 4	A5	7	AA	2	92	7A	9, A
AA571 M	5	A b	4	2	A5A	. 5	2	2	2	2	2	A29	y	AA7	b	2	A82	9b	b	2	4	2	Ay	97	, bb
A -22I M	4	AAb	.	2	A 4	55	2	2	2	2	2	AA8	A7	A 7	8	2	A58	95	A	5	4	2	, 7	5y	922
A -A7I M	7	A0b	A2	2	A79	, 8	,	,	2	2	5	44	4	A24	7	2	A, 9	57	A8	2	b	2	, 5	99	925
Scu)	, ,	7, ,	, 4	2	7y9	AA4	9	,	2	2	7	9by	59	584	, y	2	794	A68	72	4	9y	2	48	A88	A, A9
* 1 ppHuvo	9.b*	4A.A*	7.A*	2*	P	P	82.2*	52.2*	2*	2*	P	P	b.2*	by.2*	7.2*	2*	P	P	7, .A*	4.5*	9b.7*	2*	P	P	P
* Scu)	Ab*	59.2*	, .5*	2*	5y. , *	P	2. , *	2. , *	2*	2*	2.5*	P	9.7*	9b.y*	, . , *	2*	55.5*	P	5.A*	2.y*	9.A*	2*	y.4*	P	P
I B%	2.8AA	2.459	2.y, 7	P	2.495	P	P	P	P	P	P	P	2.y Ay	2.492	2.b55	P	2.4A8	P	2.b75	2.572	2.bAo	P	2,y8b	P	2.474
i tiloes ur F Mcec:Hiav)Ls	, ,	54b	, b	2	75b	P	2	2	2	2	2	P	5,	59y	, y	2	728	P	94	4	98	2	b5	P	A9bb
* i tiloes ur F Mcec:Hiav)Ls	A22*	47.5*	48.8*	2*	47.8*	P	2*	2*	2*	2*	2*	P	4y.y*	49. , *	A22*	2*	49.4*	P	yb.2*	A22*	4y.9*	2*	by.7*	P	49.b*
B Lu Ra	2	A7	A	2	A8	P	2	2	2	2	2	P	A	Ay	2	2	Ab	P	,	2	2	2	,	P	98
* B Lu Ra	2*	, .4*	9.5*	2*	, .b*	P	2*	2*	2*	2*	2*	P	, 9*	9.8*	2*	2*	9.9*	P	5.2*	2*	2*	2*	, .A*	P	9.2*
w0(av)Ls cr k cuF	2	4	2	2	4	P	9	,	2	2	7	P	2	A7	2	2	A7	P	4	2	A	2	A2	P	94
* w0(av)Ls cr k cuF	2*	Ay*	2*	2*	A8*	P	A22*	A22*	2*	2*	A22*	P	2*	9. , *	2*	2*	, .b*	P	Ab.2*	2*	. ,y*	2*	A2.5*	P	9. , *
l LFLsedflur s	P	P	P	P	P	AA5	P	P	P	P	P	9y4	P	P	P	P	P	A0y	P	P	P	P	P	A8A	
* l LFLsedflur s	P	P	P	P	P	47.b*	P	P	P	P	P	4y.4*	P	P	P	P	P	49.b*	P	P	P	P	P	4y.2*	P
w0(av)Ls cr C.Hssmu)n	P	P	P	P	P	7	P	P	P	P	P	b	P	P	P	P	P	4	P	P	P	P	P	7	
* w0(av)Ls cr C.Hssmu)n	P	P	P	P	P	5, *	P	P	P	P	P	, .A*	P	P	P	P	P	8. , *	P	P	P	P	P	9.2*	P

[1] I LFLsedflur s ur F w0(av)Ls cr C.Hssmu)n. i - i LQ3k - k 0Iloe3S - SoHE3W- WBSEHf

5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

Sat May 7, 2022
Midday Peak (WKND) (11:30 AM - 12:30 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 941353, Location: . 46399895, -746585453

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 4J9, CA



5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

Tue Mua y 3, 2, ,
0M 0Ful In g t h (I6:A- 0M 9:AA- 0M(9 1 PF)uCC0Ful s i d)
o (Cr GccFc IHHBRac uwk Mi ei)nanEFc3s FuPa30FkFce)vuwc3I vnanEFc i wDi uk3I vnanEFc i w
r)i cc4 uCL(
o (CMi PF7 Fwac
fh : 5- . 6b63Hi nuei w A- f6555Cb39y- fbCb- b6

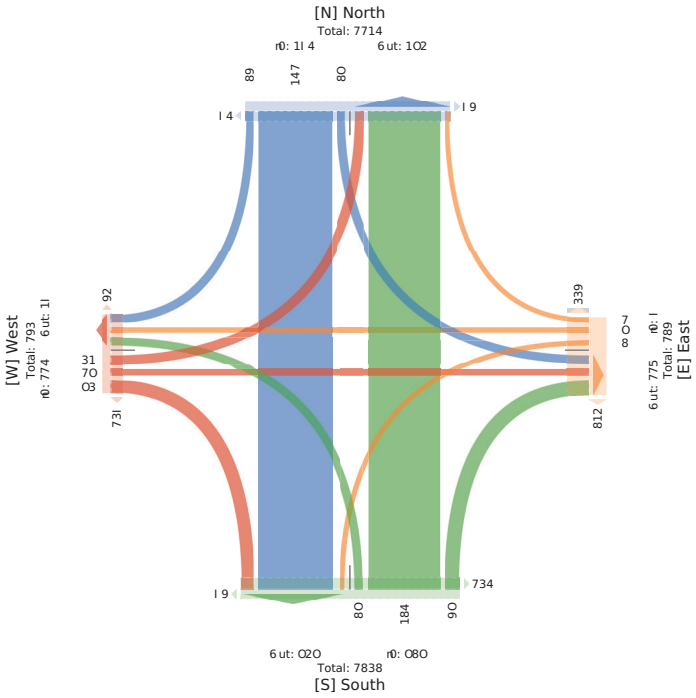
0)i PkFk Nk: r va i p1 cu4 u
. 22 r i wceFGUeM wh)3
t FKFuw31 t 3g , G - J53r o

HFB h yEnei w	t i)dR Ti dcRN dvk						Eucc n FcrN dvk						Ti dcR t i)dRN dvk						n Fce EucrN dvk						
Sv7 F	D	S	H	W	o KK	0FkU	D	S	H	W	o KK	0FkU	D	S	H	W	o KK	0FkU	D	S	H	W	o KK	0FkU	Bue
, 2, , 52- 52y 6:A- 0M	y	.6-	.2	2	.-,	b6	.	2	.	2	,	, y6	, 2	. 6A	O	2	. b,	-.	. 5	y	A	2	62	A6	6Ab
A220M	-	.-.	6	2	.-5	. O	2	A	2	2	A	. A	. O	. , 6	y	2	. AO	b.	. O	,	5	2	, 5	- 6	6A2
A: . - 0M	b	. 6A	b	2	. Ab	A6	2	,	2	2	,	. . O	, 6	. 6y	O	2	. bO	b-	. -	6	. 6	2	6.	- -	6Ay
A:620M	5	, , .	y	2	. 6y	- y	2	2	.	2	.	. - -	. -	. 62	6	2	. AO	- A	. .	A	5	2	, A	-,	6. 2
Si nuC	, y	- A	, b	2	- 5A	. 5,	.	b	,	2	5	- Oy	yb	-, A	, b	2	b, b	, 6.	b6	. b	6-	2	. . A	, 25	. 6A6
* o hKQi unR	AE-*	5. £ *	AEA*	2*	9	9	. £ *	bb6y*	, , £ *	2*	9	9	, £ *	O6b6y*	AE, *	2*	9	9	- -I6*	. AI2*	626y*	2*	9	9	9
* Si nuC	. I2*	A2I6*	. I5*	2*	AAE, *	9	2I. *	2IA*	2I. *	2*	2fy*	9	- fy*	65I2*	. I5*	2*	Abb*	9	Ay*	. I, *	, Ib*	2*	OE*	9	9
0s %	2fy- 2	2IOEy	2Ib-	2	9 2f56b	9	9	9	2I, - 2	9	2f, - 2	9	2f526	2I5- ,	2IO y	9	2f5A	9	2IOvO	2Ib, -	2Iby6	9	2IOO5	9	2f5by
HuERac uwk Mi ei)nanEFc	, y	- . -	, b	2	- bO	9	2	2	.	2	.	9	b-	A52	, A	2	- y5	9	-5	. 2	6-	2	. 2A	9	. , - ,
* HuERac uwk Mi ei)nanEFc	. 22*	5- £, *	. 22*	2*	5- fb*	9	2*	2*	-2I2*	2*	. . £ *	9	O f- *	566- *	5, f6*	2*	5, £ *	9	566y*	b, f- *	. 22*	2*	5. £, *	9	56E, *
s FuPa	2	. b	2	2	. b	9	2	2	2	2	2	9	2	. ,	2	2	. ,	9	2	. ,	2	2	2	9	, O
* s FuPa	2*	6I2*	2*	2*	, fy*	9	2*	2*	2*	2*	2*	9	2*	, I6*	2*	2*	. I5*	9	2*	2*	2*	2*	2*	9	, £ *
I vnanEFc i w Di uk	2	. 2	2	2	. 2	9	.	b	.	2	O	9	-	.	.	2	6-	9	A	b	2	2	. 2	9	b6
* I vnanEFc i w Di uk	2*	I0*	2*	2*	. fy*	9	22*	. 22*	-2I2*	2*	CDE*	9	A£ *	AL *	yfy*	2*	- fb*	9	bI6*	6yf- *	2*	2*	CIO*	9	Ay*
0FkFce)vuwc	9	9	9	9	9	. OE	9	9	9	9	9	- OA	9	9	9	9	9	, , y	9	9	9	9	9	, 2b	
* 0FkFce)vuwc	9	9	9	9	95	AL *	9	9	9	9	955	6 *	9	9	9	9	9	95	C6*	9	9	9	9	95	9
I vnanEFc i w)i cc4 uCL	9	9	9	9	9	. .	9	9	9	9	9	6	9	9	9	9	9	. A	9	9	9	9	9	6	
* I vnanEFc i w)i cc4 uCL	9	9	9	9	9	- IO*	9	9	9	9	9	2E-*	9	9	9	9	9	. fy*	9	9	9	9	9	. IA*	9

[1] 0FkFce)vuwc uwk I vnanEFc i wr)i cc4 uCL f H: HEpe3D: DxBRe3S: SR)d3W: W6Sd)w

5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

Sat May 7, 2022
PM Peak (WKND) (1:3- PM 03:3- PM) Ov r elaHPeak o uA
CHHs ldILeL(i ghntLadc MutulBy Hd, o ear y, PeceItlgdL, RgBy Hd Lud wuac, RgBy Hd Lud s luLlmaRk)
CHHMur el edtL
9D: 4- 51. 1, i uEatgud: 3- 614484. , 07- 6 8. -. 1



Plur g:ec by: s gy uf v ttama
500 s udIteHHtgud Dl,
Nepead, v N, K2G - J4, s C

5566814 - COVID - QUEEN ELIZABETH DRWY @ FIF... - TMC

Tue Mua y3, 2, ,
0Fll Lngt eh (62:A2 - M9l:A2 PM)
- Il Clussns (Lit hes ugd Mooorcaclns3Hnuva3Pndnseriugs3Bicaclns og Roud3Bicaclns og Crosswulk)
- Il Movnmnges
ID: 476A1y3Locuuiog: 873l2A4, 639y75l. 64y8

Providnd ba: Cita of Ootuwu
622 Cogsenlluiog Dr3
Nnpnug3ON3K, G 7J43C-

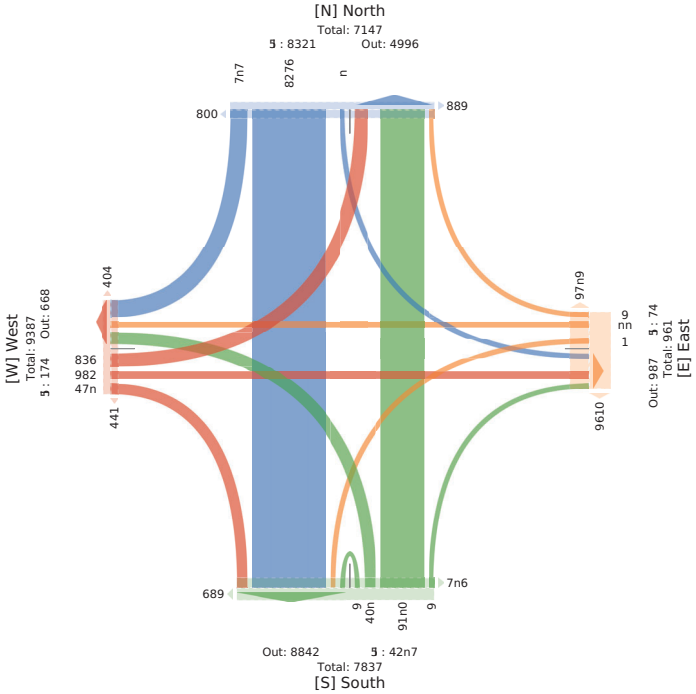
Lnt Dimcniog	North ToFehboFgd					Euse S nsehoFgd					ToFeh NoreboFgd					S nse EusehoFgd					
Wmn	R	W	L	U	- pp	Pnd*	R	W	L	U	- pp	Pnd*	R	W	L	U	- pp	Pnd*	R	W	L	U	- pp	Pnd*	lge
, 2, , 92792y 62:22- M	, 2	6, 1	2	2	681	A7	2	2	6	2	6	68y	2	y6	, 2	2	46	82	62	8	6A	2	, y	6y	, 17
66:22- M	1A	A28	2	2	Aly	, 7	2	6	6	2	,	888	2	671	, 1	6	6. A	66,	61	62	86	2	1y	8A	164
6, :22PM	78	A11	6	2	8, 6	y.	2	67	6	2	61	824	2	648	A6	2	, , 7	6A8	, .	66	77	2	48	A	y71
6:22PM	78	A 2	6	2	Ay7	, 6	2	67	2	2	67	Ay6	2	, 8A	A	2	, . 6	67A	, 4	, 6	84	2	44	1,	yy2
, :22PM	y2	A 4	6	2	812	662	2	2	6	2	6	844	6	, , 2	A6	2	, 7,	, 2A	Al	66	A4	2	, 1	y1	y44
A:22PM	14	8A6	2	2	722	6, 1	2	2	2	2	2	844	2	, 7,	78	2	A21	, 8.	Al	, 7	8y	2	62.	624	468
8:22PM	, y	824	6	2	84y	4,	6	,	A	2	1	88,	2	, 7.	AA	2	, 46	6y6	86	, 2	78	2	667	1.	424
7:22PM	, 1	816	2	2	78y	, A	2	7	2	2	7	876	2	, , 1	88	2	, y2	, 8y	8.	, 7	8A	2	661	yy	4A,
1:22PM	8,	, 7,	2	2	, 48	A8	2	1	2	2	1	67.	2	6, 4	6y	2	681	y6	62	A	, y	2	82	A7	8. 1
Wnnl	787	A27.	8	2	**Al2y**	yA2	6	88	y	2	**7,**	A8, 2	6	6y84	, 48	6	**, 287**	6A y4	, 78	6A2	Al.	2	**y7,**	764	**1871**
% - pproach	67 8%	, 85 %	25 6%	2%	**9**	9	65 8%	, 83 1%	6A 57%	2%	**9**	9	2%	, 77 7%	68 38%	2%	**9**	9	A6 %	6y 5%	8. 5 6%	2%	**9**	9	9
% Wnnl	, 3 6%	8y 3 8%	25 6%	2%	**775 8%**	9	2%	25 9%	25 8%	2%	**25 %**	9	2% , y5 6%		83 1%	2%	**A65 %**	9	A6 8%	, 52%	75 9%	2%	**663 1%**	9	9
Lit hes ugd Mooorcaclns	7A2	, 44,	6	2	**A7, A**	9	2	2	2	2	**2**	9	2	6y27	, 4A	6	**6444**	9	, 8A	6	A78	2	**74.**	9	16, 2
% Lit hes ugd Mooorcaclns	4y5 %	4y5 %	, 72%	2%	**4y5 %**	9	2%	2%	2%	2%	**2%**	9	2%	4y5 7%	44 5%	622%	**4y5 %**	9	47 5%	, 25 %	41 5 %	2%	**y45 7%**	9	485 %
Hnuva	8	66	2	2	**67**	9	2	6	2	2	**6**	9	2	,	6	2	**4**	9	,	6	8	2	**y**	9	A
% Hnuva	25 %	25 8%	2%	2%	**25 8%**	9	2%	, 5 6%	2%	2%	**65 4%**	9	2%	25 7%	25 8%	2%	**25 8%**	9	25 %	25 %	63 6%	2%	**25 8%**	9	25 7%
Bicaclns og Roud	66	77	A	2	**14**	9	6	8A	y	2	**76**	9	6	Al	2	2	**Ay**	9	4	6, .	62	2	**68y**	9	A28
% Bicaclns og Roud	, 52%	65 %	y7 2%	2%	**65 8%**	9	622%	4y 5%	622%	2%	**4. 56%**	9	622%	, 56%	2%	2%	**65 %**	9	A5 7%	4. 5 7%	, 5%	2%	**645 7%**	9	85 7%
Pndnseriugs	9	9	9	9	9	7y4	9	9	9	9	9	6y8,	9	9	9	9	9	66y2	9	9	9	9	9	8yA	
% Pndnseriugs	9	9	9	9	9 y45	6%	9	9	9	9	9 72	58%	9	9	9	9	9. 85	%	9	9	9	9	946	36%	9
Bicaclns og Crosswulk	9	9	9	9	9	676	9	9	9	9	9	61y,	9	9	9	9	9	, 24	9	9	9	9	9	81	
% Bicaclns og Crosswulk	9	9	9	9	9, 25	%	9	9	9	9	984	36%	9	9	9	9	967	5 %	9	9	9	9	9 .	58%	9

*Pndnseriugs ugd Bicaclns og Crosswulk5L: Lnfe8R: Rit he3W WhrF3U: U9WFrg

5566814 - COVID - QUEEN ELIZABETH DRWY @ FIF... - TMC

Sat May 7, 2022
Full Length (10:30 AM-6:30 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 941367, Location: 54.503921, -74.681975

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 4J9, CA



5566814 - COVID - QUEEN ELIZABETH DRWY @ FIF... - TMC

Tue Mua y3, 2, ,
MOEFua l lun g h (6 : gA, -91 l M PA:91 l M:
) CCs Cüii iLi gt0brei ucF MHHHBBtLi 3RLuwa3l LFLie0uci 3k0BBtLi Ht: mHuF3k0BBtLi Ht: s vHi l uC0:
) CCMHkLD Lcei
46 - 71A85y3d HEuoDHt: - 91.9287, A3Py1.5bA7y9

Ottawa
l vHwDFLF fa-s 0n HONeuul u
A22 s Hci eLCCoDHt: 6 v3
(IpLuc3N(3h , K 1G73s)

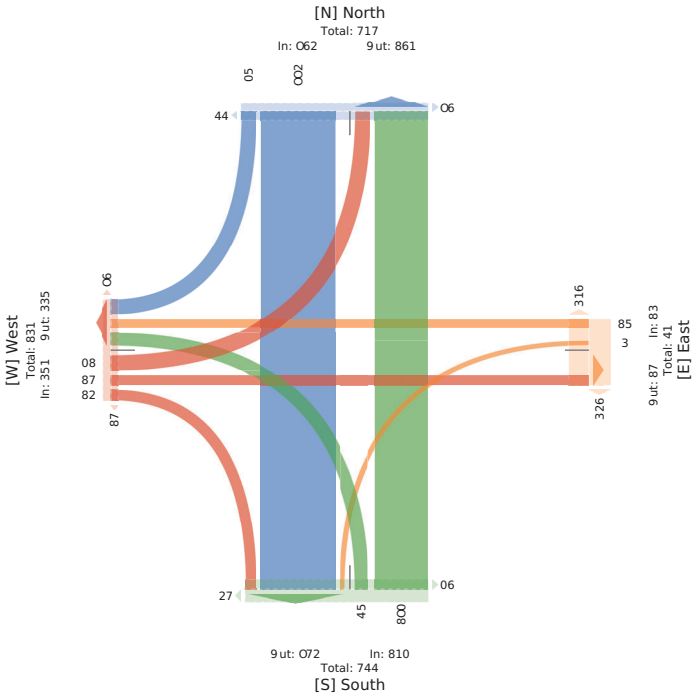
dLo 6 0LIbDHt:	(Her THEer f HEcF					J uie t Li ef HEcF					THEer (Her f HEcF					t Lie J uief HEcF					
StDL	m	S	d	W	) pp	l LFU	m	S	d	W	) pp	l LFU	m	S	d	W	) pp	l LFU	m	S	d	W	) pp	l LFU	Ace
, 2, , l2 12y A -91 l M	b	A22	2	2	A2b	Ay	2	7	A	2	A2	78	2	19	A2	2	59	8,	b	y	A6	2	8A	b	, A8
A:22 l M	A8	y1	2	2	bb	7	2	9	2	2	9	A28	2	59	5	2	y2	82	y	5	Al	2	, b	7	A72
A-Al l M	Al	y7	2	2	79	, 8	2	,	2	2	,	72	2	5A	A	2	y8	, 5	y	,	y	2	A6	Ab	Ab1
A:82 l M	A9	b1	2	2	77	88	2	1	2	2	1	72	2	15	A	2	5b	55	y	AA	A9	2	8,	, 7	, 29
SHuC	12	887	2	2	**8b7**	b,	2	, 2	A	2	**, A**	8y5	2	, 81	92	2	**, y1**	Al9	, 7	, 5	1,	2	**A2y**	59	**y7,**
***) ppvHuB**	A , 7*	by. A*	2*	2*	**P**	P	2*	71., *	9.b*	2*	**P**	P	2*	b1.1*	A0.1*	2*	**P**	P	, y. A*	, 9.8*	9b.5*	2*	**P**	P	P
*** SHuC**	5.8*	9, .b*	2*	2*	**97.A***	P	2*	, .1*	2.A*	2*	**. y***	P	2*	, 7.y*	1.A*	2*	**89.y***	P	8.y*	8.8*	5.5*	2*	**A8.1***	P	P
l R%	2.bAy	2.b9,	P	P	**2.b79**	P	P	P	P	P	**P**	P	P	2.7, 1	2.b88	P	**2.79b**	P	2.725	2.122	2.bA8	P	**2.b82**	P	2.79,
d0brei ucF MHHHBBtLi	9y	8, 7	2	2	**8y5**	P	2	2	2	2	**2**	P	2	, 8,	92	2	**, y,**	P	, 7	A	1,	2	**b,**	P	y82
*** d0brei ucF MHHHBBtLi**	79.2*	7y.A*	2*	2*	**75.y***	P	2*	2*	2*	2*	**2***	P	2*	7b.y*	A22*	2*	**7b.7***	P	A22*	8.b*	A22*	2*	**y5.5***	P	7, .. *
RLuwa	,	A	2	2	**8**	P	2	2	2	2	**2**	P	2	A	2	2	**A**	P	2	A	2	2	**A**	P	1
*** RLuwa**	9.2*	2.8*	2*	2*	**2.b***	P	2*	2*	2*	2*	**2***	P	2*	2.9*	2*	2*	**2.9***	P	2*	8.b*	2*	2*	**2.7***	P	2.5*
k0BBtLi Ht: mHuF	A	7	2	2	**A2**	P	2	, 2	A	2	**, A**	P	2	,	2	2	**,**	P	2	, 9	2	2	**, 9**	P	1y
*** k0BBtLi Ht: mHuF**	, .2*	. , y*	2*	2*	**, 5***	P	2*	A22*	A22*	2*	**A22***	P	2*	2.7*	2*	2*	**2.y***	P	2*	7, .8*	2*	2*	**, , .9***	P	y, . *
l LFLie0uci	P	P	P	P	P	yA	P	P	P	P	P	A0,	P	P	P	P	P	A0A	P	P	P	P	P	5,	
* l LFLie0uci	P	P	P	P	P	b5.5*	P	P	P	P	P	9b.9*	P	P	P	P	P	7A5*	P	P	P	P	P	75.7*	P
k0BBtLi Ht: s vHi l u6i	P	P	P	P	P	AA	P	P	P	P	P	A79	P	P	P	P	P	A8	P	P	P	P	P	,	
* k0BBtLi Ht: s vHi l u6i	P	P	P	P	P	A8.9*	P	P	P	P	P	1A5*	P	P	P	P	P	b.9*	P	P	P	P	P	8.A*	

[1] l LFLie0uci ucF k0BBtLi Ht: s vHi l u6i. d - d L0 83m- m0brei S - S r vE3W- WBS Exc

5566814 - COVID - QUEEN ELIZABETH DRWY @ FIF... - TMC

Sat May 7, 2022
Midday Peak (WKND) (12:3APM - 1:3APM)
l (Cs GilLeL.(g ihntLaod Mr trch ŷ Hel, v eaEy, PedeIrciaoL, RiHŷHeLr o wr ad, RiHŷHeLr o
s cr LImaCk)
l (CMr Bel eotL
9D: 4A15. 7, g r Hatir o: 3AG805421, -7A6 81473

Pcr Bided by: s ity r f Ottama
100 s r oIteCatir o Dc,
Nepeao, ON, K2G AJ4, s l



5566814 - COVID - QUEEN ELIZABETH DRWY @ FIF... - TMC

TueMua y3, 2, ,
0M 0Ful In g t h (I6:A2 0M - 9:A2 0M(- 1 PF)uCD Ful s i d)
o (Cr GccFc IHŷBRac uwk Mi ei)nanCEc i s Fu Pa30 FkFce)wuwc3I vnanCEc i w Di uk3I vnanCEc i w
r)i cc4 uCL (
o (CMi PF7 Fwac
8h : 56. A9y3Hi nneui w b6fb2A5, . 3-y6f9O 5yb

Ottawa
0)i PukFk Na: r vn i p l eu4 u
. 22 r i wceFCCeui wh)3
t FKFuw31 t 3g , G GJ53r o

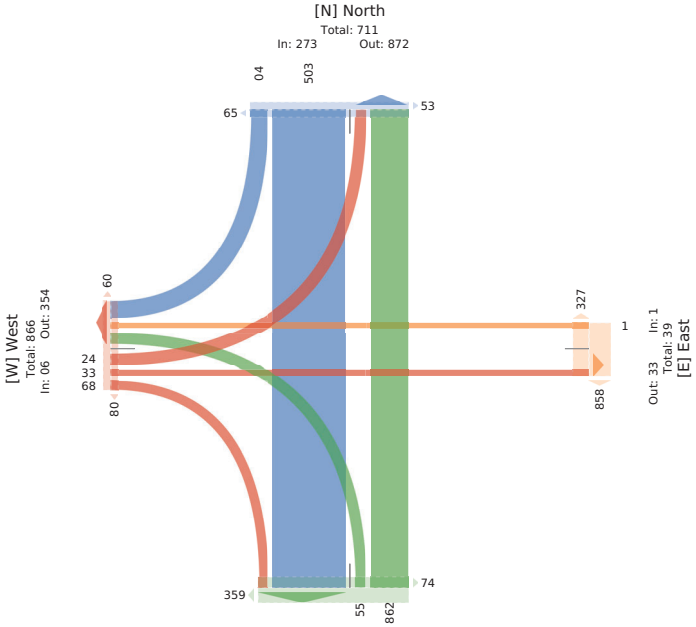
HFB h)yFnui w	t i)deR Ti deRN dwk					Euce n FceN dwk					Ti deR t i)eRN dwk					n Fce EuceN dwk				
Sv7 F	D	S	H	W	o RK 0fkU	D	S	H	W	o RK 0fkU	D	S	H	W	o RK 0fkU	D	S	H	W	o RK 0fkU
, 2, , -26-2y 6:A20M	, 6	. . b	2	2	. A5	2	2	2	2	2	2	6,	. 6	2	9y	2	6,	. b	A	5	2	, 9
6:b60M	, A	. , 6	2	2	. bO	2	2	2	2	2	2	6b	. ,	2	99	2	O	6	. b	2	2	, y
9:220M	, b	. . .	2	2	. A6	2	2	2	2	2	2	66	y	2	9,	2	A	.	. ,	2	2	. 9
9:. 60M	. O	. b.	2	2	. 65	2	9	2	2	9	2	yb	. 2	2	Ob	2	y	,	. 6	2	2	, b
Si euC	52	b5.	2	2	6O	2	9	2	2	9	2	, A6	bb	2	, y5	2	A	. .	62	2	2	5A
* o RKji unR	. 6B*	ObB*	2*	2*	-	2*	. 22*	2*	2*	-	2*	ObL *	. 6BO*	2*	-	2*	Abb*	. . BO*	6ABO*	2*	-	-
* Si euC	5b*	6. f, *	2*	2*	92B*	2*	2B*	2*	2*	2B*	2*	, bB*	bB*	2*	, 5L *	2*	AfA*	. f. *	6f, *	2*	2	5b*
0s %	2f529	2fO9A	-	-	2f52A	-	-	-	-	-	-	2fy5b	2fyAA	-	2fO92	-	2f6A9	-	2fOAA	-	2	2fOb
HvBRac uwk Mi ei)nanCEc	O6	bOy	2	2	6y,	2	2	2	2	2	2	, A6	bb	2	, y5	-	A2	2	62	2	O	5A
* HvBRac uwk Mi ei)nanCEc	5bb*	55f, *	2*	2*	5O6*	2*	2*	2*	2*	2*	2*	. 22*	. 22*	2*	. 22*	-	5AO*	2*	. 22*	2*	O2*	5yf, *
s FuPa	,	2	2	2	,	2	2	2	2	2	2	2	2	2	2	-	2	2	2	2	2	,
* s FuPa	, f, *	2*	2*	2*	2fA*	2*	2*	2*	2*	2*	2*	2*	2*	2*	2*	-	2*	2*	2*	2*	2*	2f, *
I vnanCEc i w Di uk	A	b	2	2	y	2	9	2	2	9	2	2	2	2	2	-	,	. .	2	2	. A	, 9
* I vnanCEc i w Di uk	AfA*	2BO*	2*	2*	. f, *	2*	. 22*	2*	2*	. 22*	2*	2*	2*	2*	2*	-	9fA*	. 22*	2*	2*	. bf2*	, fy*
0FkFce)wuwc	-	-	-	-	-	y2	-	-	-	-	, yA	-	-	-	-	-	, 2,	-	-	-	-	9A
* 0FkFce)wuwc	-	-	-	-	-	5AfA*	-	-	-	-	- 9ODA*	-	-	-	-	-	- CEf2*	-	-	-	-	- 5, f9*
I vnanCEc i w)i cc4 uCf	-	-	-	-	-	6	-	-	-	-	. , y	-	-	-	-	-	, 6	-	-	-	-	6
* I vnanCEc i w)i cc4 uCf	-	-	-	-	-	9fy*	-	-	-	-	- A BO*	-	-	-	-	-	- . . f2*	-	-	-	-	yfb*

[L]0 FkFce)wuwc uwk I vnanCEc i w r)i cc4 uCf Ht: HFpa3D: DvBRe3S: SRjd3W: W-Sd)w

5566814 - COVID - QUEEN ELIZABETH DRWY @ FIF... - TMC

Sat May 7, 2022
PM Peak (WKND) (1:30 PM - O:30 PM) - v r elaHŷPeak o uAl
CHŷs lalLleL.(i gntLadc MutulBy Hel, o ear y, PeceIrlgdL, RgBy Hel Lud wuac, RgBy Hel Lud
s luILmaRk)
CHŷMur el edtL
9D: 41530Ff, i uHatgud: . 16 03425, -716O8547.

Plur g ec by: s gty uf v ttama
500 s udIteHatgud Dl,
Nepead, v N, K2G 1J4, s C



5566814 - COVID - BANK ST @ SUNNYSIDE AVE - ... - TMC

TueMua y3, 2, ,
0FIl Lngt eh (62:A2 - M9I:A2 PM)
- Il Clussns (Lit hes ugd Mooorccaclns3Hnuva3Pndnserius gs3Bicaclns og Roud3Bicaclns og
Crosswulk)
- Il Movnmnges
ID: 476A143LocuuIog: 875M48, 4639y75I. A624

Providnd ba: Cian of Oeuwu
622 Cogsenlluuiog Dr3
Nnprug3ON3K, G 7J43C-

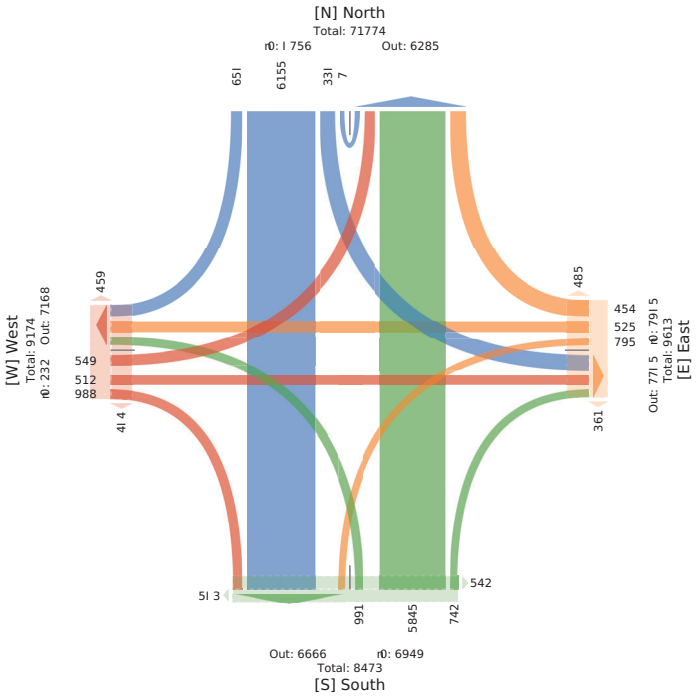
Lnt Dirncsiog	North ToFehboFgd					Euse S nwboFgd					ToFrth NorehboFgd					S use EuseboFgd					
Wmn	R	W	L	U	- pp Pnd*	R	W	L	U	- pp Pnd*	R	W	L	U	- pp Pnd*	R	W	L	U	- pp Pnd*	Ige
, 2, , 9279y 62:22- M	, 7	, 68	8A	2	, , , 9	A	61	6A	2	1y 12	66	, A6	66	2	, 7A 11	67	, 4	, 1	2	y2 y7	1y,
66:22- M	81	844	y6	2	161 9	4A	8.	, ,	2	61A 622	, 7	8. ,	, 4	2	7A1 y4	8,	8.	AA	2	6, A 616	68A
6, :22PM	72	84y	, 7	2	1A 9	44	7A	, 2	2	6y, 6, A	A2	874	, 7	2	768 . A	82	A6	8A	2	668 6. ,	68A
6:22PM	y2	846	y1	6	1A 9	62y	yA	6.	2	64. 6y.	, ,	88y	, 1	2	847 1y	88	A6	Ay	2	66, 6. 7	688A
, :22PM	7A	777	47	2	y2A 9	4,	77	.	2	677 , Al	64	8y.	A7	2	7A, 6, 7	A6	, 4	A4	2	44 , 6y	68. 4
A:22PM	84	7y1	. 4	2	y68 9	4.	76	6,	2	616 , A4	, 8	8. ,	A7	2	78y 6, y	Ay	8.	78	2	6A4 , A4	6716
8:22PM	88	7, 1	44	2	114 9	4y	86	6,	2	672 64.	, 2	76,	, 7	2	77y . .	A8	72	71	2	682 61y	6761
7:22PM	11	87y	y,	2	747 9	, 2	A4	6A	2	6A, , 62	64	7A	6.	2	7y7 y4	A2	, .	78	2	66, , 27	6868
1:22PM	A	, 6.	A7	2	, . 7 9	AA	6y	7	2	77 y4	4	, A	61	2	, 1A , 6	67	67	A2	2	12 7,	11A
Wenl	8A7	82AA	117	6	76A8 9	yAy	AtA	6, A	2	6, 7A 68, A	6y4	A yA	, , 2	2	8, y, yA7	, , .	A24	Ay,	2	414 68. 4	661, ,
% - pproach	. 5%	y. 1%	6A2%	2%	9 9	7. 5 %	A68%	45 %	2%	9 9	85 %	425%	76%	2%	9 9	, 45%	A65%	A 8%	2%	9 9	9
% Wenl	A5 %	A65 %	75%	2%	885 % 9	15%	A8%	68%	2%	625 % 9	65%	A6%	68%	2%	A15 % 9	, 5%	. 5%	A5 %	2%	. 5% 9	9
Lit hes ugd Mooorccaclns	A 1	A 21	178	6	8. 8y 9	y, ,	A,	6, A	2	6, , y 9	6y7	A177	, 64	2	8284 9	, . A	, 4y	A1 1	2	481 9	66214
% Lit hes ugd Mooorccaclns	. 5%	483%	4. 5%	622%	483% 9	4. 52%	4y5 %	622%	2%	4y58% 9	4y5 %	483%	445%	2%	485 % 9	4. 5%	413%	4. 8%	2%	4y31% 9	475 %
Hnuva	8,	1,	,	2	621 9	A	8	2	2	y 9	2	4y	6	2	4. 9	,	A	2	2	7 9	, 61
% Hnuva	45%	67%	29%	2%	, 5% 9	2I%	62%	2%	2%	2I% 9	2%	, 5%	25%	2%	, 5% 9	25%	62%	2%	2%	25% 9	65%
Bicaclns og Roud	y	617	4	2	6. 6 9	6,	y	2	2	64 9	8	6, 6	2	2	6, 7 9	A	4	1	2	6. 9	A8A
% Bicaclns og Roud	63%	83%	63%	2%	A5% 9	63%	65 %	2%	2%	65% 9	, 5 %	A8%	2%	2%	, 5% 9	62%	, 5%	63%	2%	65% 9	, 5%
Pndnserius	9	9	9	9	9 2	9	9	9	9	9 6A .	9	9	9	9	9 y67	9	9	9	9	9 68, 1	
% Pndnserius	9	9	9	9	9 9	9	9	9	9	9 4y5%	9	9	9	9	9 4y5%	9	9	9	9	9 475 %	9
Bicaclns og Crosswulk	9	9	9	9	9 2	9	9	9	9	9 A7	9	9	9	9	9 , 2	9	9	9	9	9 1A	
% Bicaclns og Crosswulk	9	9	9	9	9 9	9	9	9	9	9 , 5%	9	9	9	9	9 , 5%	9	9	9	9	9 85 %	9

[*] Pndnserius gd Bicaclns og Crosswulk5L: Lnfe3R: Rit he3W WhrF3U: U9WFrg

5566814 - COVID - BANK ST @ SUNNYSIDE AVE - ... - TMC

Sat May 7, 2022
Full Length (10:30 AM-6:30 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 941369, Location: 54.395291, -74.683509

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 4J9, CA



5566814 - COVID - BANK ST @ SUNNYSIDE AVE - ... - TMC

Tue Mua y3, 2, ,
MOFFua l Lun g h (6 : gAA-92 1 M PA -92 l M:
1)) C)ussLs gi 0loes ur F Mcc:Hiav)Ls3BLuRa3l LFLsd0urs3w0(av)Ls cr k cuF3w0(av)Ls cr C)ussmu)n:
1)) McRLI Lr es
I0 - 47A9843i cvuc0cr - 57.945, 4A3By7.8b9524

l HRRFLF f a - C0m cONmumu
A22 Ccr sd.))uo0cr 6 l3
(LpLur 3N(3h , K 7G3C1

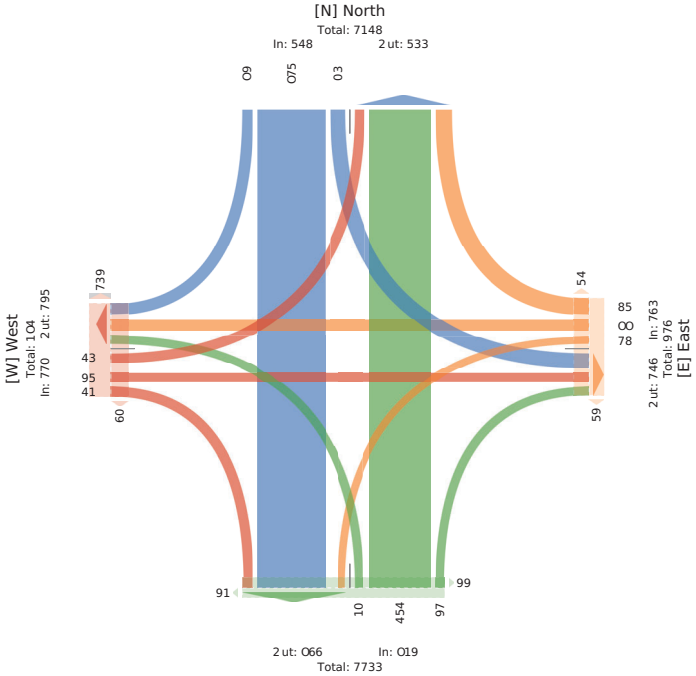
i Id 6 0llwe0cr	c0to TcEnofcErF					J use t Lsd cErF					Tc:Eno (c0nofcErF					t Ise J usd cErF					
StI L	k	S	i	W	1 pp l LFU	k	S	i	W	1 pp l LFU	k	S	i	W	1 pp l LFU	k	S	i	W	1 pp l LFU	0e
. 2, , I27I2y AA921 M	A7	A65	A	2	**Ay.A** P	, 7	A7	5	2	**55** , 9	y	A 8	4	2	**A5,** Ay	A2	4	4	2	**, b** 5A	**9b7**
AA571 M	A0	AA,	, 8	2	**A7A** P	, 5	A2	5	2	**9b** 9A	5	AA7	b	2	**A y** A7	A0	A,	4	2	**95** 79	**972**
A -221 M	A2	AA9	, 9	2	**A68** P	, 7	A4	8	2	**72** 97	4	AA4	y	2	**A07** A7	A	7	A5	2	**9A** 58	**98,**
A -A71 M	A7	A6y	A4	2	**AbA** P	, ,	AA	7	2	**9b** 9b	AA	A25	5	2	**AA4** Ab	y	A2	b	2	**, 7** 5A	**989**
Scu)	79	7A8	b2	2	**854** P	48	77	A4	2	**Ay2** A y	9A	585	, b	2	**7, 9** 87	5,	98	52	2	**AAb** AbA	**A582**
*** 1 ppl0uvo**	b., *	y4.7*	A, 9*	2*	**P** P	78.7*	9, .5*	AA, *	2*	**P** P	7.4*	bb.y*	7.5*	2*	**P** P	97.8*	92.7*	99.4*	2*	**P** P	P
*** Scu)**	9.8*	97.9*	7.7*	2*	**55.7*** P	8.8*	9.b*	A9*	2*	**AA8*** P	, .A*	9Ab*	A.4*	2*	**97.b*** P	, .4*	, .7*	, .y*	2*	**b.A*** P	P
l B%	2.bb9	2.b47	2.y84	P	**2.4AA** P	2.482	2.y, 5	2.y4,	P	**2.b72** P	2.8b,	2.4A4	2.yyb	P	**2.4Ab** P	2.b2b	2.yy9	2.8y4	P	**2.b85** P	2.47,
i 0lloes ur F Mcc:Hiav)Ls	5y	542	b2	2	**8Ay** P	47	77	A4	2	**A84** P	92	55A	, b	2	**544** P	5,	99	9b	2	**A90** P	A94b
*** i 0lloes ur F Mcc:Hiav)Ls**	bb.y*	47.2*	A22*	2*	**47.A*** P	44.2*	A22*	A22*	2*	**44.5*** P	48.b*	47.2*	A22*	2*	**47.5*** P	A22*	4Ay*	47.2*	2*	**47.b*** P	47.b*
B1u0Ba	, 8	AA	2	2	**Ay** P	A	2	2	2	**A** P	2	A7	2	2	**A7** P	2	A	2	2	**A** P	95
*** B1u0Ba**	AA9*	, .A*	2*	2*	**, .B*** P	A2*	2*	2*	2*	**2.B*** P	2*	9, .*	2*	2*	**, .4*** P	2*	, .b*	2*	2*	**2.b*** P	, .9*
w0(av)Ls cr k cuF	2	A7	2	2	**A7** P	2	2	2	2	**2** P	A	b	2	2	**4** P	2	,	,	2	**5** P	, b
*** w0(av)Ls cr k cuF**	2*	, .4*	2*	2*	**, .9*** P	2*	2*	2*	2*	**2*** P	9, .*	Ay*	2*	2*	**Ay*** P	2*	7.8*	7.2*	2*	**9.5*** P	A4*
l LFLsd0urs	P	P	P	P	P 2	P	P	P	P	P A ,	P	P	P	P	P 7b	P	P	P	P	P A0y	
* l LFLsd0urs	P	P	P	P	P P	P	P	P	P	P 48.A*	P	P	P	P	P b4., *	P	P	P	P	P 4, .9*	P
w0(av)Ls cr C)ussmu)n	P	P	P	P	P 2	P	P	P	P	P 7	P	P	P	P	P y	P	P	P	P	P A6	
* w0(av)Ls cr C)ussmu)n	P	P	P	P	P P	P	P	P	P	P 9.4*	P	P	P	P	P A2.b*	P	P	P	P	P y.y*	P

[1] l LFLsd0urs ur F w0(av)Ls cr C)ussmu)n. i - i L0@3k - k 0lloe3S - S oHE3W- WfS Eh0

5566814 - COVID - BANK ST @ SUNNYSIDE AVE - ... - TMC

Sat May 7, 2022
Midday Peak (WKND) (11:30 AM - 12:30 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 941359, Location: . 4639. 291, -746583. 09

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 4J9, CA



5566814 - COVID - BANK ST @ SUNNYSIDE AVE - ... - TMC

Tue Mua y3, 2, ,
0M 0Ful In g t h (I6 0M : A0M(: - 9F1uPP0Ful) Cs1
i PPcd RhooFo Ir cH(av)uBR MGtCbwaWFo3) Fu9a30FRFoeluuBo3k cwaWFo CB3mCuR3k cwaWFo CB
d 1Cool uB((
i PPMC9FD FBRo
4n 785. 6b83r CvuoCB7 A5f68A 8. 3:y5fbO6A28

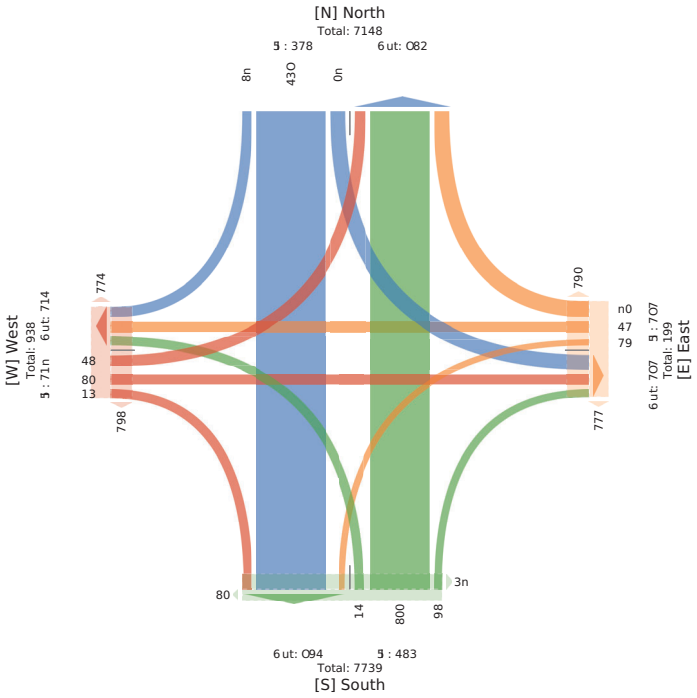
0 1C9dRFRUNa7d oa Cp - oul u
. 22 d CBoFFBhoCB h 13
t FKFuB3- t 3g , G 5J83d i

r FH h cIFveCB	t Clev TGs evNGsBR					Euxe n FoeNGsBR					TGs ev t ClevNGsBR					n Foe EuoeNGsBR					
SsDF	m	S	r	W	i KK 0FRL	m	S	r	W	i KK 0FRL	m	S	r	W	i KK 0FRL	m	S	r	W	i KK 0FRL	4e
, 2, , :25:2y 67220M	. .	. Ay	, .	2	**. y8** :	, .	. 6	y	2	**A** A	,	. 6.	A	2	**. 6y** 65	. 2	. ,	. ,	2	**6A** b,	**68.**
67.50M	. ,	. 56	, ,	2	**. Oy** :	, 8	. b	.	2	**Ab** O	y	. . A	. ,	2	**. 66** A	. .	8	. 6	2	**66** b,	**688**
67620M	. A	. , 8	, .	2	**. bA** :	, 5	8	.	2	**65** 5A	O	. , 6	y	2	**. 6O** .	O	. 5	. A	2	**6y** bb	**6yA**
6776OM	. ,	. Ay	, 5	2	**. OA** :	, 6	. 6	6	2	**68** b6	y	. , 2	. ,	2	**. 68** , 8	O	. ,	. 5	2	**65** A8	**68y**
SCmP	A8	5yb	O8	2	**y. A** :	8O	5.	. ,	2	**. b.** , 68	, A	AOO	65	2	**5Ay** . , y	6y	AO	5A	2	**. 68** , 68	**. 5b.**
*** i KKCLuw**	bB*	OBy*	. , I5*	2*	**:** :	b2B*	6. fy*	y5*	2*	**:** :	AA*	OBf, *	bA*	2*	**:** :	, bA*	6A5*	6OO*	2*	**:** :	:
*** SCmP**	6f. *	6bB*	5fy*	2*	**A6y*** :	bI6*	6I5*	2IO*	2*	**. 2I6*** :	. I5*	6. I6*	, (. *	2*	**65.2*** :	, fA*	6f. *	6I5*	2*	**OB*** :	:
0) %	2IOy5	2IBA6	2IOOB	:	**2IB5y** :	2IO 8	2IOy5	2IA, 8	:	**2IOOb** :	2fyOb	2IB. y	2fy, 8	:	**2IByb** :	2IOy5	2IB2	2IB22	:	**2IB, b** :	2IBy5
r cHvwuBRMGtCbwaWFo	AA	5A6	OA	2	**by.** :	85	A8	. ,	2	**. 5b** :	, ,	A6A	65	2	**5. .** :	65	Ay	5A	2	**. 6b** :	. Ay A
*** r cHvwuBRMGtCbwaWFo**	OBOP	8A6*	8AA*	2*	**8A2*** :	8bB*	8bI. *	. 22*	2*	**8bB*** :	8. fy*	866I*	. 22*	2*	**866A*** :	8Ab*	8yB*	. 22*	2*	**8yBO*** :	8A0A*
) Fu0a	5	O	.	2	**. A** :	2	2	2	2	**2** :	2	. ,	2	2	**. ,** :	2	.	2	2	**.** :	. y
***) Fu0a**	2I, *	. fA*	. I, *	2*	**, I2*** :	2*	2*	2*	2*	**2*** :	2*	. I5*	2*	2*	**, I, *** :	2*	, I, *	2*	2*	**2fy*** :	. fy*
k cwaWFo CB3mCuR	2	, 5	A	2	**, B** :	6	,	2	2	**5** :	,	, ,	2	2	**, A** :	,	2	2	2	**,** :	b2
*** k cwaWFo CB3mCuR**	2*	A6*	A5*	2*	**AC *** :	6I. *	6B*	2*	2*	**6I. *** :	Ol6*	A5*	2*	2*	**AbA*** :	5fA*	2*	2*	2*	**. fA*** :	6IO*
0 FRFoeluuBo	:	:	:	:	: 2	:	:	:	:	: 6A	:	:	:	:	: , b	:	:	:	:	: 6.	
* 0 FRFoeluuBo	:	:	:	:	: :	:	:	:	:	: 8yB*	:	:	:	:	: 8BI, *	:	:	:	:	: 8bAy*	:
k cwaWFo CB3d 1Cool uB	:	:	:	:	: 2	:	:	:	:	: 5	:	:	:	:	: :	:	:	:	:	: O	
* k cwaWFo CB3d 1Cool uB	:	:	:	:	: :	:	:	:	:	: , I, *	:	:	:	:	: 2IO*	:	:	:	:	: 6I6*	:

[1] 0 FRFoeluuBo uBR k cwaWFo CB3d 1Cool uB f r 7r Fpe3m7 mdHv@S 7S v Is 3 W7 W.S s 1B

5566814 - COVID - BANK ST @ SUNNYSIDE AVE - ... - TMC

Sat May 7, 2022
PM Peak (WKND) (1 PM : 3 PM) : - Oevarr Peak l Hbv
u rr: AraCCbC(s li igtCahn MHHkdydreC, l eaOy, PeneCdvlahC, c IdydreCHh BHnn, c IdydreCHh AvHCCRark)
u rr: MHDewehtC
nDI 9451. 9, s HatDhI 346193295, :746 81309



5566814 - COVID - BANK ST @ EXHIBITION WAY -... - TMC

TueMua y3, 2, ,
0Fll Lngt dh (62:A2 - M9l:A2 PM)
- ll Clussns (Lit hes ugd Mooorcaclns3Hnuva3Pndnsoriugs3Bicaclns og Roud3Bicaclns og Crosswulk)
- ll Movnmnges
ID: 4768683Locueiog: 875A4. y1839y75l. 7. 4A

Providnd ba: Cien of Oeuwu
622 Cogsenlluoiog Dr3
Nnpnug3ON3K, G 7J43C-

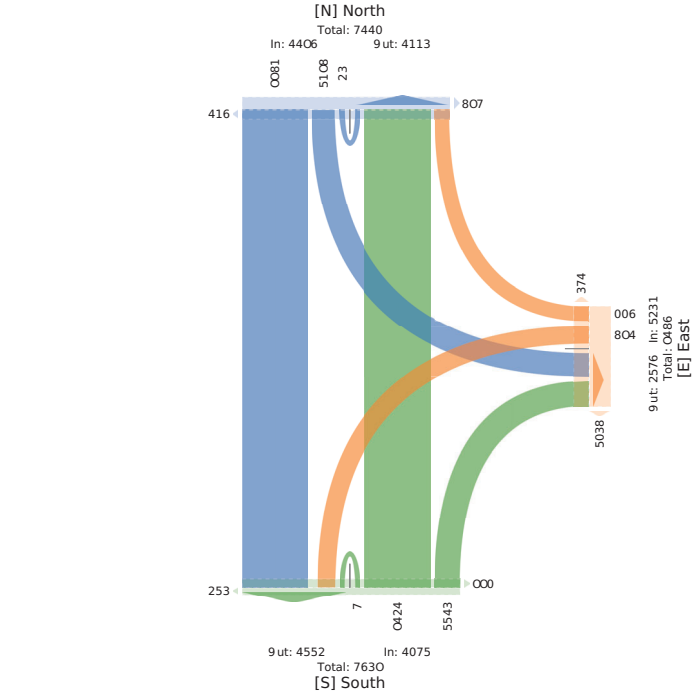
Lnt Dirncdog	Noreh ToFehboFgd					Euse S nseboFgd					ToFeh NorehboFgd					
Wmn	W	L	U	- pp	Pnd*	R	L	U	- pp	Pnd*	R	W	U	- pp	Pnd*	lge
, 2, , 9279 2y 62:22- M	, 2A	72	6	**, 78**	74	67	Al	2	**76**	88	84	, , ,	6	**, y.**	6A	**7. A**
66:22- M	8, 4	46	6	**7, 6**	yA	17	. ,	2	**68y**	6. 1	44	876	6	**776**	8.	**6, 64**
6, :22PM	824	6Al	,	**78y**	627	1y	. .	2	**677**	646	6A6	824	2	**782**	8,	**6, 8,**
6:22PM	868	4y	,	**76A**	6, .	72	y4	2	**6, 4**	, . 4	661	82A	2	**764**	11	**6616**
, :22PM	87.	68A	A	**128**	616	1.	. ,	2	**672**	, 1y	6, A	8, 8	2	**78y**	. 7	**6A26**
A:22PM	888	681	A	**74A**	6. 7	. 2	62A	2	**6. A**	A68	678	8A6	2	**7. 7**	. 8	**6A16**
8:22PM	8A4	672	7	**748**	67.	4A	6, 8	2	**, 6y**	872	6. A	888	,	**1, 4**	62.	**6882**
7:22PM	A. 1	6A	y	**746**	, 66	. 4	. 7	2	**6y8**	17y	, 24	8A2	2	**1A4**	y1	**6A88**
1:22PM	6. .	. 1	7	**, y4**	18	, 4	77	2	**. 8**	, 8A	. 7	, 28	8	**, 4A**	A,	**171**
Wend	AAy2	62Ay	, 4	**88A1**	6688	771	yA8	2	**6, 42**	, 7. 6	6684	A8, 8	.	**87. 6**	778	**62A2y**
% - pprouch	y152%	, A8%	25%	**9**	9	8.A6%	7158%	2%	**9**	9	, 78%	y85%	25, %	**9**	9	9
% Wend	A, 5%	6256%	25%	**8A52%**	9	78%	y36%	2%	**6, 5%**	9	663%	A4, %	2%	**8839%**	9	9
Lit hes ugd Mooorcaclns	A61y	626,	, .	**8, 2y**	9	764	1. 2	2	**6644**	9	62 A4	A6. 4	.	**8, Al**	9	418,
% Lit hes ugd Mooorcaclns	4852%	4y5 1%	415 1%	**485 %**	9	4A6A%	4, 5 1%	2%	**4, 58%**	9	423B%	4A6%	622%	**4, 5%**	9	4A5%
Hnuva	47	62	2	**627**	9	.	7	2	**y**	9	,	622	2	**62,**	9	, 68
% Hnuva	, 5 %	652%	2%	**, 38%**	9	2 16%	25 y%	2%	**25%**	9	25, %	, 54%	2%	**, 5 %**	9	, 36%
Bicaclns og Roud	62.	67	6	**6, 8**	9	A7	84	2	**. 8**	9	62.	6A7	2	**, 8A**	9	876
% Bicaclns og Roud	A5 %	638%	A8 8%	**, 5 %**	9	150%	15 y%	2%	**15%**	9	438%	A64%	2%	**758%**	9	838%
Pndnsoriugs	9	9	9	9	66, y	9	9	9	9	, 764	9	9	9	9	768	
% Pndnsoriugs	9	9	9	9	4. 5 7%	9	9	9	9	4y51%	9	9	9	9	4, 5 %	9
Bicaclns og Crosswulk	9	9	9	9	6y	9	9	9	9	1,	9	9	9	9	82	
% Bicaclns og Crosswulk	9	9	9	9	65 7%	9	9	9	9	, 38%	9	9	9	9	y5 %	9

*Pndnsoriugs ugd Bicaclns og Crosswulk5L: Lnfe3R: Rit he3W WhrF3U: U9WFrg

5566814 - COVID - BANK ST @ EXHIBITION WAY -... - TMC

Sat May 7, 2022
Full Length (10:30 AM-6:30 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 941515, Location: 54.398765, -74.684893

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 4J9, CA



5566814 - COVID - BANK ST @ EXHIBITION WAY -... - TMC

TueMua y3, 2, ,
M(FFua l Lun gt h (6 : gAA-92 1 M PA -92 l M:
1)) C)ussLs gi (tloes ur F McocHavJLs3BLuRa3l LFLsedHurs3w0(avJLs cr k cuF3w0(avJLs cr Chtssmu)n:
1)) McRLI Lres
Ib - 47A8A83i cvuedcr - 875A4. yb83Jy75b. 7. 49

l heRDFLF fa - C0in cONeumu
A22 Ccr seL))uedcr 6 H3
(LpLur 3N(3h , K 7GL3C1

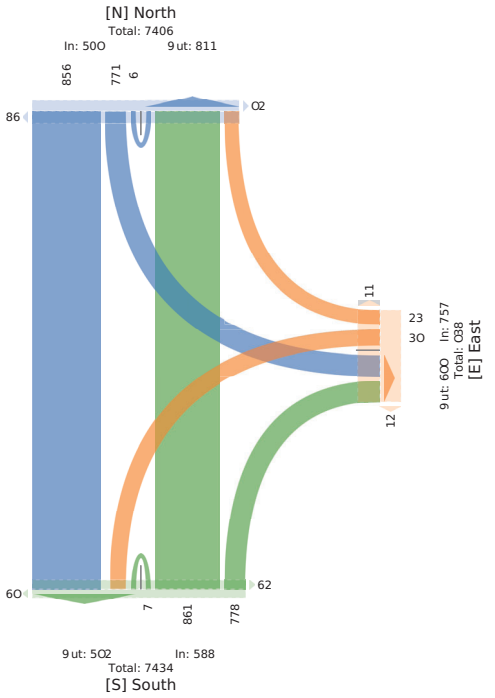
i Id 6 OHvedcr	(chlo TcEsofc Er F					Juse t Lsefc Er F					TcEso (chlofc Er F					
SOI L	S	i	W	**1 pp**	l LFU	k	i	W	**1 pp**	l LFU	k	S	W	**1 pp**	l LFU	**Dhe**
, 2, , B27 By AA-921 M	A, 9	, b	A	**A72**	, 7	, A	Ay	2	**9.**	8b	, 9	AAb	2	**A94**	AA	**9, y**
AA-871 M	A27	, 7	2	**A92**	A2	A7	, b	2	**8A**	7b	, ,	A2y	A	**A92**	Ay	**92A**
A, -221 M	A24	, y	A	**A9y**	, A	A4	A4	2	**9.**	8,	8,	AA8	2	**A7b**	AA	**99A**
A, -A71 M	AA7	8A	2	**A7b**	, ,	A9	, A	2	**98**	7A	, y	4,	2	**AA4**	A2	**924**
Scau)	87,	AA4	,	**7y9**	y.	b,	, 9	2	**A7A**	AA7	AA8	8, 4	A	**788**	84	**A, b.**
*** 1 ppHuvo**	y. 5A*	, 25 *	2Sy*	**P**	P	875 2*	775 2*	2*	**P**	P	, A52*	y. 5A*	25, *	**P**	P	P
*** Scau)**	973 b*	43B*	25, *	**875, ***	P	73B*	b57*	2*	**AA6A***	P	452*	995 *	25A*	**8, 5A***	P	P
1 B%	25427	25y9.	25722	**25892**	P	25 , 4	25 , b	P	**25894**	P	25 b4b	25L, 7	25, 72	**25 y2**	P	25 ky A
i 0loes ur F McocHavJLs	8, 9	AAb	,	**78A**	P	b9	y7	2	**A9.**	P	A29	82A	A	**727**	P	AA 8
*** i 0loes ur F McocHavJLs**	493 b*	4y5 7*	A22*	**4858***	P	4, 3 b*	423B*	2*	**4A8B***	P	423B*	495 7*	A22*	**4, 5 ***	P	495B*
BLuRa	A7	,	2	**Ay**	P	2	A	2	**A**	P	2	Ay	2	**Ay**	P	97
*** BLuRa**	95A*	A5y*	2*	**952***	P	2*	A5 *	2*	**25y***	P	2*	852*	2*	**95A***	P	, 5 *
w0(avJLs cr k cuF	A8	A	2	**A7**	P	7	y	2	**A,**	P	AA	AA	2	**, ,**	P	84
*** w0(avJLs cr k cuF**	95A*	25 *	2*	**, 3A***	P	y3B*	. 5B*	2*	**y5A***	P	43y*	, 3A*	2*	**852***	P	95A*
l LFLsedHurs	P	P	P	P	yb	P	P	P	P	A 9	P	P	P	P	87	
* l LFLsedHurs	P	P	P	P	4y3B*	P	P	P	P	495 *	P	P	P	P	4A5 *	P
w0(avJLs cr Chtssmu)n	P	P	P	P	,	P	P	P	P	A,	P	P	P	P	8	
* w0(avJLs cr Chtssmu)n	P	P	P	P	, 3A*	P	P	P	P	b5 *	P	P	P	P	, 5 *	P

[1] l LFLsedHurs ur F w0(avJLs cr Chtssmu)n5i - i L03k - k 0loe3S - SoHE3W- WBSEhf

5566814 - COVID - BANK ST @ EXHIBITION WAY -... - TMC

Sat May 7, 2022
Midday Peak (WKND) (11:30 AM - 12:30 PM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 941515, Location: 54.396785, -74.864693

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 4J9, CA



5566814 - COVID - BANK ST @ EXHIBITION WAY -... - TMC

TueMua y3, 2, ,
0M 0Ful Ia g t h (I6:A- 0M 9:A- 0M(9 1 PF)uCD:Ful s i d)
o (Cr GccFc: IHkBRec uwk Mi ei)nanCEc3s FuPa 30 FkFce)vuwc3I vnanCEc i wDi uk3I vnanCEc i w
r)i cc4 uCl (
o (CMi PF7 Fwcc
6h : 5-. A A3Hi nuesi w A-I65f yOA39y-hCI - f 56

0)i PukFk Na: r ran i p l ecu4 u
. 22 r i wceFCaesi wh)3
t FKFuw31 t 3g , G - J53r o

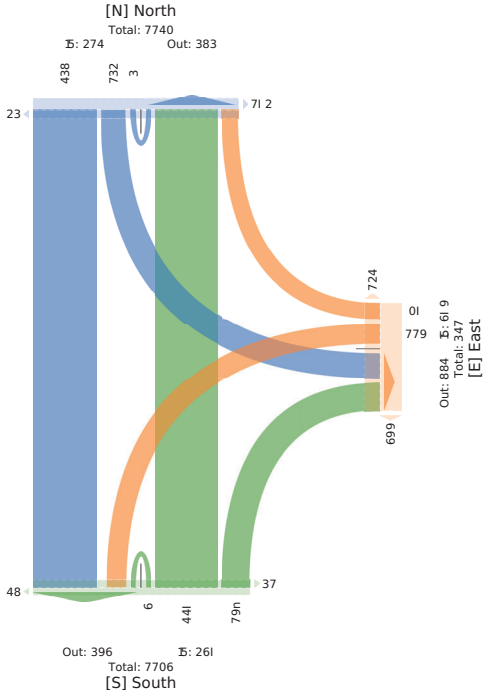
HFB h yjFnnvi w	t i)dR Ti deRN dwk					Euce n FeaN dwk					Ti deR t i)dRN dwk					
SvP F	S	H	W	o kKK	0FkU	D	H	W	o kKK	0FkU	D	S	W	o kKK	0FkU	ave
, 2, , 9P-9Zy 6:A-0M	. . 2	6-	.	. AO	O6	. f	, A	2	A,	. 22	Ay	. , 2	2	. Oy	. f	6- -
A:220M	. , 5	A5	,	. f 2	6,	. O	66	2	A5	. 22	A	5O	.	. 6f	, y	6Oy
A. - 0M	. . 6	6,	,	. Ay	A-	, y	6O	2	O6	. . .	Ay	. - -	.	. O6	, A	6y6
A:620M	. 2.	A2	2	. A	6.	, 5	, A	2	- 6	- , 2	A6	. 25	2	- -,	. -	6AO
Si euC	A- 6	. - O	-	O: A	. y.	52	. , y	2	, 2y	AA	. yf	AA2	,	O: 2	5A	. AA
* o kKQi unR	y6lf *	, - bA*	2lf *	9	9	A6b *	- Ob *	2*	9	9	, fby*	y. l2*	2l6*	9	9	9
* Si euC	6. bA*	. 2lf *	2l6*	A, hO*	9	Oh *	f b *	2*	. AbA*	9	. , bA*	62b *	2b *	A6l2*	9	9
0s %	2lf f -	2by f.	2hQ -	2lf - 6	9	2lf 2O	2lf 6.	9	2lf 66	9	2l5. 5	2l5, f	2b 22	2l5, f	9	2l5OO
HaERec uwk Mi ei)nanCEc	A -	. - ,	-	- f,	9	f O	. , 6	2	. 55	9	. - f	A 6	,	- y6	9	. 6- A
* HaERec uwk Mi ei)nanCEc	56lf *	5y bA*	. 22*	5Alf *	9	5- hO*	5Oh O*	2*	5Oh *	9	f f lf *	56l5*	. 22*	5, bA*	9	5A2*
s FuPa	. A	.	2	. -	9	.	2	2	.	9	. 2	. 2	2	. 2	9	, O
* s FuPa	6b *	2lO*	2*	, bA*	9	. b *	2*	2*	2b *	9	2*	, b5*	2*	. hO*	9	. lf *
I vnanCEc i wDi uk	. A	6	2	. y	9	6	A	2	y	9	. 2	. y	2	6y	9	Oj
* I vnanCEc i wDi uk	6b *	. b5*	2*	, lf *	9	6b5*	6bA*	2*	6bA*	9	. . h *	6l5*	2*	Ol2*	9	Ab *
0FkFce)vuwc	9	9	9	9	. y2	9	9	9	9	A, f	9	9	9	9	5.	
* 0FkFce)vuwc	9	9	9	9	55bA*	9	9	9	9	5yb *	9	9	9	9	5Ol *	9
I vnanCEc i wr)i cc4 uCl	9	9	9	9	.	9	9	9	9	. 6	9	9	9	9	6	
* I vnanCEc i wr)i cc4 uCl	9	9	9	9	2hO*	9	9	9	9	, b5*	9	9	9	9	6b *	9

[1] 0FkFce)vuwc uwk I vnanCEc i wr)i cc4 uCl bH: HFp:3D: DvERRe3S: SRjd3W: W9S d)w

5566814 - COVID - BANK ST @ EXHIBITION WAY -... - TMC

Sat May 7, 2022
PM Peak (WKND) (1:3- PM O3:3- PM) Ov r elaHHPeak o uAl
CHHs ldlLeL (i gntLadc MutulBy Hdl, o ear y, PeceIrlgudL, RgBy Hdl ud wuac, RgBy Hdl ud s luILmaRk)
CHHMur el edtL
9D: 4- 5353, i uHatgud: 3- .146783, O7- .86- 641

Plur g:ec by: s gy uf v ttama
500 s udIteHktgud Dl,
Nepead, v N, K2G - J4, s C



5566814 - COVID - BANK ST @ FIFTH AVE - MAY ... - TMC

T ue T Mi y3, 2, ,
0FIl Lnegth (6:A2 - T 9l, ; A2 P T)
P ll ClMsns (Lights Mcd T utuorarlns3c nMh3- ndnstciMds3virarlns ue BuMd3virarlns ue CoussRMdw)
P ll T uHnk nets
nh : y6y1DA3LurMiue: 6D6217839BDf758D5

- ouHdrd . a: Cita ubf ttMRM
122 CuestnllMdue I o3OmNnM3f O3p , K DGy3CP

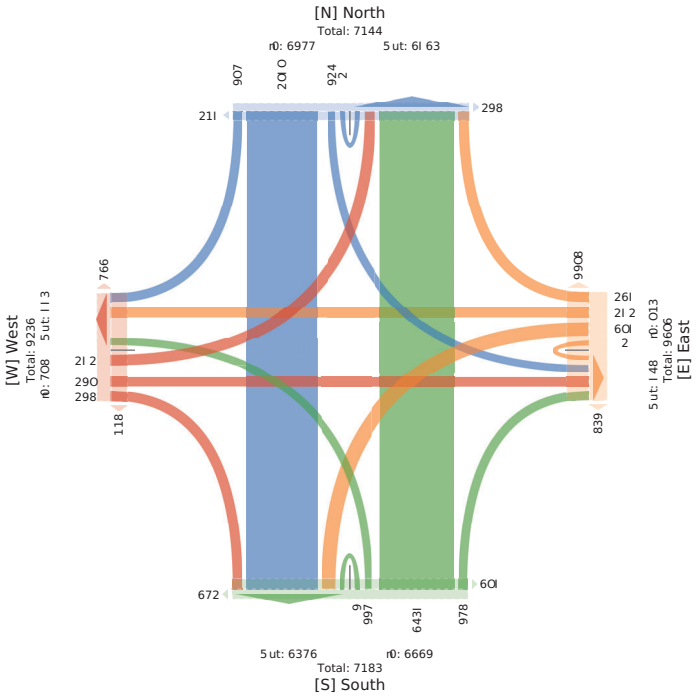
Lng I iorrtiue	Oanh EuFth. uFed					J Mt S rst. uFed					EuFth Oanh. uFed					S rst J Mt. uFed					
Wk n	B	W	L	U	P NN - nd*	B	W	L	U	P NN - nd*	B	W	L	U	P NN - nd*	B	W	L	U	P NN - nd*	nt
, 2, , 9ZDEy 6:22- T	1D , 82	5	2	, yA	61	15 , 1	A	2	81	16y	, 8 , 25	D	2	, 62	7y	, 6 , 8	, ,	2	8A	12A	788
D:22- T	, A DDI	, D	2	72D	115	At 6D	7D	2	161	AA	, 5 65,	17	2	D7	167	A DF	DI	2	1A5	, 1A	1612
7:22- T	A6 621	12	2	66D	121	61 72	77	2	178	6, 7	AD 668	, A	2	IDD	111	DI 6,	A6	2	1, 7	, y5	1, 6A
8:22- T	A6 A76	1D	1	616	87	DA DF	7A	2	18,	618	, 8 6AA	1y	2	68y	128	A D	A7	2	1, 2	, 88	115D
5:22- T	, 7 611	11	2	665	77	, 1 , A	62	1	5D	, AO	1y A65	18	2	A66	128	, A 18	A	2	8,	165	y5y
y:22- T	, 6 , y7	, ,	2	A6,	AD	1D 16	67	2	8D	1, y	1A A D	1A	1	AD	DD	, 1 1A	, A	2	D8	y8	5, 7
12:22- T	, 1 A66	, 2	2	ASD	Ay	At , 6	68	1	12A	A75	11 6D8	17	2	656	1, 1	, D y	61	2	8D	, A	1268
11:22- T	D 17A	D	2	18A	y	, 1 5	, ,	2	DI	DD	7 , 7y	D	2	, 52	, 2	5 ,	11	2	, 1	Al	D, D
. 2, , 9ZDDI2 1, :22P T	6 D,	6	1	71	y	6 1	6	2	y	1y	A 87	,	2	51	8	6 2	A	2	8	1A	1D5
VuuMd	157 , 5D5	1, 2	,	AI77	6y6	, AD , D	A5D	,	586	, 1A2	17y A26D	117	1	AAAI	868	, 1y , 15	, D,	2	75y	161,	5272
% P NNuuMh	DA% y:4%	A6%	24%	9	9	, 74% , 5.6%	664%	24 %	9	9	DI% y14%	A D3%	2%	9	9	Al-4% Al-4%	A7-4%	2%	9	9	9
% VuuMd	, 4% ADD%	14D%	2%	Ay-8%	9	, 4% , A4 %	64%	2%	12-6%	9	, 4% A84%	14%	2%	614%	9	, 4% , 4%	A4 %	2%	54D%	9	9
Lights Mcd T utuorarlns	15A , 81,	115	,	A2 ID	9	, , 5 , 28	A61	,	515	9	16D , y1A	128	1	AI77	9	, 2D 17,	, 67	2	71A	9	871,
% Lights Mcd T utuorarlns	y:54% y64%	y54%	122%	yDI %	9	y:84% 5, 4 %	yy42%	122%	yAI%	9	SD6% yD4%	y, 4 %	122%	yD2%	9	yAI% 864%	y84%	2%	5y-2%	9	y6-64%
c nMh	1 75	1	2	82	9	A 2	1	2	6	9	, D8	1	2	72	9	1 ,	,	2	D	9	1Ay
% c nMh	2-I3% , 4%	24%	2%	, 4 %	9	14% 2%	24%	2%	2-I3%	9	14 % 14%	24%	2%	14-6%	9	2-I3% 24%	24%	2%	24-6%	9	14%
virarlns ue BuMd	, 85	1	2	51	9	6 6D	A	2	D	9	, , 8D	5	2	12D	9	1A D6	6	2	81	9	A2y
% virarlns ue BuMd	14% , 4%	24%	2%	, 4%	9	14% 1B4%	24%	2%	DA%	9	LA2% , 4%	74%	2%	A4 %	9	DA% , 64%	14%	2%	124%	9	A6%
- ndnstciMds	9 9	9	9	9	6BD	9 9	9	9	9	, I25	9 9	9	9	9	8A	9 9	9	9	9	1Ay8	
% - ndnstciMds	9 9	9	9	9y74 %		9 9	9	9	9yy4%		9 9	9	9	9 y54%		9 9	9	9	9 y54%		9
virarlns ue CoussRMdw	9 9	9	9	9	1y	9 9	9	9	9	, ,	9 9	9	9	9	1D	9 9	9	9	9	1D	
% virarlns ue CoussRMdw	9 9	9	9	9	A6%	9 9	9	9	9	14%	9 9	9	9	9 , 4%		9 9	9	9	9	14 %	9

*- ndnstciMds Mcd v virarlns ue CoussRMdw4L: Lnht3B: Bight3W WhoF3U: U9WFoe

5566814 - COVID - BANK ST @ FIFTH AVE - MAY ... - TMC

Mon May 9, 2022
Full Length (4:30 PM-12:30 AM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 949153, Location: 45.40167, -75.68758

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5566814 - COVID - BANK ST @ FIFTH AVE - MAY ... - TMC

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA

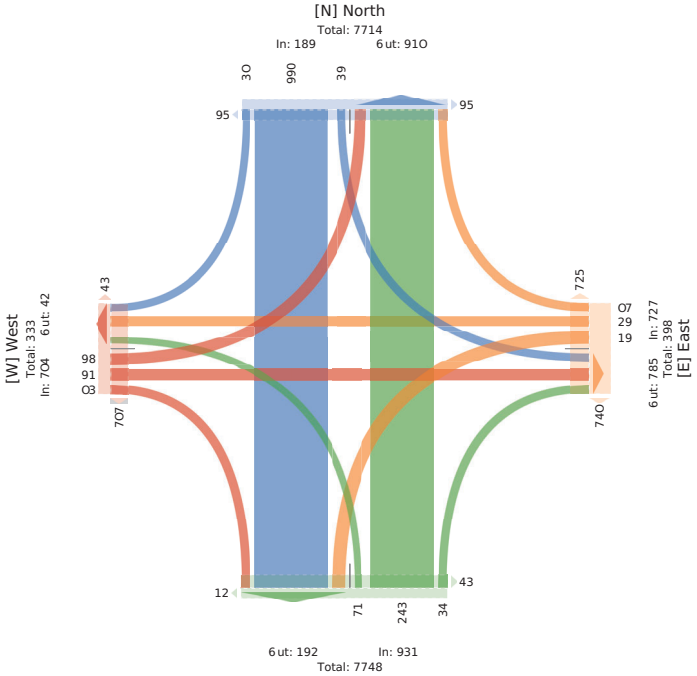
CFi k s:Fcoaue	f u:oal J u9oal. u9er					GMjo E Fjo u9er					Ju9ul f u:oal. u9er					E Fjo GMjo u9er					
SsRF	v	S	C	W	1 CO	0Fr U	v	S	C	W	1 CO	0Fr U	v	S	C	W	1 CO	0Fr U	v	S	C	W	1 CO	0Fr U	wo
, 2, , gmg2y nn120T	4	Ω,	5	2	Dl4	4,	t	5	Dn	2	, y	85	t	ΩΩ5	t	2	Dl2	nΩ	I	Dl	Dl	2	42	t D	4, ,
mΩn0T	I	Ω2	n	2	Ω y	12	t	5	Ω	2	42	54	t	Ω y	I	2	Dly	44	8	DΩ	y	2	44	n2	4nD
mn120T	5	Dnl	5	2	Dl2	, D	DD	Dl	Ω	2	45	t y	y	ΩDl	,	2	Ω I	4n	5	Ω,	Dl	2	4l	n2	4t t
mΩn0T	5	ΩlD	I	2	Dn4	, n	5	Dn	,	2	I I	DΩ,	8	Ω,	I	2	Dl4	, 8	Dl	Dl	Dl	2	1 D	n,	48D
SuMΩ	, 4	nn8	, n	2	t 2n	ΩΩ5	4D	I n	t n	2	ΩlD	44,	, 5	I 5,	Ω	2	n, t	lΩ t	4,	nt	n2	2	Dl5	, Dl	Dl Dl2
* 1 COuMdl	,47 5*	y, 7D*	I Ω7*	2*	g	g,	, 72*	4Ω5*	I t 7D*	2*	g	g	n7l*	y Dl *	47l*	2*	g	g,	47 *	122 *	4t 7 *	2*	g	g	g
* SuMΩ	Dl *	4y7l*	Ω5*	2*	1, 7*	g	, 7 *	47 *	I 7 *	2*	Dl2*	g	, 2*	4l 7 *	Ω7*	2*	48 7*	g	, 7l*	I 72*	47l*	2*	y5*	g	g
0- %	2 8Dy	2 7yDl	2 8 5D	g	2 5y8	g	2 8n2	2 5Ω5	2 5 2 2	g	2 5 4 4	g	2 7 5, D	2 7yDl	2 7 t 8	g	2 7yΩ5	g	2 8 8 8	2 8n2	2 5 8n	g	2 B 4 5	g	2 7y4n
Csi dcj Mr T uuucacA5)	, 4	n4D	, n	2	nBy	g	, 5	4t	t 4	2	Dj 8	g	, 4	I n,	Ω	2	I yD	g	42	I D	I 5	2	Dly	g	DΩD
* Csi dcj Mr T uuucacA5)	Dl2*	ym7l*	Dl2*	2*	ym7l*	g	y2 7l*	52 2*	yt 7j*	2*	y2 D7*	g	5, 7D*	y4 7 5*	Dl2*	2*	y4 7l*	g	y4 7 5*	84 7, *	yt 2*	2*	5t 7, *	g	y4 7l*
- FMda	2	Dl	2	2	Dl	g	,	2	D	2	4	g	, 2	Dj	2	2	Dj	g	2	, D	D	2	,	g	42
* - FMda	, 2*	, 7l*	2*	2*	, 7D*	g	t 7l*	2*	Dn*	2*	, 7D*	g	2*	, 7l*	2*	2*	, 7l*	g	2*	Dl5*	, 72*	2*	Dl *	g	, 7D*
HscacA5) ue vuM	2	Dl	2	2	Dl	g	D	y	D	2	DD	g	n	D5	2	2	, 4	g	,	Dl	D	2	Dl	g	t l
* HscacA5) ue vuM	2*	, 7l*	2*	2*	, 7D*	g	47 *	, 2 2*	Dn*	2*	85*	g	Dl 5*	47l*	2*	2*	I 7 *	g	t 7l*	, n2*	, 72*	2*	Dj 7l*	g	I 7l*
0Fr Fjo sM)	g	g	g	g	g	DΩ	g	g	g	g	g	4, ,	g	g	g	g	g	Dl 4	g	g	g	g	g	, DΩ	
* 0Fr Fjo sM)	g	g	g	g	g yl 7j*		g	g	g	g	g y8 2*		g	g	g	g	g y6 7j*		g	g	g	g	g yy7D*		g
HscacA5) ue P:u)) BMΩ	g	g	g	g	t		g	g	g	g	g	DΩ	g	g	g	g	g	4	g	g	g	g	g	,	
* HscacA5) ue P:u)) BMΩ	g	g	g	g	g nΩ*		g	g	g	g	g 42*		g	g	g	g	g , 7D*		g	g	g	g	g 2y*		g

[1] 0 Fr Fjo sM) Mr HscacA5) ue P:u)) BMΩ 7 CmCPu8v nv si dc2Sm8 d:93WnWdS9:e

5566814 - COVID - BANK ST @ FIFTH AVE - MAY ... - TMC

Mon May 9, 2022
PM Peak (May 09 2022 5PM - 6 PM) - Overall Peak Hour
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 949153, Location: 45.40167, -75.68758

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5566814 - COVID - BANK ST @ FIFTH AVE - MAY ... - TMC

Tue May 3, 20, 00

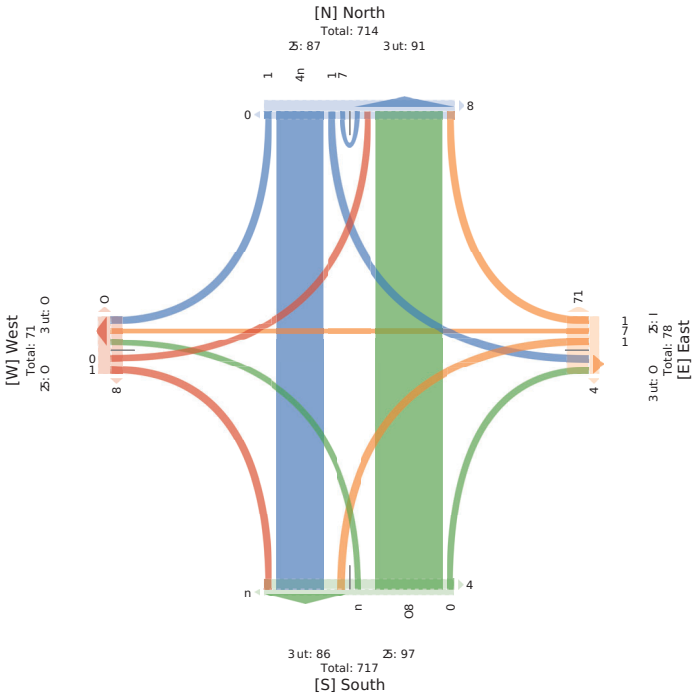
. e- RAei iACP	OCuD ECuD. CuP)						Ja6l S e6l CuP)						ECuD OCuD. CuP)						S e6l Ja6L CuP)					
TA e	c	T	:	W	FNN	l e) U	c	T	:	W	FNN	l e) U	c	T	:	W	FNN	l e) U	c	T	:	W	FNN	l e) U	BP1
0, 00g l gl, 30w, F M	3	Ω,	0	,	DD	m	0	3	0	,	I	30	3	nk	3	,	13	0	3	,	0	,	D	k	k0
30slI F M	D	00	0	3	05	l	0	,	0	,	m	8	0	08	3	,	Ω	l	D	,	3	,	m	m	77
TCJnh	m	I 0	m	3	73	k	m	3	m	,	k	3k	D	87	0	,	53	8	m	,	D	,	8	3D	315
* FNNCsi 9	7.0*	51.0*	7.0*	3.0*	g	g	mnn*	33.0*	mnn*	,*	g	g	D8*	kD6*	0 4 *	,*	g	g	184*	, *	n0.4*	,*	g	g	g
* TCJnh	0 4 *	D0.4*	0 4 *	,.7*	D5.7*	g	0 4 *	,.7*	0 4 *	,*	14.8*	g	3 4.*	n5.8*	3.4.7*	,*	13.4.7*	g	0 4 *	,*	3 4.*	,*	mnn*	g	g
l d %,	4, DD	, 4m7	, 4 ,	, 40	, 4.8 7	g,	4 ,	, 40	, 4 ,	,	g, 4 tl,	g,	4, 3l	, 43.8	, 4 ,	,	g, 4 q 7	g,	4, DD	g	, 43l	g,	4n D5	g	, 4mq
: A9 Ea P) MCDsi yi he6	m	n8	m	3	17	g	m	3	m	,	k	g	D	8,	0	,	8l	g	m	,	D	,	8	g	3n8
* : A9 Ea P) MCDsi yi he6	3, , *	k, 4n*	3, , *	3, , *	k3 6*	g	3, , *	3, , *	3, , *	,*	3, , *	g	3, , *	k0 4*	3, , *	,*	k0 4*	g	3, , *	,*	3, , *	,*	3, , *	g	kDl *
d eaoy	,	D	,	,	D	g	,	,	,	,	,	g	,	D	,	,	D	g	,	,	,	,	,	g	7
* d eaoy	, *	1 6*	, *	, *	mk*	g	, *	, *	, *	, *	, *	g	, *	Dk*	, *	, *	D8*	g	, *	, *	, *	, *	, *	g	D6*
r A yi he6 CP c Cj)	,	0	,	,	0	g	,	,	,	,	,	g	,	D	,	,	D	g	,	,	,	,	,	g	I
* r A yi he6 CP c Cj)	, *	D6*	, *	, *	DD*	g	, *	, *	, *	, *	, *	g	, *	Dk*	, *	, *	D8*	g	, *	, *	, *	, *	, *	g	D0*
l e) e6k AP5	g	g	g	g	g	k	g	g	g	g	g	3k	g	g	g	g	g	8	g	g	g	g	g	3D	
* l e) e6k AP5	g	g	g	g	g 3, , *		g	g	g	g	g 3, , *		g	g	g	g	g 3, , *		g	g	g	g	g 3, , *		g
r A yi he6 CP (sCB6Ha lL	g	g	g	g	,		g	g	g	g	,		g	g	g	g	,		g	g	g	g	,		
* r A yi he6 CP (sCB6Ha lL	g	g	g	g	, *		g	g	g	g	, *		g	g	g	g	, *		g	g	g	g	, *		g

[1] l e) e6k sAP6 aP) r A yi he6 CP (sCB6Ha lL4: w eb12c wc A 9 12Tw T9 su2 WwWdjTusP

5566814 - COVID - BANK ST @ FIFTH AVE - MAY ... - TMC

Tue May 3, 20, 00
AM Peak (May 3, 0, 00 30AM 83 AM:
A-- 9 -a))e) (l GLi) agh Mt it ndyd-e)2o ear y2Pehe)in Gag)2c Gdyd-e) t g Ht ah2c Gdyd-e) t g 9 rt))v a-k:
A-- Mt r eBegi)
Rwm1 D1 3472l t dai€ gmD45E) 3. 628645 1641

Ottawa
Pnt r Gieh bym9 Gy t f Oiiav a
3, , 9 t g)ie--ai€ g wn2
Nepeag2ON2K0G 4J1 29 A



5566814 - COVID - QUEEN ELIZABETH DRWY @ PRI... - TMC

T ue T M 1 y3, 2, ,
0Fll Lnegth (6:A2 - T 9l, :A2 P T)
P ll CIMdsns (Lights Mcd T utucrarlns3c nMHh3- ndnstoiMds3v irarlns ue BuMd3v irarlns ue CoussRMdv)
P ll T uHnk nets
nh : y6y1 D23LurMdue: 647621D639D47852AD5

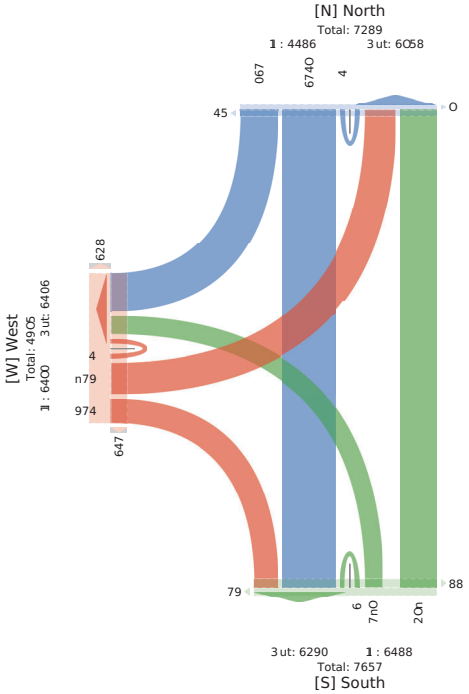
Lng I ionrtiue Wk n	Ouoth JuFth. uFed B	W	U	P NN	- nd*	JuFth Ouoth. uFed W	L	U	P NN	- nd*	E nst SMt. uFed B	L	U	P NN	- nd*	mt
, 2, , 9249 2y 6:22- T	88	1y,	2	, 45	A	yD	A	2	1, y	A	, 4	, D	2	4,	AD	6Ay
4:22- T	1D5	A4A	2	4A1	y	, , y	124	2	AA6	16	6y	44	2	126	8D	y8y
8:22- T	A2,	1, y	1	6A,	,	18A	y5	1	, 8,	, y	y5	5A	2	151	D5	5Dt
D22- T	116	18y	2	, 5A	4	165	8D	2	, 14	15	51	y4	,	1D5	4,	8D8
5:22- T	8y	18D	1	, AD	6	121	, 2	2	1, 1	2	, 6	8A	2	5D	6y	664
y:22- T	85	1, A	2	1y1	A	44	, y	2	56	D	A6	8D	2	121	4	AD8
12:22- T	DA	1, 5	2	, 21	2	6y	1D	2	88	4	142	, 11	2	A81	1y	8, 5
11:22- T	Al	4y	2	y2	2	, 1	D	2	, 5	1	8A	125	2	1D1	2	, 5y
, 2, , 9249 12 1, :22 P T	1,	8	2	15	2	6	1	2	4	,	5	, 8	2	A6	2	4D
WtrMd	y1A	1A 8	,	**, , 61**	, 8	58D	AD8	1	**1, 66**	Dy	4A,	DM	,	**1, 8y**	A2D	**6DM6**
% P NNuMth	62 D%	4y2 %	2 7t%	**9**	9	8y D%	A2 2 %	2 7t%	**9**	9	61 3%	4D 3%	2 2 %	**9**	9	9
% WtrMd	1y2 %	, D3%	2%	**6D t%**	9	152 %	D3%	2%	**, 82 %**	9	11 2 %	142 8%	2%	**, 8 D%**	9	9
Lights Mcd T utucrarlns	y12	1A25	,	**, , , 2**	9	562	AD8	1	**1, 1D**	9	4, 1	D 5	,	**1, 41**	9	6855
% Lights Mcd T utucrarlns	yy D%	y5 8%	122%	**yy 1%**	9	y8 3%	122%	122%	**y D5%**	9	y D3%	yy 2%	122%	**y5 8%**	9	y5 8%
c nMth	1	,	2	**A**	9	,	2	2	**,**	9	2	1	2	**1**	9	8
% c nMth	2 1%	2 2 %	2%	**2 1%**	9	2 2 %	2%	2%	**2 2 %**	9	2%	2 1%	2%	**2 1%**	9	2 1%
v irarlns ue BuMd	,	18	2	**15**	9	, 4	2	2	**, 4**	9	11	8	2	**1D**	9	82
% v irarlns ue BuMd	2 2 %	1 2 %	2%	**25%**	9	, 3%	2%	2%	**, 2 2%**	9	, 1%	25%	2%	**12 8%**	9	12 8%
- ndnstoiMds	9	9	9	9	, 8	9	9	9	9	D1	9	9	9	9	, 61	
% - ndnstoiMds	9	9	9	9	122%	9	9	9	9	y 12 1%	9	9	9	9	D5 7t%	9
v irarlns ue CoussRMdv	9	9	9	9	2	9	9	9	9	D	9	9	9	9	88	
% v irarlns ue CoussRMdv	9	9	9	9	2%	9	9	9	9	53%	9	9	9	9	, 12%	9

*- ndnstoiMds Mcd v irarlns ue CoussRMdv7L: Lnh13B: Bight3W WhoF3U: U9WFce

5566814 - COVID - QUEEN ELIZABETH DRWY @ PRI... - TMC

Mon May 9, 2022
Full Length (4:30 PM-12:30 AM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 949150, Location: 4. 640154, -5. 6780358

Ottawa
Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G . J9, CA



5566814 - COVID - QUEEN ELIZABETH DRWY @ PRI... - TMC

T ue T M 1 y3, 2, ,
0T 0FMl LT Md 2y , 2, , ng n0T h(g n 0T 6h: A2-M90FMl 1 uP-
) 9hC9MdsFs Li dbrcs MdHT uou-vav9Fs31 FMdu30FHFscdMds3Bdcav9Fs ue RuMBBdcav9Fs ue C-usswMl 6
) 9hT uAFk Fecs
nh gyDyt 423i uvMdiegDn7 2t 4D3h4n7 82548

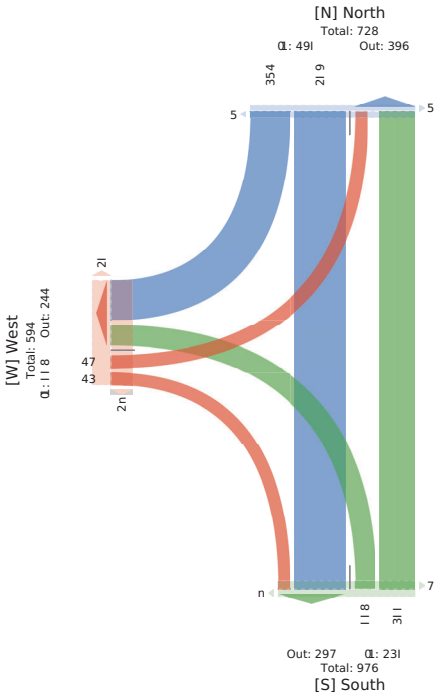
Ottawa
0-uAdHFH. agCda ub: ccMvM
t 22 CuesdP9Mdue I -3
f FOFM3: f 3N, p nK3C)

i Fo I dHVedue Sdc F	f u-cr CuPcr. uPeH R	S	W	) CO	0FHL	CuPcr f u-cr. uPeH S	i	W	) CO	0FHL	J Fsc EMc uPeH R	i	W	) CO	0FHL	mc
, 2, , h2nh2y ng n0T	5y	t 2y	2	t D8	,	(n	, n	2	y2	(	t n	t ,	2	, 4	t 8	, (n
ng 620T	D1	45	2	t t n	t	D1	, ,	2	(D	D	8	t n	2	, 5	, ,	, 2,
ngDn0T	((	4D	2	t D2	n	ny	5t	2	y2	2	t 5	t 5	2	, (	4	, n(
(g 20T	y8	(2	2	t n8	2	Dn	5,	2	44	n	t (	t 8	2	5D	, t	, (y
SudM	, Dn	5t (	2	**n(t**	8	, t t	t t 2	2	**5, t**	t n	n,	n8	2	**t t 2**	(8	**yy,**
***) COuMr**	D5 7t*	n(5*	2*	**h**	h	(n 7t*	5D5*	2*	**h**	h	D t5*	n, 7t*	2*	**h**	h	h
***SudM**	, D3t*	5t 3*	2*	**n(7 t***	h	, t 5*	t t 7 t *	2*	**5, 7D***	h	n 2 *	n 8*	2*	**t t 7 t ***	h	h
01 %	2 (, n	2 7t 5	h	**2 8 8 4**	h	2 7 4 4	2 8 ay	h	**2 8(4**	h	2 8t 4	2 8, D	h	**2 8, 2**	h	2 3, (
i dbrcs MdHT uou-vav9Fs	, Dn	52n	2	**nn2**	h	, 2t	t t 2	2	**5 t t**	h	Dy	n(	2	**t 2n**	h	y((
***i dbrcs MdHT uou-vav9Fs**	t 22*	y(7h*	2*	**y 8 72***	h	yn 7 5*	t 22*	2*	**y(3)***	h	y D3*	y(7 *	2*	**yn 2h***	h	y4 D*
1 FMdu	2	2	2	**2**	h	t	2	2	**t**	h	2	2	2	**2**	h	t
***1 FMdu**	2*	2*	2*	**2***	h	2 7h*	2*	2*	**2 5***	h	2*	2*	2*	**2***	h	2 1*
Bdcav9Fs ue RuMB	2	t t	2	**t t**	h	y	2	2	**y**	h	5	,	2	**n**	h	, n
***Bdcav9Fs ue RuMB**	2*	5 7h*	2*	**, 72***	h	D5*	2*	2*	**, 8***	h	n 8*	5 D*	2*	**Dh***	h	, 7h*
0FHFscdMds	h	h	h	h	8	h	h	h	h	t 5	h	h	h	h	n8	
* 0FHFscdMds	h	h	h	h	t 22*	h	h	h	h	8(7t*	h	h	h	h	8n 5*	h
Bdcav9Fs ue C-usswMl	h	h	h	h	2	h	h	h	h	,	h	h	h	h	t 2	
* Bdcav9Fs ue C-usswMl	h	h	h	h	2*	h	h	h	h	t 5 5*	h	h	h	h	t D1*	h

[1]0FHFscdMds MdHBdcav9Fs ue C-usswMl 7i gi Fbr3RgRdbrc3SgSr -P3WgWdSP-e

5566814 - COVID - QUEEN ELIZABETH DRWY @ PRI... - TMC

Mon May 9, 2022
PM Peak (May 09 2022 5-65PM) O65 PMv) r l eHuuPeak AoCH
s uuLuiiei (gIt dd anB MoonHRyRuei , Aeal y, PeBeidHuni , wHRyRuei on moaB, wHRyRuei on
LHiiiI aukv
s uuMol eDenci
:4 - 919630, goRadon- 15.10631,)35.O70837



Ottawa
Phil lBeBby- Lhty of r ccal a
600 Loni ceuadon 4 H
Nepean, r N, K2G 5J9, Ls

5566814 - COVID - QUEEN ELIZABETH DRWY @ PRI... - TMC

Tue May 3, 20, 00
F M l eaL nMay 3, 0, 00 30F M g3 F Mt
F Ih(In66e6 rr A916aP) MCICsi yi he62d eaoy2l e) e6ksAaP62r Ayi he6 CP c Ca) 2r Ayi he6 CP
(sCB6HalhLr
F IhMCdev eP16
BRwkmk31 , 2: Cl a1KPwmD4m 3I m2gJ D78, 518

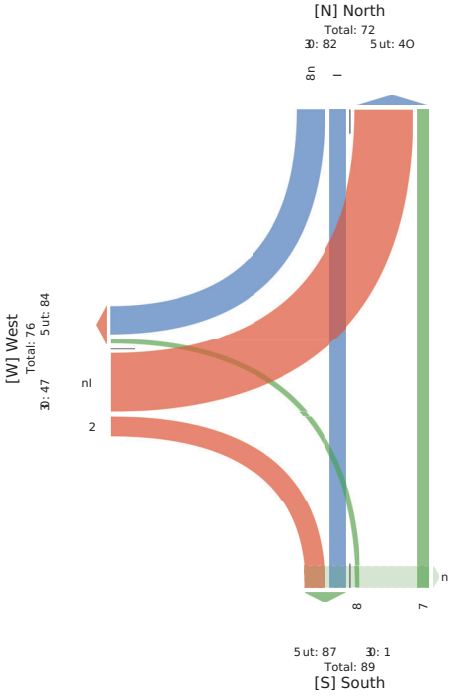
Ottawa
l sCnA e) . yw(Ay Cb f 1haHa
3, , (CP6lelhn1KP Rs2
OeNeaP2f O2p 0K DXk2(F

: e- RAei 1KP	OCsI9 J CuI9. CuP)					J Cu19 OCsI9. CuP)					E e6l Sa6L CuP)					
TAr e	c	T	W	F NN	l e) U	T	:	W	F NN	l e) U	c	:	W	F NN	l e) U	EP1
0, 00g Dg3, 30w , F M	8	5	,	33	.	5	,	,	5	.	m	31	,	03	.	5D
30aIDF M	m	5	,	I	.	3	3	,	0	0	m	k	,	35	.	00
TCIah	30	7	,	38	.	m	3	,	D	0	8	07	.	5m	.	DI
* F NNsCaI 9	774 *	554*	, *	g	g	8, 4 *	0, 4 *	, *	g	g	054D*	174D*	, *	g	g	g
* TCIah	034*	3, 4D*	, *	534*	g	I 4 *	34I*	, *	84I*	g	3n4 *	nD6*	, *	DI4*	g	g
I d %	, 4I D	. 4I ,	g	, 4n k	g	, 455	, 40I1	g	, 4n8I	g	, 4I ,	, 480	g	, 4n D	g	, 4n I
: A916aP) MCICsi yi he6	30	7	,	38	g	m	3	,	D	g	8	07	.	5m	g	DI
* : A916aP) MCICsi yi he6	3, , *	3, , *	, *	3, , *	g	3, , *	3, , *	, *	3, , *	g	3, , *	3, , *	, *	3, , *	g	3, , *
d eaoy	.	.	.	,	g	.	.	.	,	g	.	.	.	,	g	.
* d eaoy	, *	, *	, *	, *	g	, *	, *	, *	, *	g	, *	, *	, *	, *	g	, *
r Ayi he6 CP c Ca)	.	.	.	,	g	.	.	.	,	g	.	.	.	,	g	.
* r Ayi he6 CP c Ca)	, *	, *	, *	, *	g	, *	, *	, *	, *	g	, *	, *	, *	, *	g	, *
I e) e6ksAaP6	g	g	g	g	.	g	g	g	g	0	g	g	g	g	.	
* I e) e6ksAaP6	g	g	g	g	g	g	g	g	g	3, , *	g	g	g	g	g	g
r Ayi he6 CP (sCB6HalL	g	g	g	g	.	g	g	g	g	.	g	g	g	g	.	
* r Ayi he6 CP (sCB6HalL	g	g	g	g	g	g	g	g	g	, *	g	g	g	g	g	g

[1] I e) e6ksAaP6 aP) r Ayi he6 CP (sCB6HalhL4: w: ebl2c wc A 9 I2TwI9su2WwWgTusP

5566814 - COVID - QUEEN ELIZABETH DRWY @ PRI... - TMC

Tue May 3, 20, 00
AM Peak (May 3, 0, 00 30AM 83 AM:
A-- 9 -a))e) (l GLi) agh Mt it ndyd-e)2o ear y2Pehe)in@g)2c G(yd-e) t g Ht ah2c G(yd-e) t g
9 nt))v a-k:
A-- Mt r eB egi)
RwmI DI 34, 2I t daiC gmD732) 34D28475 6, 146



Ottawa
Pnt r Cieh bym9 Gy t f Oiiav a
3, , 9 t g)ie--aiC g wn2
Nepeag2ON2K0G 7JI 29 A

5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

T ue T M 3, 2, ,
0Fll Lnegth (6:A2 - T 9I, : A2 P T)
P ll ClMksns (Lights Mcd T utucrar lns3c nMIh3- ndnstciMks3v irar lns ue BuM3v irar lns ue
CcussRMw)
P ll T uHnk nets
nI : yDI A643LurMtiue: 6D2%yD8394D856148

Ottawa
- cuHdnd . a: Cita ubf ttNRM
122 CuestnllMtiue I c3
OnNnM3f O3p , K DGy3CP

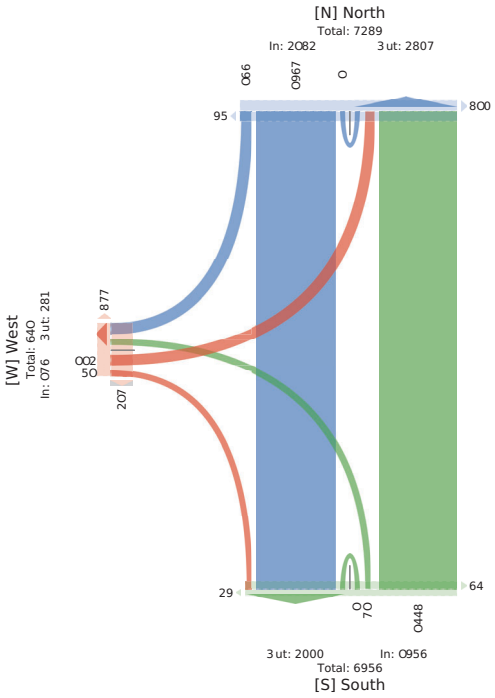
Lng I ionrtiue	Ouoth J uFth. uFed					J uFth Ouoth. uFed					E nst SMt. uFed				
Wk n	B	W	U	P NN	- nd*	W	L	U	P NN	- nd*	B	L	U	P NN	- nd*
, 2, , 9I D2y 6:22- T	D8	AAy	2	Ay D	AD	AD4	11	2	A85	1A	6	68	2	D2	y,
D22- T	4A	6yy	2	D4,	DD	84D	15	2	8yA	, D	4	42	2	44	114
8:22- T	65	D21	2	D6y	66	64y	12	1	6y2	, A	11	65	2	Dy	y8
4:22- T	, D	6A2	1	6D8	1,	625	5	2	618	1,	A	14	2	, 2	88
5:22- T	15	AAA	2	ADI	18	A44	8	1	A56	12	A	12	2	1A	A5
y:22- T	, D	66,	1	685	D	A12	4	2	At4	1,	y	, ,	2	At	Dy
12:22- T	4	, 8,	2	, 8y	2	14A	,	2	14D	,	A	D	2	5	1D
11:22- T	,	1, 1	2	1, A	2	5A	2	2	5A	2	,	6	2	8	4
, 2, , 9I D82 1, :22P T	1	, y	2	A2	2	1y	2	2	1y	2	2	1	2	1	,
WtM	, DD	, yD8	,	A, 1A	, 16	, 551	8,	,	, y6D	y4	6,	, , A	2	, 8D	6y,
% P NNuMh	43%	y, 2%	27%	9	9	y45%	, 7%	27%	9	9	1D5%	567 %	2%	9	9
% WtM	62%	682%	2%	D22%	9	665%	12%	2%	6D6%	9	27%	AD%	2%	67%	9
Lights Mcd T utucrar lns	1y6	, 524	1	A22,	9	, 4, D	82	,	, 454	9	6,	, 24	2	, 6y	9
% Lights Mcd T utucrar lns	4871%	yD2%	D22%	yA6%	9	y67%	y875%	122%	y67%	9	122%	y, 75%	2%	y672%	9
c nMh	2	84	1	85	9	64	1	2	65	9	2	1	2	1	9
% c nMh	2%	, 2%	D22%	, 7%	9	178%	178%	2%	178%	9	2%	276%	2%	276%	9
v irar lns ue BuM	81	5,	2	16A	9	12y	1	2	112	9	2	1D	2	1D	9
% v irar lns ue BuM	, A5%	, 75%	2%	6D3%	9	A5%	178%	2%	A9%	9	2%	87%	2%	D8%	9
- ndnstciMks	9	9	9	9	1y8	9	9	9	9	5y	9	9	9	9	6AA
% - ndnstciMks	9	9	9	9	y178%	9	9	9	9	y175%	9	9	9	9	552%
v irar lns ue CcussRMw	9	9	9	9	15	9	9	9	9	5	9	9	9	9	Dy
% v irar lns ue CcussRMw	9	9	9	9	576%	9	9	9	9	57, %	9	9	9	9	1, 2%

*- ndnstciMks Mcd v irar lns ue CcussRMw7L: Lnht3B: Bight3W WhoF3U: U9WFce

5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

Mon May 9, 2022
Full Length (4:30 PM-12:30 AM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 95134. , Location: 456957, -. 567841. 7

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

T ue T M 1 y3, 2, ,
0T 0FM 1T M 2y , 2, , ng 20T h(g 2 0T 6h: AF-M90FM 1 uP-
) 9lC9MsFs Ii dbr cs M4HT uu-vav9Fs31 FMa30FHFsedMs3Bdvav9Fs ue RuMBBdvav9Fs ue C-usswM16
) 9lT uAFk Fecs
nl gy(D1n43i uvMduegn(7 y(83h4(785nD48

0-uAHFH. agCda ub: ctMvM
D22 CuesdP9Mdue I -3
f FOFM3: f 3N, p (l4C3C)

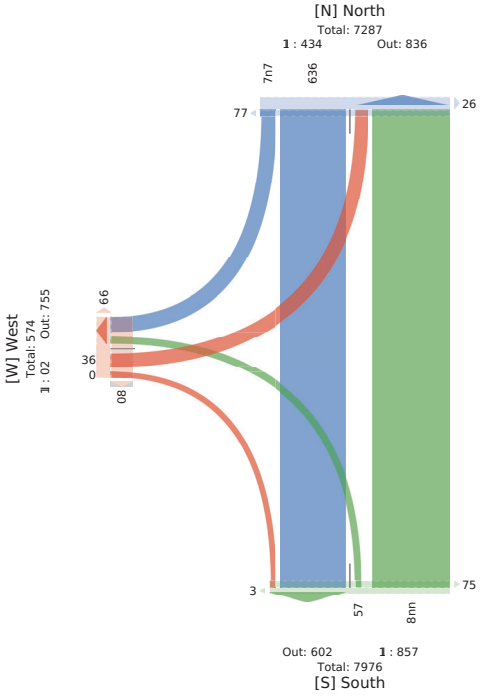
i Fo I dFvcdue	f u-cr CuPcr. uPeH				CuPcr f u-cr. uPeH				J Fsc EMc uPeH				
Sdc F	R	S	W	) CO	0FHL	S	i	W	) CO	0FHL	R	i	W	) CO	0FHL mc
, 2, , h2(h2y ng 20T	, 4	D4,	2	**Dyy**	Dn	D58	(	2	**DyD**	4	D	, (	2	**, 8**	nt **nD8**
ngp(0T	, y	DB4	2	**Dy8**	, D	D4D	8	2	**D44**	8	t	, D	2	**, n**	ny **t y4**
(gl 20T	DB	D: 4	2	**D(t**	y	DB5	D	2	**DBy**	D	2	Dy	2	**Dy**	, y **t nD**
(gl 0T	, y	D2y	2	**D: 5**	D	D4(	y	2	**D5n**	8	(	, 2	2	**, (**	t D **t n4**
SudM	D2D	(5(	2	**858**	(8	422	, D	2	**4, D**	, 2	y	5(	2	**yn**	D! , **D! 2D**
***) COuMr**	Dn7I*	5(7 *	2*	**h**	h	y4TD*	, 7*	2*	**h**	h	y7B*	y27h*	2*	**h**	h h
*** SudM**	87I*	t y72*	2*	**n(7I***	h	n87B*	Dh*	2*	**n572***	h	27B*	(7I*	2*	**87 ***	h h
01 %	274(	25(t	h	**25(y**	h	2y82	27(5t	h	**27y8t**	h	27h(2	27y n2	h	**2752**	h 27y, 2
i dbr cs M4HT uu-vav9Fs	8,	((4	2	**8Dy**	h	88(	, D	2	**858**	h	y	4y	2	**55**	h D! yt
*** i dbr cs M4HT uu-vav9Fs**	8D h*	y(7 *	2*	**y27 ***	h	y(72*	D22*	2*	**y(7D***	h	D22*	y, 7*	2*	**yt 7B***	h y, 75*
1 FMa	2	D	2	**D**	h	4	2	2	**4**	h	2	2	2	**2**	h , 2
*** 1 FMa**	2*	, 7 *	2*	**D7y***	h	D2*	2*	2*	**D2***	h	2*	2*	2*	**2***	h D! *
Bdvav9Fs ue RuM	t y	D!	2	**(n**	h	, 5	2	2	**, 5**	h	2	8	2	**8**	h 55
*** Bdvav9Fs ue RuM**	t 57B*	, B*	2*	**47y***	h	n72*	2*	2*	**t 7y***	h	2*	47D*	2*	**87h***	h (7y*
0FHFsedMs	h	h	h	h	n5	h	h	h	h	D!	h	h	h	h	DD5
* 0FHFsedMs	h	h	h	h	5(7I*	h	h	h	h	y(72*	h	h	h	h	447B* h
Bdvav9Fs ue C-usswM	h	h	h	h	5	h	h	h	h	D	h	h	h	h	t n
* Bdvav9Fs ue C-usswM	h	h	h	h	D n7 *	h	h	h	h	(72*	h	h	h	h	, , 7h* h

L] 0FHFsedMs M4HBdvav9Fs ue C-usswM 7i gi Fbr3RgRdbr c3SgSr -P3WgWdSP-e

5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

Mon May 9, 2022
PM Peak (May 09 2022 5-60PM) O60 PMv) r l eHauPeak AoOH
s uuLuiiei (gIt dd anB MoodHyRei, AeaI y, PeBeidHni, whRyRei on moaB, whRyRei on LHbiiI aukv
s uuMol eDenci
:4 - 9O1653, goRadon- 5O69O7,)3O785137

Phl lBeBby- Lhty of r cal a
100 Loni ceuadon 4 H
Nepean, r N, K2G OJ9, Ls



5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

Tue May 3, 20, 00
F M l eaL nMay 3, 0, 00 30F M g3 F Mt
F lh(lnG6e6 π A9I6aP) MCICsi yi he62d eaoy2l e) e6lsAlP62r AyiI he6 CP c Ca) 2r AyiI he6 CP
(sCBGHalLt
F lhMCoev eP16
BRwkm3I D42: Cl a1ACPwDm3I km82g4m3B5D348

lsCoA e) . yw(Ay Cb f 1laHa
3, , (CP6leHm1ACP Rs2
OeNeaP2f O2p 0K mCk2(F

: e- RAei 1ACP	OCs9 J Cu9. CuP)					J Cu9 OCs9. CuP)					E e6l Sa6L CuP)					
TAv e	c	T	W	F NN	l e) U	T	:	W	F NN	l e) U	c	:	W	F NN	l e) U	BP1
0, 00g ng3, 30w, F M	3	38	,	**34**	.	k	,	.	**k**	.	,	,	.	**,**	.	**08**
30 wknF M	,	3I	,	**3I**	.	3,	,	.	**3,**	.	,	3	,	**3**	0	**0D**
TCIah	3	0k	,	**I,**	.	3k	,	.	**3k**	.	,	3	,	**3**	0	**m**
*** F NNaCal 9**	I 7I *	k87I*	, *	**g**	g	3, , *	, *	, *	**g**	g	, *	3, , *	, *	**g**	g	g
*** TCIah**	07 *	n57 *	, *	**8, 7 ***	g	I 57 *	, *	, *	**I 57 ***	g	, *	07 *	, *	**07 ***	g	g
l d %	. 7bm	. 7I 5	g	**, 7D8**	g	. 7Dlm	g	g	**. 7Dlm**	g	g	. 7bm	g	**, 7bm**	g	. 7D83
: A9I6aP) MCICsi yi he6	3	08	,	**04**	g	34	,	,	**34**	g	,	3	,	**3**	g	Dm
*** : A9I6aP) MCICsi yi he6**	3, , *	5k7I*	, *	**k, 7 ***	g	5k7hf	, *	, *	**5k7hf**	g	, *	3, , *	, *	**3, , ***	g	k, 7 *
d eaoy	,	0	,	**0**	g	0	,	,	**0**	g	,	,	,	**,**	g	D
*** d eaoy**	, *	87k*	, *	**87I***	g	3, 7hf	, *	, *	**3, 7hf**	g	, *	, *	, *	**, ***	g	57 *
r AyiI he6 CP c Ca)	,	3	,	**3**	g	.	,	,	**,**	g	.	,	,	**,**	g	3
*** r AyiI he6 CP c Ca)**	, *	I 7D*	, *	**I 7I ***	g	, *	, *	, *	**, ***	g	, *	, *	, *	**, ***	g	07 *
l e) e6lsAlP6	g	g	g	g	.	g	g	g	g	.	g	g	g	g	0	
* l e) e6lsAlP6	g	g	g	g	g	g	g	g	g	g	g	g	g	g	3, , *	g
r AyiI he6 CP (sCBGHalL	g	g	g	g	.	g	g	g	g	.	g	g	g	g	.	
* r AyiI he6 CP (sCBGHalL	g	g	g	g	g	g	g	g	g	g	g	g	g	g	, *	g

L] l e) e6lsAlP6 aP) r AyiI he6 CP (sCBGHalL7: w. ebI2c wc A 9 I2T wI9su2WwWgTusP

5566814 - COVID - BANK ST @ AYLMER AVE - MAY... - TMC

Tue May 3, 20, 00
AM Peak (May 3, 0, 00 30AM 83 AM:
A-- 9 -a))e) (l GLi) agh Mt it ndyd-e)2o ear y2Pehe)in(ag)2c G(yd-e) t g Ht ah2c G(yd-e) t g 9 rt))v a-k:
A-- Mt r eBegi)
Rwml D84752l t dai(£gm7D4l D628SD617356

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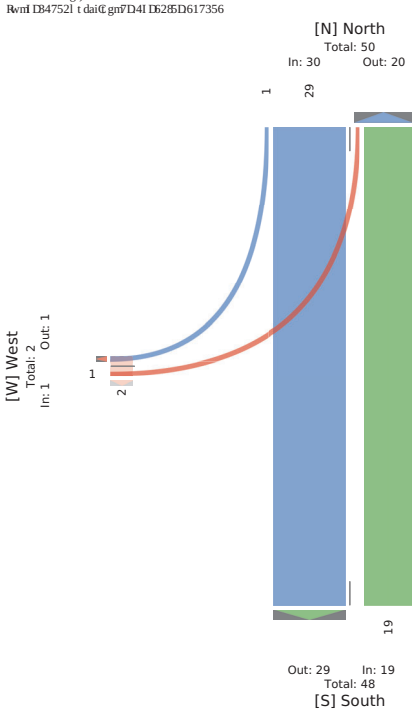
Pnt r (leh bym9 Gy t f Oiiav a
3, , 9 t g)ie--ai(£g wn2
Nepeag2ON2K0G DfI 29 A



5566814 - COVID - BANK ST @ ECHO DR - MAY 09... - TMC

T ue T M y3, 2, ,
0FIl Lnegth (6:A2 - T 9l, :A2 P T)
P ll ClMsns (Lights Md T utu rarlns3c nMlb3- ndnstciMs3v irarlns ue BuMl3v irarlns ue CoussRMlw)
P ll T uHnk nets
nh : yDLA6y3Lur Mlue: 6DAyDf8y39BD676AA6

Ottawa

- cuHdnd . a: Cita ubf tNRM
122 CuestnllMlue I ci3
OnNnM3f O3p , K Dfy3CP

Lng I iontiue	Ouoth EuFth. uFed								J Mt S nst. uFed								EuFth Ouoth. uFed								S nst J Mt. uFed							
Wk n	B	W	L	U	P NN	- nd*			B	W	L	U	P NN	- nd*			B	W	L	U	P NN	- nd*			B	W	L	U	P NN	- nd*		
, 2, , 9RDBy 6:22- T	2	A7,	6	2	A75	1			7	2	A	2	11	8y			5	Ay8	2	2	62A	2			18	2	2	2	18	DA	718	
D22- T	2	8A6	1D	2	86y	2			A,	A	6	2	Ay	152			11	85,	2	2	88A	2			A5	1	6	2	61	1A	152,	
5:22- T	1	DAy	1A	2	DDA	7			7	2	,	2	12	, A6			D	856	2	2	85y	1			6,	2	1	2	6A	1, 7	1A8D	
8:22- T	2	DA1	12	2	D61	A			1,	2	A	2	1D	, , ,			5	DAy	2	2	D6D	1			, 2	2	8	2	, 8	127	11, 7	
7:22- T	2	66y	D	1	6DD	D			A	2	1	2	6	y7			D	617	2	2	6, A	1			7	,	1	2	11	5y	7yA	
y:22- T	1	AD	D	2	AD7	A			5	2	D	2	11	5D			5	A76	2	2	Ay2	2			y	2	1	2	12	D8	85y	
12:22- T	1	66A	6	2	667	,			7	2	6	2	1,	, y6			5	A6D	2	2	ADI	A			7	2	1	2	y	yA	7, 2	
11:22- T	2	, y6	1	2	, yD	2			2	2	2	2	2	AD			2	18,	2	2	18,	2			D	2	1	2	5	1A	68A	
, 2, , 9RDB2 1, :22P T	2	58	2	2	58	2			2	2	,	2	,	16			1	D6	2	2	DD	2			2	2	2	2	2	y	1, 6	
WtrM	A	A8y1	D8	1	A7D	, ,			88	A	, 6	2	126	1, 25			65	A7AD	2	2	A771	5			16D	A	15	2	156	55,	7221	
% P NNuMh	24 %	y74 %	14D%	2%	**9**	9			864 %	, 4 %	, A4 %	2%	**9**	9			14 %	y74 %	2%	2%	**9**	9			774 %	14 %	y4 %	2%	**9**	9	9	
% WtrM	2%	684 %	24 %	2%	**674 %**	9			14 2%	2%	24 %	2%	**14 %**	9			24 %	684 %	2%	2%	**674 %**	9			14 7%	2%	24 %	2%	**, 4 %**	9	9	
Lights Md T utu rarlns	2	A6y7	6,	1	**AD61**	9			6y	2	, 6	2	**8A**	9			, A	A61A	2	2	**A5A5**	9			1AD	2	8	2	**16,**	9	8Ay,	
% Lights Md T utu rarlns	2%	y, 4%	8A8%	122%	**y14 %**	9			5A6 %	2%	122%	2%	**824 %**	9			D42 %	y64 %	2%	2%	**yA8 %**	9			yA4 %	2%	6A4 %	2%	**754 %**	9	y, 4%	
c nMh	2	86	1	2	**8D**	9			1	2	2	2	**1**	9			2	D8	2	2	**D8**	9			2	2	2	2	**2**	9	1 AA	
% c nMh	2%	, 4%	14 %	2%	**14 %**	9			14 8%	2%	2%	2%	**14 %**	9			2%	14 3%	2%	2%	**14 3%**	9			2%	2%	2%	2%	**2%**	9	14 %	
vir arlns ue BuMl	A	, 1y	16	2	**, A5**	9			, 8	A	2	2	**A2**	9			, A	15D	2	2	**177**	9			12	A	y	2	**, ,**	9	685	
% vir arlns ue BuMl	122%	D8 %	, 64 %	2%	**54 %**	9			AD8 %	122%	2%	2%	**, 74 %**	9			D42 %	64 %	2%	2%	**64 %**	9			54 %	122%	D4 %	2%	**1A6 %**	9	DA %	
- ndnstciMs	9	9	9	9	9	, 2			9	9	9	9	9	11y,			9	9	9	9	9	5			9	9	9	9	9	56y		
% - ndnstciMs	9	9	9	9	9	y24 %			9	9	9	9	9	y74 %			9	9	9	9	9	122%			9	9	9	9	9	y74 %	9	
v ir arlns ue CoussRMlw	9	9	9	9	9	,			9	9	9	9	9	16			9	9	9	9	9	2			9	9	9	9	9	1A		
% v ir arlns ue CoussRMlw	9	9	9	9	9	y4 %			9	9	9	9	9	14 %			9	9	9	9	9	2%			9	9	9	9	9	, 4%	9	

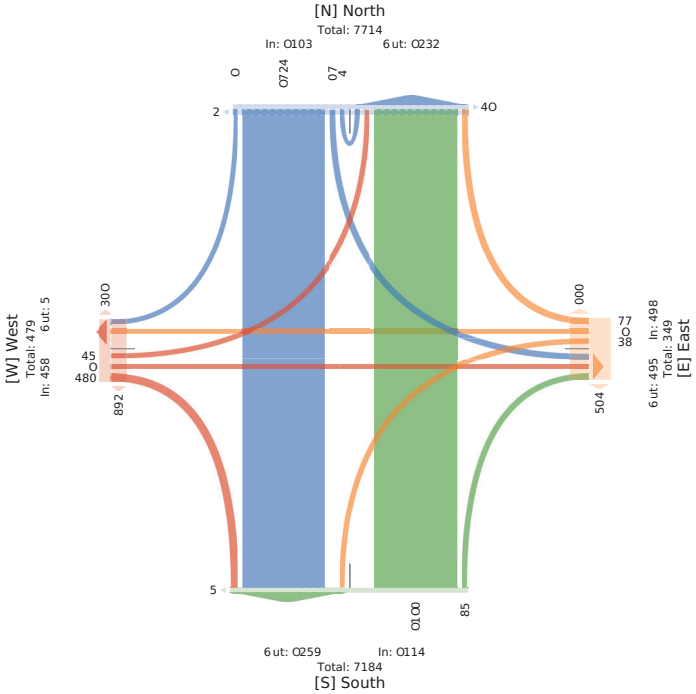
*- ndnstciMs Md v ir arlns ue CoussRMw4L: Lnht3B: Bight3W WhcF3U: U9WFoe

5566814 - COVID - BANK ST @ ECHO DR - MAY 09... - TMC

Mon May 9, 2022
Full Length (4:30 PM-12:30 AM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 951349, Location: 45.395679, -75.864334

Ottawa

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5566814 - COVID - BANK ST @ ECHO DR - MAY 09... - TMC

T ue T M y3, 2, ,
0T 0FMl LT M4 2y , 2, , ng 20T h(g 2 0T 6h: AF-M90FMl 1 uP-
) 9IC9MsIS li dbr cs M4HT uu-vav9Fs 31 FMa30HFIscdMs3Bdcav9Fs ue RuMlBBdcav9Fs ue C-usswMl 6
) 9IT uAFk Fecs
nh gy(Dt ny3i uvMdiegn(4 y(78y3hB(457nt t n

Ottawa

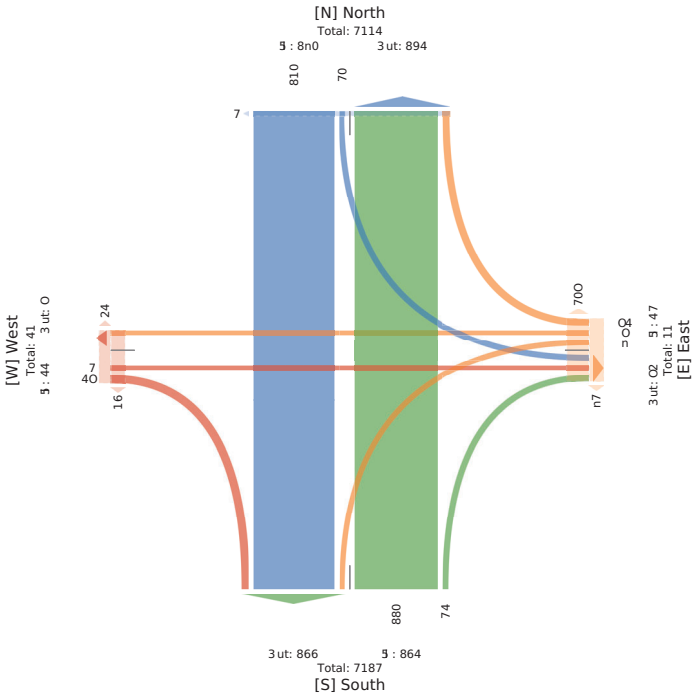
0-uAdHFH. agCda ub: cuMvM
D22 CuescP9Mdue I -3
f FCFM3: f 3N, p (I4y3C)

i Fo I dFvohe	f u-cr JuPcr . uPeH								GMc E Fsc uPeH								JuPcr f u-cr . uPeH								E Fsc GMc uPeH							
Sdc F	R	S	i	W	) CO	0FHU			R	S	i	W	) CO	0FHU			R	S	i	W	) CO	0FHU			R	S	i	W	) CO	0FHU		
, 2, , I2(I2y ng 20T	2	DIn	t	2	**DI8**	D			(	2	D	2	**5**	nn			D	Dy8	2	2	**Dy7**	2			y	2	2	2	**y**	, ,	**t y2**	
ng n(0T	2	, 27	D	2	**, 2y**	2			t	2	,	2	**(**	t (			(	, 22	2	2	**, 2(**	2			7	2	2	2	**7**	t D	**n, 8**	
(g220T	2	DI'5	n	2	**Dy2**	2			DI	,	D	2	**Di**	t D			t	DyD	2	2	**Dyn**	2			5	2	2	2	**5**	, y	**n2t**	
(gD 0T	2	DI',	,	2	**DIn**	2			(	2	,	2	**8**	(t			n	DI',	2	2	**DI'5**	2			y	D	2	2	**DI**	Dy	**t 78**	
SudM	2	8(2	DI	2	**852**	D			, t	,	5	2	**t D**	DIt			Di	882	2	2	**87t**	2			t ,	D	2	2	**t t**	DID	**DI28**	
***) COuMr**	2*	y74 *	DI *	2*	**h**	h			8n4 *	54(*	Dy4u*	2*	**h**	h			DI8*	y74 *	2*	2*	**h**	h			y842*	t 42*	2*	2*	**h**	h	h	
*** SudM**	2*	n54*	24*	2*	**n84 ***	h			DIu*	24I*	24u*	2*	**DIy***	h			24I*	n84y*	2*	2*	**n74***	h			, 42*	24I*	2*	2*	**, 4I***	h	h	
01 %	h	24 mt	24nt	7	h	**24y(,**	h		24I'Dt	h	24n(2	h	**24y,**	h			24nD8	24 85	h	h	**24'58**	h			24'5D	h	h	h	**24'5D**	h	24y5(	
i dbr cs M4HT uu-vav9Fs	2	58,	8	2	**58y**	h			Dt	2	5	2	**Dy**	h			(	8D8	2	2	**8, ,**	h			t D	2	2	2	**t D**	h	Dt(D	
*** i dbr cs M4H T uu-vav9Fs**	2*	7y5*	824*	2*	**7y4 ***	h			(54 *	2*	DI2*	2*	**5Dt ***	h			t 74 *	yt 4I*	2*	2*	**y, 4 ***	h			y54*	2*	2*	2*	**yt 4***	h	y24 *	
1 FMa	2	DI'	2	2	**DI'**	h			2	2	2	2	**2**	h			2	Dt	2	2	**Dt**	h			2	2	2	2	**2**	h	t D	
*** 1 FMa**	2*	, 4*	2*	2*	**, 4***	h			2*	2*	2*	2*	**2***	h			2*	D8*	2*	2*	**D8***	h			2*	2*	2*	2*	**2***	h	D4*	
BdcavSFs ue RuMl	2	52	t	2	**5t**	h			DI	,	2	2	**Dt**	h			7	n2	2	2	**n7**	h			D	D	2	2	**,**	h	Dt (	
*** BdcavSFs ue RuMl**	2*	74*	t 24*	2*	**74 ***	h			nt 4 *	DI2*	2*	2*	**t 74***	h			5Dt *	(4 *	2*	2*	**54D***	h			t 4D*	DI2*	2*	2*	**54D***	h	84*	
0FHFsc-dMs	h	h	h	h	h	D			h	h	h	h	h	DSt			h	h	h	h	h	2			h	h	h	h	h	y7		
* 0FHFsc-dMs	h	h	h	h	h	DI2*			h	h	h	h	h	DI2*			h	h	h	h	h				h	h	h	h	h	y84*		
BdcavSFs ue C-usswMl	h	h	h	h	h	2			h	h	h	h	h	2			h	h	h	h	h	2			h	h	h	h	h	t		
* BdcavSFs ue C-usswMl	h	h	h	h	h	2*			h	h	h	h	h	2*			h	h	h	h	h				h	h	h	h	h	t 4*		

*0FHFsc-dMs M4HBdcavSFs ue C-usswMl 4i gi Fbz3RgRcbr c3SgSr -P3WgWlSP-e

5566814 - COVID - BANK ST @ ECHO DR - MAY 09... - TMC

Mon May 9, 2022
PM Peak (May 09 2022 5-60PM) O60 PMv) r l eHuuPeak AoCH
s uuLuuiiei (gltddi anB MoonHRyRuei, Aeal y, PeBeidHuni, wHRyRuei on moaB, wHRyRuei on
LHiiiI aukv
s uuMol eDenci
:4 - 9Ol659, goRadon- 5O69O 79,)7OB. 5665



Phl lHeBby- Lhty of r caI a
100 Loni ceuadon 4 H
Nepean, r N, K2G OI9, Ls

5566814 - COVID - BANK ST @ ECHO DR - MAY 09... - TMC

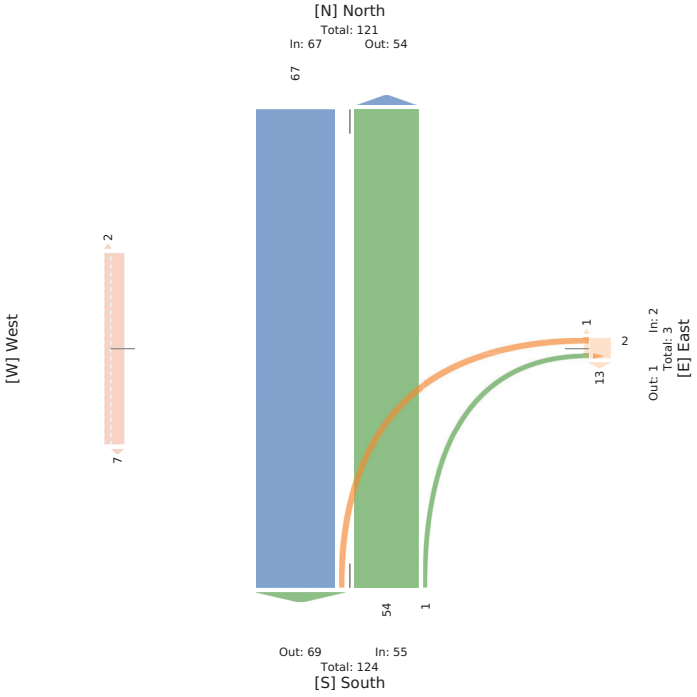
Tue May 3, 20, 00
F M l eaL nMay 3, 0, 00 30F M g3 F Mt
F Hh(hn66e6 rr A916aP) MCOSi yi he62d eaoy2l e) e6ksAPG2r Ayi he6 CP c Ca) 2r Ayi he6 CP
(sCB6HalhLr
F HhMCOev ePI6
BRwkm3I Dk2: Cl a1KPwDmI km78k2g8m67DI I D

: e- RAei 1AP	OCn9 ECn9. CuP)					J a61 S e61. CuP)					ECn9 OCn9. CuP)					S e61 J a61. CuP)					
TAr e	c	T	W	F NN	l e) U	c	T	W	F NN	l e) U	c	T	W	F NN	l e) U	c	T	W	F NN	l e) U	BP1
0, 00g mg3, 30w, F M	,	07	,	**07**	.	,	,	3	,	**3**	3	,	Im	,	**Im**	.	,	,	,	,	D	**5D**
30kmF M	,	Ik	,	**Ik**	.	,	,	3	,	**3**	3I	3	3k	,	**0,**	.	,	,	,	,	m	**5,**
TCbh	,	58	,	**58**	.	,	,	0	,	**0**	3D	3	nD	,	**nnn**	.	,	,	,	,	k	**30D**
*** F NNCai 9**	, *	3, , *	, *	**g**	g	, *	, *	3, , *	, *	**g**	g	34*	k74O*	, *	, *	**g**	g	, *	, *	, *	**g**	g
*** TCbh**	, *	nDi *	, *	**nDi ***	g	, *	, *	34*	, *	**34***	g	, 4*	DI4nr	, *	, *	**DDIO'**	g	, *	, *	, *	, *	g
l d %	g , 4388		g	g , **4388**	g	g	g , 4n,		g , **4n,**	g	, 4mq	, 4 75		g	g , **4 kl**	g	g	g	g	**g**	g	, 4kk0
: A9I6aP) MCOSi yi he6	,	50	,	**50**	g	,	,	0	,	**0**	g	3	n0	,	**nl**	g	,	,	,	,	g	338
*** : A9I6aP) MCOSi yi he6**	, *	k04nr	, *	, * **k04nr**	g	, *	, *	3, , *	, *	**3, , ***	g	3, , *	k54 *	, *	, *	**k54O'**	g	, *	, *	, *	**g**	g	kDD'
d eaoy	,	I	,	**I**	g	,	,	,	,	**,**	g	,	0	,	**0**	g	,	,	,	,	g	m
*** d eaoy**	, *	DInr	, *	**DInr**	g	, *	, *	, *	, *	**, ***	g	, *	14I*	, *	**14***	g	, *	, *	, *	, *	**g**	g	DI *
r Ayi he6 CP r Ca)	,	0	,	**0**	g	,	,	,	,	**,**	g	,	,	,	**,**	g	,	,	,	,	g	0
*** r Ayi he6 CP r Ca)**	, *	14 *	, *	**14 ***	g	, *	, *	, *	, *	**, ***	g	, *	, *	, *	**, ***	g	, *	, *	, *	, *	**g**	g	34*
l e) e6ksAP6	g	g	g	g	.	g	g	g	g	g	3D	g	g	g	g	.	g	g	g	g	k	
* l e) e6ksAP6	g	g	g	g	g	g	g	g	g	g	3, , *	g	g	g	g	g	g	g	g	g	3, , *	g
r Ayi he6 CP (sCB6HalhL	g	g	g	g	.	g	g	g	g	g	.	g	g	g	g	.	g	g	g	g	.	
* r Ayi he6 CP (sCB6HalhL	g	g	g	g	g	g	g	g	g	g	, *	g	g	g	g	g	g	g	g	g	, *	g

[L] l e) e6ksAP6 aP) r Ayi he6 CP (sCB6HalhL4: w. eb12c wc A 912TwI'9su2WwWgTusP

5566814 - COVID - BANK ST @ ECHO DR - MAY 09... - TMC

Tue May 3, 20, 00
AM Peak (May 3, 0, 00 30AM 83 AM:
A-- 9 -a))e) (l GLi) agh Mt it ndyd-e)2o ear y2Pehe)in@g)2c Gdyd-e) t g Ht ah2c Gdyd-e) t g
9 nt))v a-k:
A-- Mt r eB egi)
RwnI B47I 2l t dai£ gn7D4I D 61 26D1. 7447



Pnt r Cheh bym9 Gy t f Oiiav a
3, , 9 t g)ie--ai£ g wn2
Nepeag2ON2K0G DIl 29 A

5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

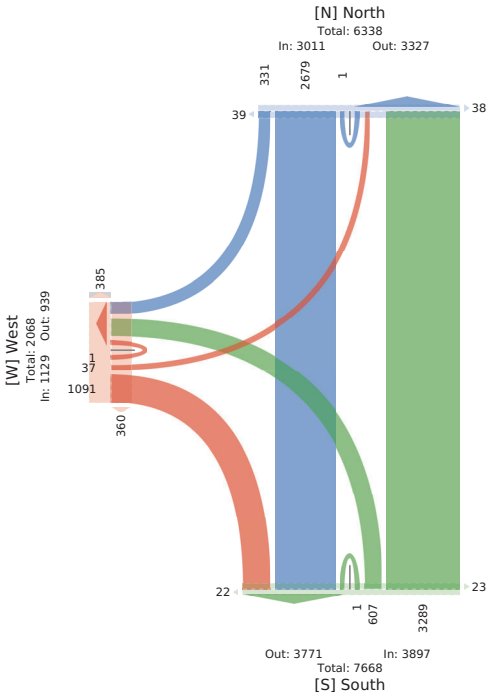
T ue T M 1 y3, 2, ,
0Fll Lnegth (6:A2 - T 9I, : A2 P T)
P ll ClMksns (Lights Mcd T utucr ar lns 3c nMHh 3- ndnstciMcs 3v ir ar lns ue BuMc 3v ir ar lns ue
CcussRMw)
P ll T uHnk nets
nh : yDI ADH 3Lur Mcue: 6D2%888, 3981D54D62D

Lng I ionrtiue Wk n	Ouoth JuFth. uFed					JuFth Ouoth. uFed					E nst SMt. uFed					
	B	W	U	P NN	- nd*	W	L	U	P NN	- nd*	B	L	U	P NN	- nd*	mt
, 2, , 9ZD02y 6:22- T	, y	, 6,	2	**, 81**	2	A28	y,	2	**Ayy**	.	1, D	A	2	**1, 4**	61	**8y4**
D22- T	DA	655	2	**Dly**	1	5A4	1Ay	2	**888**	.	, 52	D	2	**, 5D**	168	**1D51**
5:22- T	D6	A6,	1	**Ay8**	16	562	116	2	**8D6**	5	14y	4	2	**1y8**	15y	**1A64**
8:22- T	D8	A62	2	**618**	16	688	y,	2	**Dby**	1,	18D	8	1	**14A**	1AA	**115y**
4:22- T	A2	A6,	2	**A8,**	A	A6,	5A	2	**6, D**	6	12A	6	2	**128**	8,	**y26**
y:22- T	, ,	, 88	2	**, yy**	D	A6D	65	2	**Ay1**	6	8y	6	2	**4A**	Dl	**88A**
12:22- T	Dy	AD1	2	**612**	A6	A12	6A	2	**ADA**	1,	y4	,	2	**122**	111	**45A**
11:22- T	, 1	, A4	2	**, Dy**	2	1D5	1D	2	**181**	A	D5	1	2	**D8**	16	**648**
, 2, , 9ZD02 1, :22P T	5	51	2	**58**	5	D6	A	1	**D4**	2	5	A	2	**y**	8	**1A6**
WctM	AA1	, 58y	1	**A211**	88	A, 4y	528	1	**Aby8**	6D	12y1	A8	1	**11, y**	86D	**42A8**
% P NNuMh	112%	4y2%	2%	**9**	9	467.6%	1D5%	2%	**9**	9	y5?.5%	A2%.	2?1%	**9**	9	9
% WctM	67.%	AA2%.	2%	**A2D%**	9	62?.%	8?5%	2%	**64?D%**	9	1A5%	2D%	2%	**162%**	9	9
Lights Mcd T utucr ar lns	A 1	, 646	1	**, 425**	9	A28y	Dy8	1	**A588**	9	12, D	, 8	1	**12DA**	9	8D6
% Lights Mcd T utucr ar lns	y82%	y, 8%	122%	**yA2 %**	9	yA25%	y47.6%	122%	**y67.6%**	9	y62%	8A2%	122%	**yA2%**	9	yA2%
c nMh	1	8D	2	**85**	9	DA	A	2	**D5**	9	,	1	2	**A**	9	1AD
% c nMh	2?8%	, 4%	2%	**, D%**	9	1?.5%	2D%	2%	**1?.5%**	9	2?.%	, 8%	2%	**2?8%**	9	1?8%
v ir ar lns ue BuMd	y	1, 2	2	**1, y**	9	1D8	8	2	**156**	9	56	y	2	**8A**	9	A65
% v ir ar lns ue BuMd	, 8%	6D%	2%	**62%**	9	67.4%	1?.%	2%	**67.%**	9	D4.%	, 67%	2%	**5D%**	9	6?5%
- ndnstciMcs	9	9	9	9	88	9	9	9	9	61	9	9	9	9	8, 1	
% - ndnstciMcs	9	9	9	9	122%	9	9	9	9	y1?1%	9	9	9	9	y5?4%	9
v ir ar lns ue CcussRMw	9	9	9	9	2	9	9	9	9	6	9	9	9	9	, 6	
% v ir ar lns ue CcussRMw	9	9	9	9	2%	9	9	9	9	43.%	9	9	9	9	A2.%	9

*- ndnstciMcs Mcd v ir ar lns ue CcussRMw7L: Lnh:3B: Bight3W WhoF3U: U9WFce

5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

Mon May 9, 2022
Full Length (4:30 PM-12:30 AM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 95135. , Location: 456397772, -7568. 5405



Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA

5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

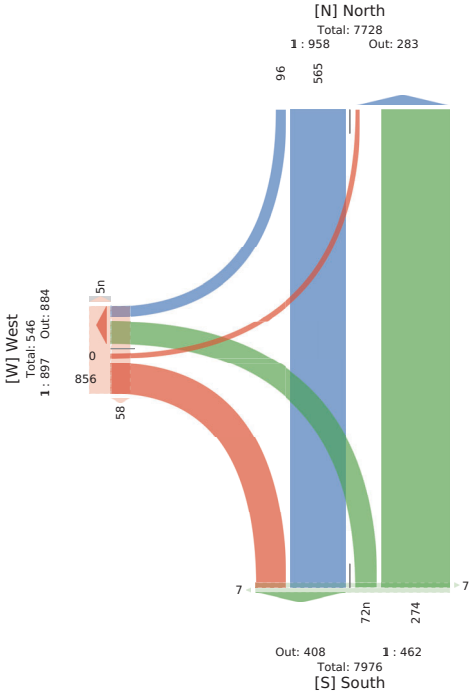
T ue T M 1 y3, 2, ,
0T 0FM 1 LT M 2y , 2, , ng 20T h(g 2 0T 6h: AF-M90 FM 1 uP-
) 9IC9MdsFs Ii dbr cs M4HT uau-vav9Fs31 FMa30 FHFsed Mds3Bdcav9Fs ue RuMBBdcav9Fs ue C-usswM16
) 9IT uAFk Fecs
ni gy(D1 (43i uvMduegn(7t y888, 3h8(754(n2(

i Fo I dFvcdue	f u-cr GuPcr . uPeH				GuPcr f u-cr . uPeH				J Fsc EMc uPeH				
Sdc F	R	S	W	) CO 0FHL	S	i	W	) CO 0FHL	R	i	W	) CO 0FHL	mc
, 2, , h2(h2y ng 20T	D	DD	2	D (2	D(,	n4	2	, 22	((	D	2	(5	t 4D
ngs(0T	DB	D y	2	Dn5	D((	nn	2	Dyy	82	,	2	8,	nDB
(g220T	D	D y	2	D(,	D62	nt	2	, 2t	(5	2	2	(5	nDD
(gD 0T	D5	DEt	2	DDy	D(2	t n	2	Dtn	58	2	2	58	t 82
SucM	(4	n4n	2	(n,	5DB	D5y	2	845	, n4	t	2	, (D	yD D(8y
*) COuMr	DE'B*	4y'1 *	2*	h	84'(*	, D(*	2*	h	y4'1*	D(*	2*	h	h
* SucM	t 'B*	t 2'B*	2*	t n'1 *	t y'D'	D E'B*	2*	ny'1*	D('B*	2'(*	2*	D('y*	h
01 %	2'1, n	2'18n	h	2'1y,	2'y'5(	2'182	h	2'y'55	2'18D	2'1 8(	h	2'1t	2'y'5.
i dbr cs M4HT uau-vav9Fs	(5	nn2	2	ny5	(55	D55	2	8t ,	, t 2	t	2	, t t	Dn5D
* i dbr cs M4HT uau-vav9Fs	y5'5*	y2'y*	2*	y D(*	yD B*	y4'(*	2*	yt D'	y, 'B*	D E2*	2*	y, 1*	y, '(*
1 FMa	2	D4	2	D4	y	D	2	D E	2	2	2	2	, 4
* 1 FMa	2*	t 'B*	2*	t 'I *	D(*	2'5*	2*	D I *	2*	2*	2*	2*	D4*
Bdcav9Fs ue RuM	,	, 5	2	, 4	n,	,	2	nn	D4	2	2	D4	y2
* Bdcav9Fs ue RuM	t 'n*	('n*	2*	('I *	57t*	D(*	2*	('5*	8'1 *	2*	2*	8'I *	('B*
0 FHFsed Mds	h	h	h	h 2	h	h	h	h	D	h	h	h	4(
* 0 FHFsed Mds	h	h	h	h h	h	h	h	h (2'I2*	h	h	h	h	yt 'n* h
Bdcav9Fs ue C-usswM	h	h	h	h 2	h	h	h	h D	h	h	h	h	5
* Bdcav9Fs ue C-usswM	h	h	h	h h	h	h	h	h (2'I2*	h	h	h	h	5'5* h

[1] 0 FHFsed Mds M4HBdcav9Fs ue C-usswM 7i gi Fbc3RgRdbr c3SgSr -P3WgWfSP-e

5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

Mon May 9, 2022
PM Peak (May 09 2022 5-60PM) O60 PMv) r l eHuuPeak AoOH
s uuLuuiei (gIt dd anB MoooHByRuei , Aeal y, PeBeidHuni , wHyRuei on moaB, wHyRuei on LHbiiI aukv
s uuMol eDenci
:4 - 9OI6OB, goRadon- 5Q697772,)7Q83O50O



Phl lBeBby- Lhty of r cal a
100 Loni cuadon 4 H
Nepean, r N, K2G OI9, Ls

5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

Tue May 3, 20, 00
F M l eaL nMay 3, 0, 00 30F M g3 F Mt
F hn(ln66e6 π A9I6aP) MCICsi yi he62d eaoy2l e) e6ksAPG2r AyiI he6 CP c Ca) 2r AyiI he6 CP
(sCI6GHalLt
F hnMCoev eP16
BRwkm3I mL2: Ci a1CPw4m3I k88802g8m75Dm4, m

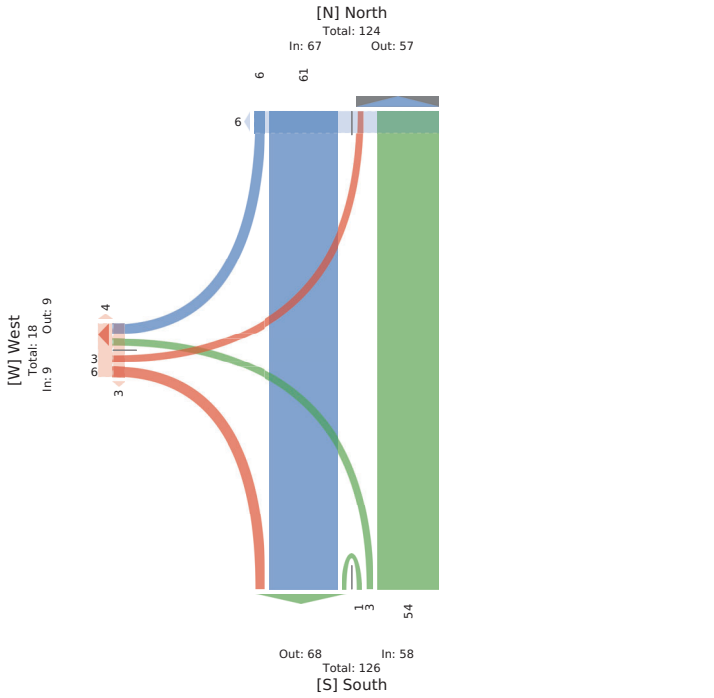
: e- RAei 1CP	OGs9 J Cu9. CuP)				J Cu9 OGs9. CuP)				E e6i Sa6i CuP)				
TAv e	c	T	W	F NN	l e) U	T	:	W	F NN	l e) U	c	:	W	F NN	l e) U EP1
0, 00g ng3, 30w, F M	4	0I	,	08	,	I m	I	3	I k	,	I	0	,	m	m 83
30w nF M	0	I D	,	4,	5	3k	,	,	3k	,	I	3	,	4	0 5I
TCIah	5	53	,	58	5	m	I	3	nD	,	5	I	,	k	8 3I4
* F NNCai 9	k7 *	k3'7 *	, *	g	g	kI 'B*	n0*	'3B*	g	g	55'B*	I I'1 *	, *	g	g g
* TCIah	4'nf	4n'nf	, *	m 'I *	g	4, 'I *	0'D*	, 'B*	4I 'I *	g	4'nf	0'D*	, *	5'B*	g g
I d %	, 'I 8m	, 'I DD	g	, 'I, 5	g	, 'I k,	, 'Dm	, 'Dm	, 'I 8m	g	, 'Dn,	, 'Dm	g	, 'I I D	g , 'I Dk
: A9I6aP) MCICsi yi he6	5	n6	,	50	g	n8	I	3	nn	g	5	3	,	8	g 30d
* : A9I6aP) MCICsi yi he6	3, , *	k3'D*	, *	k0'nf	g	k4'D*	3, , *	3, , *	k4'D*	g	3, , *	I I'1 *	, *	88'D*	g k0'nf
d eaoy	,	I	,	I	g	0	,	,	0	g	,	,	,	,	g m
* d eaoy	, *	4'k*	, *	4'nf	g	I 'B*	, *	, *	I 'I*	g	, *	, *	, *	, *	g I 'B*
r AyiI he6 CP c Ca)	,	0	,	0	g	3	,	,	3	g	,	0	,	0	g m
* r AyiI he6 CP c Ca)	, *	I 'I *	, *	I 'I *	g	3'k*	, *	, *	3'B*	g	, *	55'B*	, *	0D'D*	g I 'B*
l e) e6ksAP6 aP)	g	g	g	g	5	g	g	g	g	,	g	g	g	g	m
* l e) e6ksAP6	g	g	g	g	3, , *	g	g	g	g	g	g	g	g	83'I*	g
r AyiI he6 CP (sCI6GHalL	g	g	g	g	,	g	g	g	g	,	g	g	g	g	0
* r AyiI he6 CP (sCI6GHalL	g	g	g	g	, *	g	g	g	g	g	g	g	g	0I D5*	g

[1] l e) e6ksAP6 aP) r AyiI he6 CP (sCI6GHalL7: w. ebI2c wc A 9 I2T wI9su2WwWgTusP

5566814 - COVID - BANK ST @ WILTON CRES - MA... - TMC

Tue May 3, 20, 00
AM Peak (May 3, 0, 00 30AM 83 AM:
A-- 9 -a))e) (l GLi) agh Mt it ndyd-e)2o ear y2Pehe)in(ag)2c Gdyd-e) t g Ht ah2c Gdyd-e) t g 9 rt))v a-k:
A-- Mt r eBegi)
Rwm1 D84D72l t dai€gn5D4l 66602865D17D5, D

Ottawa
Pnt r Gieh bym9 Gy t f Oiiav a
3, , 9 t g)ie--ai€g wn2
Nepeag2ON2K0G DfI 29 A



5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC

T ue T M 1 y3, 2, ,
0Fll Lnegth (6:A2 - T 9l, :A2 P T)
P ll CIMdsns (Lights Mcd T utucrarlns3c nMth3- ndnstciMds3v irarlns ue BuMd3v irarlns ue CoussRMdw)
P ll T uHnk nets
nh : yDLA413LurMdue: 6D2%yy62A398D745418

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- cuHdnd . a: Cita ubf ttMRM
122 CuestnllMdue I c3
OnNnM3f O3p , K DGy3CP

Lng I ionrtiue	Ouath EuFth. uFed						JMt S nst. uFed						EuFth Ouath. uFed						
Wkn	W	L	U	PNN	- nd*		B	L	U	PNN	- nd*		B	W	U	PNN	- nd*	
, 2, , 92D02y 6:22- T	A26	A	2	**A28**	,		DD	1	2	**Dt**	186		4	, A5	2	**, 66**	y	**428**
D22- T	D42	,	2	**Dt,**	A		1, 6	2	2	**1, 6**	6y8		1y	D21	2	**D, 2**	11	**1, 24**
4:22- T	686	1	2	**68D**	2		152	2	2	**152**	566		62	D21	2	**D51**	18	**11y4**
8:22- T	65,	D	2	**658**	1		, 2y	A	2	**, 1,**	441		Ay	616	2	**6DA**	1,	**11D**
5:22- T	6A8	2	2	**6A8**	6		54	A	1	**y2**	A26		11	AA5	2	**A6y**	1A	**584**
y:22- T	A15	2	2	**A15**	6		y4	D	2	**121**	1DA		16	A24	2	**A, 2**	6	**8Ay**
12:22- T	A81	2	2	**A81**	2		1DD	D	2	**142**	515		, y	A56	1	**616**	8	**y6D**
11:22- T	154	2	2	**154**	2		8,	,	2	**86**	44		12	, 1A	2	**, , A**	A	**65A**
, 2, , 92D02 1, :22P T	42	2	2	**42**	6		, 4	1	2	**, 8**	, ,		4	DD	1	**4,**	1	**16y**
WtcM	A1y,	11	2	**A, 2A**	15		122A	, 2	1	**12, 6**	AD%y		186	, yD2	,	**A1, 4**	88	**8ADA**
% PNNuMh	yy78%	27%%	2%	**9**	9		y87%	, 2%%	27%	**9**	9		D8%	y676%	27%	**9**	9	9
% WtcM	6A66%	27%	2%	**6A2%**	9		1A7%	27%%	2%	**1A%%**	9		, %%	6271%	2%	**6, D%**	9	9
Lights Mcd T utucrarlns	A2, y	4	2	**A2AD**	9		y5,	, 2	1	**122A**	9		182	, 844	1	**, y48**	9	4y8D
% Lights Mcd T utucrarlns	y67y%	D6D%	2%	**y675%**	9		y87%	122%	122%	**y87%%**	9		y878%	yA5%	D22%	**y672%**	9	y67%
c nMth	8A	2	2	**8A**	9		6	2	2	**6**	9		2	D5	2	**D5**	9	1AD
% c nMth	, 7%%	2%	2%	**, 7%%**	9		276%	2%	2%	**276%**	9		2%	, 72%	2%	**17%%**	9	175%
v irarlns ue BuMd	y2	D	2	**yD**	9		18	2	2	**18**	9		6	1, 4	1	**1A1**	9	, 6A
% v irarlns ue BuMd	, 75%	6DD%	2%	**A2%%**	9		178%	2%	2%	**178%**	9		, 7%%	67%%	D22%	**67, %**	9	A2%%
- ndnstciMds	9	9	9	9	14		9	9	9	9	AD, 2		9	9	9	9	88	
% - ndnstciMds	9	9	9	9	55y%		9	9	9	9	yy7D%		9	9	9	9	122%	9
v irarlns ue CoussRMdw	9	9	9	9	,		9	9	9	9	1y		9	9	9	9	2	
% v irarlns ue CoussRMdw	9	9	9	9	117%		9	9	9	9	27D%		9	9	9	9	2%	9

*- ndnstciMds Mcd v irarlns ue CoussRMdw7L: Lnht3B: Bight3W WhoF3U: U9WFce

5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC

Mon May 9, 2022
Full Length (4:30 PM-12:30 AM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 9513. 1, Location: 456899403, -756 8. 17

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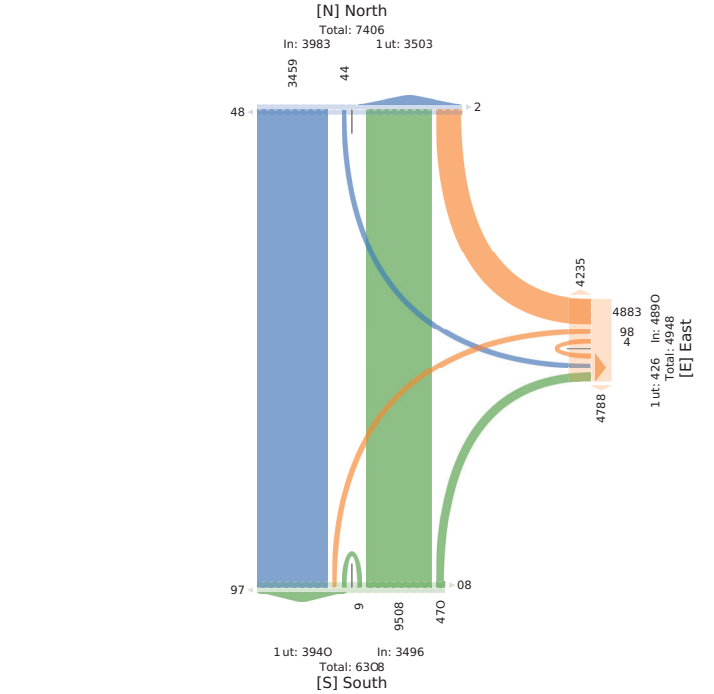
Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC

T ue T M 1 y3, 2, ,
0T 0FM LT M 2y , 2, , ng 20T 6h: A%M90FM 1 uP-
) 9hC9MdsFs Ii dbrcs MdHT uu-vav9Fs31 FMa30FHFscdMds3Bdcav9Fs ue RuMBBdcav9Fs ue C-usswM6
) 9hT uAFk Fecs
nh gyDHt n43i uvMdueg7DH yy72t 3h(DHn5n4(

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0-uAdHFH. agCda ub: ccMvM
422 CuesdP9Mdue I -3
f FOFM3: f 3N, p DKy3C)

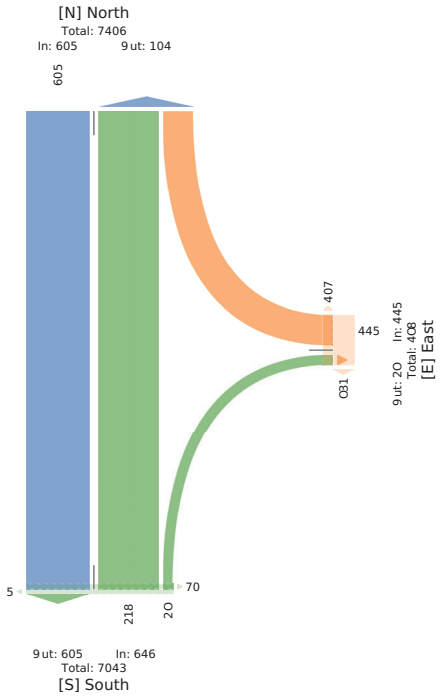
i Fo I dHvedue	f u-cr JuPcr. uPeH						GMc E Fsc uPeH						JuPcr f u-cr. uPeH					
Sdc F	S	i	W	) CO	0FHL		R	i	W	) CO	0FHL		R	S	W	) CO	0FHL	inc
, 2, , h2D02y ng 20T	472	2	2	**472**	2		D	2	2	**Dt**	, 4(		4,	4, 2	2	**4t ,**	,	**t , D**
ng'D0T	444	2	2	**444**	2		Dy	2	2	**Dy**	, D4		4,	4t ,	2	**477**	,	**t 47**
(g'20T	447	2	2	**447**	2		D	2	2	**Dt**	, D4		4,	4, t	2	**4t D**	5	**t 2,**
(gtD0T	4t 5	2	2	**4t 5**	2		D5	2	2	**D5**	4ny		42	427	2	**447**	4	**t 42**
SucM	Dt	2	2	**Dt**	2		, , t	2	2	**, , t**	555		7n	7(y	2	**D, D**	4t	**4, Dt**
***) COuMr**	422*	2*	2*	**h**	h		422*	2*	2*	**h**	h		58*	y48 *	2*	**h**	h	h
*** SucM**	728 *	2*	2*	**728 ***	h		4(8*	2*	2*	**4(8***	h		t 8(*	t 58 *	2*	**7, 82***	h	h
0 1 %	28yn	h	h	**28yn**	h		28yD	h	h	**28yD**	h		28yt 5	28y2	h	**28y7**	h	28y(4
i dbrcs MHT uu-vav9Fs	754	2	2	**754**	h		, , 4	2	2	**, , 4**	h		7D	7D2	2	**7yD**	h	44y(
*** i dbrcs MHT uu-vav9Fs**	yDh*	2*	2*	**yDh***	h		yy8*	2*	2*	**yy8***	h		y(8*	yt 8(*	2*	**y78 ***	h	yD(*
1 FMa	42	2	2	**42**	h		2	2	2	**2**	h		2	y	2	**y**	h	4y
*** 1 FMa**	, 82*	2*	2*	**, 82***	h		2*	2*	2*	**2***	h		2*	48(*	2*	**48(***	h	48Y
BdcavFs ue RuMB	4,	2	2	**4,**	h		,	2	2	**,**	h		4	, 2	2	**, 4**	h	t D
*** BdcavFs ue RuMB**	, 8*	2*	2*	**, 8***	h		28y*	2*	2*	**28y***	h		, 8 *	78 *	2*	**782***	h	, 85*
0FHFsc-dMds	h	h	h	h	2		h	h	h	h	55t		h	h	h	h	4t	
* 0FHFsc-dMds	h	h	h	h	h		h	h	h	h	yy8*		h	h	h	h	422*	h
BdcavFs ue C-usswM	h	h	h	h	2		h	h	h	h	D		h	h	h	h	2	
* BdcavFs ue C-usswM	h	h	h	h	h		h	h	h	h	28n*		h	h	h	h	2*	h

L0FHFsc-dMds MHBdcavFs ue C-usswM 8i gi Fbc3RgRdbrc3SgSr-P3WgWfSP-e

5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC

Mon May 9, 2022
PM Peak (May 09 2022 5-60PM) O60 PMv) r l eHuuPeak AoCH
s uuLuiiei (gIt ddi anB MoonRyRei, Aeal y, PeBeidani, wRyRei on moaB, wRyRei on
LHiiiI aukv
s uuMol eDenci
:4 - 913653, goRadon- . 17699. 06,)O1Z8853O

Ottawa
Phil lBeBby- Lhty of r caI a
300 Loni ceuadon 4 Hj
Nepean, r N, K2G 1J9, Ls



5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC

Tue May 3, 20, 00
F M l eaL nMay 3, 0, 00 30F M g3 F Mt
F Ih(In66e6 r A916 aP) MCICsi yi he62d eaoy2l e) e6ksAlP62r Ayi he6 CP c Ca) 2r Ayi he6 CP
(sCB6HahLr
F IhMCdev eP16
BRwkm3I D32: Cl a1KPw4m3I kk4, I 2g8m3I5D88

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l sCoA e) . yw(Ay Cbf IlaHa
3, , (CP6lelhn1KP Rs2
OeNeaP2f O2p 0K nCk2(F

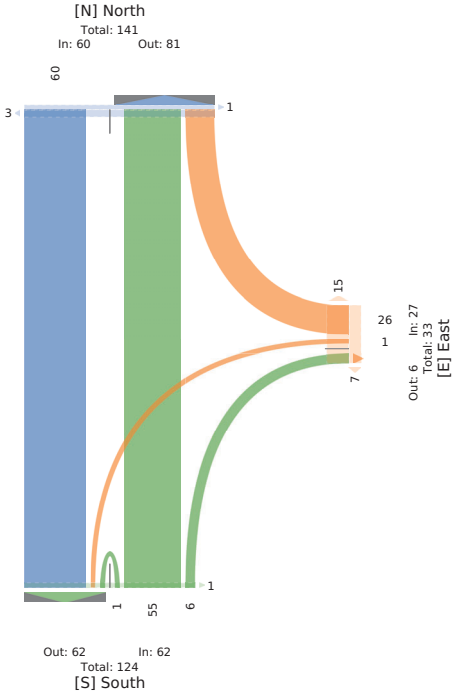
: e- RAei 1KP	OCa19 ECu19. CuP)					J a61 S e6L CuP)					ECu19 OCa19. CuP)					
TAv e	T	:	W	**F NN**	1 e) U	c	:	W	**F NN**	1 e) U	c	T	W	**F NN**	1 e) U	**BP1**
0, 00g ng3, 30w, F M	I I	,	,	**I I**	3	35	,	,	**35**	31	4	I 8	3	**40**	3	**kI**
30wlmF M	08	,	,	**08**	I	5	3	,	**k**	k	0	35	,	**0,**	,	**nD**
TCIah	Ij	,	,	**Ij**	4	0D	3	,	**08**	00	D	nnn	3	**DD**	3	**34k**
*** F NNCaI 9**	3, , *	, *	, *	**g**	g	kDI *	I 'B*	, *	**g**	g	k'B*	55'B*	3I'D'	**g**	g	g
*** TCIah**	4, 7 *	, *	, *	**4, 7 ***	g	38'B*	, 'B*	, *	**35'B***	g	47, *	I DIk*	, 'B*	**43'D'**	g	g
I d %	, 7ID	g	g	**, 7IDB**	g	, 7 I B	, D1q	g	**, 7 I 8m**	g	, 7 I 8m	, 7I 5D	g	**, 7 I 5m**	g	, 7133
: A9I6aP) MCICsi yi he6	nD	,	,	**nD**	g	0D	3	,	**08**	g	D	45	,	**mI**	g	3I 8
*** : A9I6aP) MCICsi yi he6**	kI 7 *	, *	, *	**kI 7 ***	g	3, , *	3, , *	, *	**3, , ***	g	3, , *	58'I *	, *	**583'B***	g	k37k*
d eaoy	I	,	,	**I**	g	,	,	,	**,**	g	,	I	,	**I**	g	D
*** d eaoy**	nI' *	, *	, *	**nI' ***	g	, *	, *	, *	**, ***	g	, *	nIhf	, *	**47'5***	g	47 *
r Ayi he6 CP r Ca)	3	,	,	**3**	g	,	,	,	**,**	g	,	4	3	**m**	g	D
*** r Ayi he6 CP r Ca)**	3'B*	, *	, *	**3'B***	g	, *	, *	, *	**, ***	g	, *	8I *	3, , *	**53'B***	g	47 *
I e) e6ksAlP6	g	g	g	g	4	g	g	g	g	00	g	g	g	g	3	
* I e) e6ksAlP6	g	g	g	g	3, , *	g	g	g	g	3, , *	g	g	g	g	3, , *	g
r Ayi he6 CP (sCB6HaIL	g	g	g	g	,	g	g	g	g	,	g	g	g	g	,	
* r Ayi he6 CP (sCB6HaIL	g	g	g	g	, *	g	g	g	g	, *	g	g	g	g	, *	g

[1] I e) e6ksAlP6 aP) r Ayi he6 CP (sCB6HaIL7: w. ebI2c wc A 9 I2TwI'9su2WwWgTusP

5566814 - COVID - BANK ST @ MARCHE WAY - MAY... - TMC

Tue May 3, 20, 00
AM Peak (May 3, 0, 00 30AM 83 AM:
A-- 9 -a))e) (I GLi) agh Mt it ndyd-e)2o ear y2Pehe)in(ag)2c Cdyd-e) t g Ht ah2c Cdyd-e) t g
9 nt))v a-k:
A-- Mt r eB egi)
RwmI B4732I t daiC gn5D4I I 5, 428 6D71736

Ottawa
Pnt r Cieh bym9 Cy t f Oiiav a
3, , 9 t g)ie--aiC g wn2
Nepeag2ON2K0G DfI 29 A



5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

T ue T Md y3, 2, ,
0FII Lnegth (6:A2 - T 9I, :A2 P T)
P ll ClMssns (Lights Md T utucr arlns3c nMih 3- ndnstciMs3v irar lns ue BuMd3v irar lns ue CoussRMdv)
P ll T uHik nets
nh : yDLA463LurMiue: 6IDPyy8y4395DI484DIA

Ottawa
- ouHdnd . a: Cita ubf ttNCM
122 CuestnllMiue I r3OnNnM3F O3p , K DIy3CP

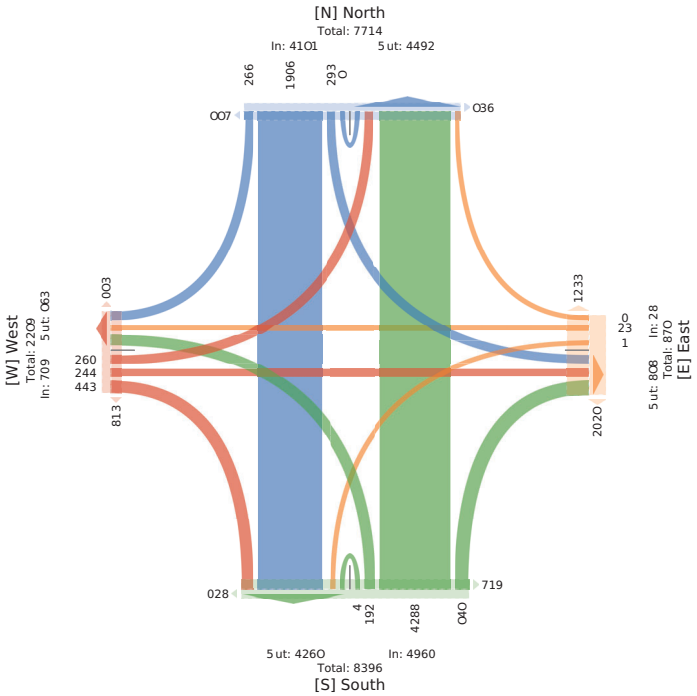
Lng I ionrtiue	Ouoth EuFth. uFed						J Mt S nst. uFed						EuFth Ouoth. uFed						S nst J Mt. uFed						
Wk n	B	W	L	U	**P NN**	- nd*	B	W	L	U	**P NN**	- nd*	B	W	L	U	**P NN**	- nd*	B	W	L	U	**P NN**	- nd*	**mt**
, 2, , 9IDIDy 6:22- T	14	, 52	5	2	**, yA**	Dj	2	2	2	2	**2**	18A	AD	, A8	AI	2	**A26**	82	AI	11	11	2	**DA**	DD	**4D2**
D22- T	AA	D6A	, 6	2	**422**	128	1	,	,	2	**D**	6y1	54	688	D2	2	**416**	142	6A	, D	A6	2	**12,**	, 2,	**1A 1**
4:22- T	, 6	61y	A6	2	**655**	, AA	,	6	2	2	**4**	5A2	128	D2y	6A	1	**441**	, I2	46	A	A2	2	**1, 4**	, 4y	**1, 52**
5:22- T	A2	A4A	AI	2	**6, 6**	1Dy	1	2	2	2	**1**	444	111	65D	6D	2	**4At**	, 22	85	A	AI	2	**1D2**	, 61	**1, 24**
8:22- T	, ,	Ayy	, 1	A	**68D**	42	1	1	2	2	**,**	A62	AD	A6,	16	2	**6, 1**	11A	AI	y	12	2	**I2**	88	**y18**
y:22- T	, A	, yA	, 8	2	**A66**	65	2	1	2	2	**1**	, AI	AA	A62	, ,	2	**AyD**	44	AI	12	14	2	**D6**	54	**5y5**
12:22- T	A8	AA8	, 4	2	**62,**	1I3	2	,	2	2	**,**	85D	, y	6, A	65	2	**6yy**	, I2	AI	y	A8	2	**58**	, y,	**yI1**
11:22- T	11	15y	5	1	**1y8**	, y	2	2	2	2	**2**	5A	D	, Dy	, 6	2	**, 88**	, 6	y	D	, ,	2	**A4**	AI	**I) ,**
, 2, , 9IDIDI 2 1, :22P T	,	DD	,	2	**Dy**	y	2	2	2	2	**2**	, 2	,	5A	D	,	**8,**	,	A	2	A	2	**4**	4	**165**
WtiMI	1yy	, 8Dy	182	6	**A 6,**	8ID	D	12	,	2	**15**	A416	6A6	AI55	, 81	A	**A8yD**	116D	AA2	1AA	1yD	2	**4DB**	1, 42	**581,**
% P NNuMh	47%	88I %	I3I%	23%	**9**	9	, y7%	DI8%	11I%	2%	**9**	9	117%	81I%	57 %	23%	**9**	9	I2I %	, 2I %	, y2%	2%	**9**	9	9
% WtiMI	, I3%	A43%	, 2%	23%	**61I3%**	9	23%	23%	2%	2%	**27 %**	9	I3I%	625%	A3%	2%	**6y3 %**	9	67 %	17.5%	, I3%	2%	**83.6%**	9	9
Lights Md T utucr arlns	1y6	, 521	158	6	**A255**	9	2	2	2	2	**2**	9	612	A264	, 55	A	**A5A4**	9	AI8	11A	1y1	2	**4, ,**	9	56AD
% Lights Md T utucr arlns	y5I3%	y6I3%	y83%	122%	**y63%**	9	2%	2%	2%	2%	**2%**	9	y6I3%	yD9%	y63%	122%	**yD9%**	9	sy45%	8I32%	y53%	2%	**y6I3%**	9	yDI %
c nMh	2	5D	2	2	**5D**	9	1	2	2	2	**1**	9	2	I D	1	2	**D4**	9	,	2	,	2	**6**	9	1A4
% c nMh	2%	, 3I%	2%	2%	**, 2I%**	9	, 22%	2%	2%	2%	**D3%**	9	2%	17.5%	2.6%	2%	**I2I%**	9	23I%	2%	12%	2%	**23I%**	9	1.5%
vir ar lns ue BuMd	D	8A	,	2	**y2**	9	, 6	I2	,	2	**14**	9	, 6	54	A	2	**12A**	9	12	, 2	,	2	**A**	9	, 61
% v ir ar lns ue BuMd	, I3%	, 3%	17.3%	2%	**, I8%**	9	822%	122%	122%	2%	**y623%**	9	DI3%	, I6%	17.3%	2%	**, 29%**	9	A2I%	I DI2%	12%	2%	**63%**	9	A23%
- ndnstciMs	9	9	9	9	9	86A	9	9	9	9	9	A6I8	9	9	9	9	9	11A2	9	9	9	9	9	1, 6,	
% - ndnstciMs	9	9	9	9	9y83%		9	9	9	9	9yy2%		9	9	9	9	9y85%		9	9	9	9	9y83%		9
v ir ar lns ue CoussRMdv	9	9	9	9	9	1,	9	9	9	9	9	,4	9	9	9	9	9	1D	9	9	9	9	9	1B	
% v ir ar lns ue CoussRMdv	9	9	9	9	9	17I%	9	9	9	9	9	27.5%	9	9	9	9	9	17I%	9	9	9	9	9	17I%	9

*- ndnstciMs Md v ir ar lns ue CoussRMdv7L: Lnht3B: Bight3W WhoF3U: U9WFœ

5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

Mon May 9, 2022
Full Length (4:30 PM-12:30 AM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 9513. 4, Location: 456 89979. , -856 7. 5. 3

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

T ue T M y3, 2, ,
0T 0FNl LT M 2y , 2, , ngnt 0T ht gnt 0T (h6 : FM4-0FNl 9 u1A
P –) -MCFCIs idorCMc T unuAlhHFC39 FMa30 FcFGAMC3v iHhHFCue BuM3v iHhHFCue
) AtCCRMl (
P – T u: FwFerC
kmgyt I D4n3s uHMiue gnt 7Dyy8y43lt6t 7l84t 4D

0Au icFc . ag) ita ub6 mNRM
122) ueGF–Mlue mAl
f FCFM36 f 3N, p t l4(3) P

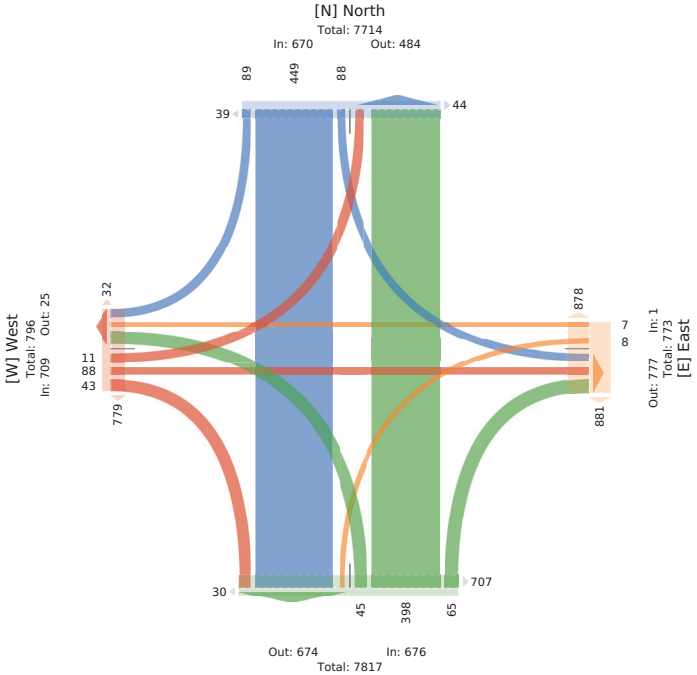
s Fd miAHHue	f uAo Julo. u lec					GMt E FCt. u lec					Ju lno f uAo. u lec					E FCt GMt. u lec					
SiwF	B	S	s	W	PCD	0FcU	B	S	s	W	PCD	0FcU	B	S	s	W	PCD	0FcU	B	S	s	W	PCD	0FcU	ler
, 2, , lt:h2y ngut 0T	y	Int	t	2	I t y	Dt	2	2	2	2	2	y5	I 4	I, n	, I	2	I 4I	, 8	I y	n	8	2	I I	, 5	D I
t g220T	n	I Dy	,	2	I nt	I y	2	2	2	2	2	yt	I n	I, t	I t	2	I t n	D5	y	,	8	2	I y	n,	D I 8
t gt t 0T	,	I, 5	t	2	I Dt	, y	2	2	2	2	2	128	I 5	I Dt	y	2	I 42	t,	I 2	n	8	2	, ,	t t	D I 4
t gt220T	I n	I n8	I 2	2	I 5,	, ,	2	I	,	2	D	I D	, 2	I 2y	I,	2	I nI	, n	I 4	I,	y	2	I 5	nD	D I D
SuM	, y	t t y	, ,	2	4I 2	I 2n	2	I	,	2	D	nD	45	ny,	t 5	2	4I 4	I nI	t n	, ,	I D	2	I 2y	I 45	I I D 8
* P CDAMb	n7I*	y I 7I*	I D I*	2*	h	h	2*	I D I D*	44 7 5*	2*	h	h	I 2 7*	5y 7*	y I D*	2*	h	h	n y 7 *	, 2 7 *	I E D D*	2*	h	h	h
* SuM	, 7 *	n I 7I*	I 7I*	2*	nt 7I*	h	2*	27I*	27I*	2*	27, *	h	t 7I*	D4 7I*	n I D*	2*	n42*	h	n 2*	I 7I*	, 7 *	2*	87I *	h	h
09 %	27 I 8	27 y t ,	27 t 2	h	27 by2	h	h	h	h	h	h	h	27 y nI	27 y2,	27 45	h	27 y nD	h	27 5, ,	27 22	27 y I 5	h	27 5t 5	h	27 y t 5
s idorCMc T unuAlhHFC	, y	t I t	, ,	2	t 44	h	2	2	2	2	2	h	4n	n45	t 4	2	t 85	h	t 2	I 8	D I	2	yy	h	I, t,
* s idorCMc T unuAlhHFC	I 22*	y, 7I *	I 22*	2*	y, 7I*	h	2*	2*	2*	2*	2*	h	y t 7I *	yn 7y*	y 87 *	2*	yt D I*	h	y, 7I*	8I 7I*	y D y*	2*	y 2 8*	h	y D I 4*
9 FMa	2	I 8	2	2	I 8	h	2	2	2	2	2	h	2	y	2	2	y	h	,	2	,	2	n	h	D I
* 9 FMa	2*	D I, *	2*	2*	D I 2*	h	2*	2*	2*	2*	2*	h	2*	I 7I*	2*	2*	I 7 *	h	D5*	2*	47I *	2*	D5*	h	, D I*
v iHhHFCue BuM	2	, 4	2	2	, 4	h	2	I	,	2	D	h	D	I 4	I	2	, 2	h	,	n	2	2	4	h	t t
* v iHhHFCue BuM	2*	n7 5*	2*	2*	n7D*	h	2*	I 22*	I 22*	2*	I 22*	h	n7 *	D I D*	I 7I*	2*	D I *	h	D5*	I 8 7 *	2*	2*	t 7 *	h	n7 *
0FcFGAMC	h	h	h	h	h	I 2D	h	h	h	h	h	nD	h	h	h	h	h	I Dn	h	h	h	h	h	I 4t	
* 0FcFGAMC	h	h	h	h	hyy'2*	h	h	h	h	h	hyy7*	h	h	h	h	h	hyt 'Z*	h	h	h	h	h	h	h	
v iHhHFCue) AtCCRMl	h	h	h	h	h	I	h	h	h	h	h	n	h	h	h	h	h	5	h	h	h	h	h	,	
* v iHhHFCue) AtCCRMl	h	h	h	h	h	I 2*	h	h	h	h	h	2 7 *	h	h	h	h	h	t 2*	h	h	h	h	h	I 7 *	h

[1] 0FcFGAMCMc v iHhHFCue) AtCCRM 7s gs Fb3BgBidor3SgSoA13WgWt6 1Ae

5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

Mon May 9, 2022
PM Peak (May 09 2022 5-56PM) 6-56 PMO) v r elaHHPeak u oAl
CHHs laILeL.(i ght dLanc Modl ByHHL, u ear y, PeceLdgnL, RgBy HdLon woac, RgBy HdLon
s loILmaRO
CHHMor el endL
D - 964135, i oEadgn- 56.199793,)86.373631

Plor g ec by- s gly of v dhma
400 s onLdHHdgn : l,
Nepean, v N, K2G 6J9, s C



5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

Tue May 3, 20, 00
F M l eaL nMay 3, 0, 00 30F M g3 F Mt
F Ih(lnG6e6 π A9I6aP) MCICsi yi he62d eaoy2l e) e6ksAlP62r AyiIhe6CP c Ca) 2r AyiIhe6CP
(sCBGHalLt
F IhMCoev eP16
BRwkm3I D42: Ci a1ACPw4m3I kk8kD2g5m3D8DnD1

0Au icFc . ag) ita ub6 mNRM
122) ueGF–Mlue mAl
f FCFM36 f 3N, p t l4(3) P

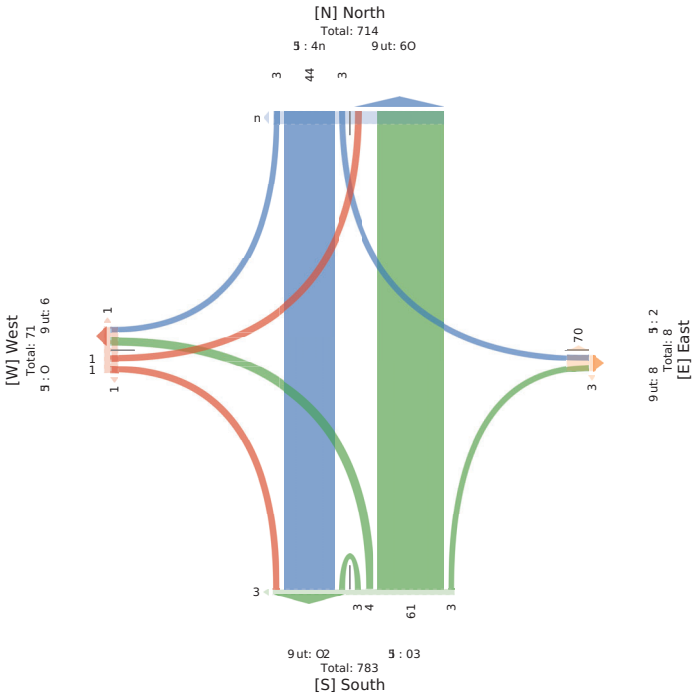
: e- RAei 1ACP	OGt9 ECu9. CuP)					J a6l S e6l CuP)					ECu9 OGt9. CuP)					S e6l J a6l CuP)					
TAr e	c	T	:	W	F NN l e) U	c	T	:	W	F NN l e) U	c	T	:	W	F NN l e) U	c	T	:	W	F NN l e) U	BP1
0, 00g mg3, 30w, FM	0	I 3	,	,	I I	D	,	,	,	,	33	0	44	m	3	m0	,	0	,	I	,	m	m	k,
30 aInFM	,	04	0	,	0D	I	,	,	,	,	k	,	0k	,	3	I,	0	3	,	,	,	3	3	m5
TCIah	0	mn	0	,	nk	k	,	,	,	,	0.	0	5I	m	0	80	0	I	,	I	,	D	D	345
* FNNCai 9	I 7I*	kI 7I*	I 7I*	, *	g	g	*	*	*	*	g	g	07I*	8k7 *	I 3I*	07I*	g	m 7 *	, *	m 7 *	, *	g	g	g
* TCIah	37I*	I 57I*	37I*	, *	4, 7I*	g	*	*	*	*	*	g	37I*	4k75*	I 7I*	37I*	mI8*	g	07 *	, *	07 *	, *	47I*	g	g
I d %	, 7Dm	, 7Amq	, 7Dm	g	, 7AD	g	g	g	g	g	g	g	, 7Dm	, 2I05	, 7Dm	, 7n,	, 7A, I	g	, 7 I5m	g	, 7Dmq	g, 7I , ,		g	2I38
: A9I6aP) MCICsi yi he6	3	mB	0	,	mI	g	,	,	,	,	,	g	0	D5	m	0	5D	g	I	,	I	,	D	g	3I D
* : A9I6aP) MCICsi yi he6	k0 7 *	k0 7 5*	3, ,	*	, * k37nr	g	*	*	*	*	g	g	3, , *	k37I*	3, ,	*	k0 75*	g	3, , *	3, ,	*	3, , *	k0 7nr	g	
d eaoy	,	I	,	,	I	g	,	,	,	,	,	g	,	I	,	,	I	g	,	,	,	,	,	g	D
* d eaoy	, *	nIhr	, *	, *	mI3*	g	*	*	*	*	*	g	, *	47I*	, *	, *	I 75*	g	, *	, *	, *	, *	, *	g	47I*
r AyiIhe6CP c Ca)	3	3	,	,	0	g	,	,	,	,	,	g	,	I	,	,	I	g	,	,	,	,	,	g	m
* r AyiIhe6CP c Ca)	n 7 *	37I*	, *	, *	I 7I*	g	*	*	*	*	*	g	, *	47I*	, *	, *	I 75*	g	, *	, *	, *	, *	, *	g	I 7I*
! e) e6ksAlP6	g	g	g	g	g	k	g	g	g	g	g	0,	g	g	g	g	g	0	g	g	g	g	g	D	
* ! e) e6ksAlP6	g	g	g	g	g	g3, , *	g	g	g	g	g	g3, , *	g	g	g	g	g	g3, , *	g	g	g	g	g	g3, , *	g
r AyiIhe6CP (sCBGHalL	g	g	g	g	g	,	g	g	g	g	g	,	g	g	g	g	g	,	g	g	g	g	g	,	
* r AyiIhe6CP (sCBGHalL	g	g	g	g	g	, *	g	g	g	g	g	, *	g	g	g	g	g	, *	g	g	g	g	g	, *	g

[1] e) e6ksAlP6aP) r AyiIhe6CP (sCBGHalL7: w: ebl2c wc A 9 I2TwT9su2WwWgTusP

5566814 - COVID - BANK ST @ HOLMWOOD AVE - M... - TMC

Tue May 3, 20, 00
AM Peak (May 3, 0, 00 30AM 83 AM:
A-- 9 -a))e) (gh (6Li) agh Mt it ndyd-e)2o ear y2Pehe)in(ag)2c (dyd-e) t g Ht ah2c (dyd-e) t g 9 rt))v a-k:
A-- Mt r eBegi)
Rwm1 D84752l t dai(gn5D4I I 6l 728lD767D74

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5566814 - COVID - QUEEN ELIZABETH DRWY @ FIF... - TMC

T ue T M 1 y3, 2, ,
0Fll Lnegth (6:A2 - T 9l, : A2 P T)
P ll CIMdsns (Lights Mcd T utuorar lns3c nMth3- ndnstoiMds3v irar lns ue BuMd3v irar lns ue CoussRMdv)
P ll T uHnk nets
nh : yDlA473LurMdue: 6D62Ay, 1395D847 1y56

Provided by: City of Ottawa
122 Cuestnll Mdue I o3
OnNnM3f O3p , K DGy3CP

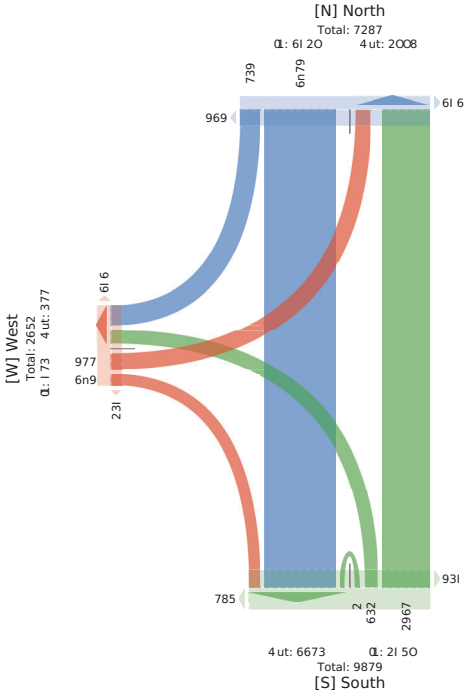
Lng I ionrtiue	Ouath J uFth. uFed				JuFth Ouath. uFed				E nst SMit. uFed				
Wk n	B	W	U	P NN	- nd*	W	L	U	P NN	- nd*	B	L	U	P NN	- nd*	int
, 2, , 92D82y 6:22- T	A2	, A7	2	**, 47**	DA	y2	, 4	2	**114**	55	1D	, 2	2	**AD**	, 4	**61y**
D:22- T	yA	D24	2	**Dyy**	11D	, 14	41	2	**, 55**	152	, 5	64	2	**5A**	5D	**y6y**
4:22- T	1, 4	6, 5	2	**DDA**	117	1yy	D	2	**, D**	, 25	A7	D	2	**y6**	y4	**7y7**
5:22- T	117	, 15	2	**AAD**	11y	1y4	DA	2	**, 6y**	15A	64	56	2	**1, 2**	7y	**526**
7:22- T	A6	, 1y	2	**, DA**	4y	164	14	2	**14,**	5D	1y	A2	2	**6y**	D	**646**
y:22- T	, 7	145	2	**1yD**	A7	121	, 1	2	**1, ,**	D6	, 6	, 7	2	**D**	, ,	**A4y**
12:22- T	AD	152	2	**, 2D**	D6	, A2	, y	2	**, Dy**	yD	, 4	D	2	**7,**	4D	**D64**
11:22- T	7	71	2	**7y**	y	11y	12	1	**1A2**	1A	7	A	2	**62**	A	**, Dy**
, 2, , 92D82 1, :22P T	1	17	2	**1y**	2	, 5	A	2	**A2**	2	2	,	2	**,**	2	**D**
Vdcl	65A	, 26A	2	**, D4**	D5D	1A 6	, 51	1	**1Dy4**	746	, 2A	A66	2	**D65**	6, 5	**64Dy**
% P NNuMh	178%	718 %	2%	**9**	9	7A2%	152%	28%	**9**	9	A58 %	4, 8%	2%	**9**	9	9
% VdcM	128 %	6A%	2%	**D82%**	9	, 78%	D8%	2%	**A698%**	9	68%	58%	2%	**1185%**	9	9
Lights Mcd T utuorar lns	612	, 21y	2	**, 6, y**	9	1A2D	, 45	1	**1D5A**	9	1y7	Ay	2	**D95**	9	6Dy
% Lights Mcd T utuorar lns	748%	y78%	2%	**y48D%**	9	y78%	y78D%	122%	**y78%**	9	y58D%	y78D%	2%	**y78 %**	9	y58%
c nMth	6	D	2	**y**	9	1	,	2	**A**	9	1	6	2	**D**	9	15
% c nMth	28%	28 %	2%	**286%**	9	28%	28%	2%	**28 %**	9	28D%	18 %	2%	**28y%**	9	28%
v irar lns ue BuMd	Dy	1y	2	**57**	9	17	,	2	**, 2**	9	6	1	2	**D**	9	12A
% v irar lns ue BuMd	1, 8D%	28%	2%	**A8D%**	9	18%	28%	2%	**198%**	9	, 82%	28%	2%	**28y%**	9	, 8 %
- ndnstoiMds	9	9	9	9	642	9	9	9	9	564	9	9	9	9	622	
% - ndnstoiMds	9	9	9	9	728%	9	9	9	9	748%	9	9	9	9	yA5%	9
v irar lns ue CoussRMdv	9	9	9	9	11D	9	9	9	9	117	9	9	9	9	, 5	
% v irar lns ue CoussRMdv	9	9	9	9	, 28%	9	9	9	9	1A5%	9	9	9	9	48%	9

*- ndnstoiMds Mcd v irar lns ue CoussRMdv8L: Lnht3B: Bight3W WhoF3U: U9WFce

5566814 - COVID - QUEEN ELIZABETH DRWY @ FIF... - TMC

Mon May 9, 2022
Full Length (4:30 PM-12:30 AM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 9513. 6, Location: 457403921, -857 61984

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5566814 - COVID - QUEEN ELIZABETH DRWY @ FIF... - TMC

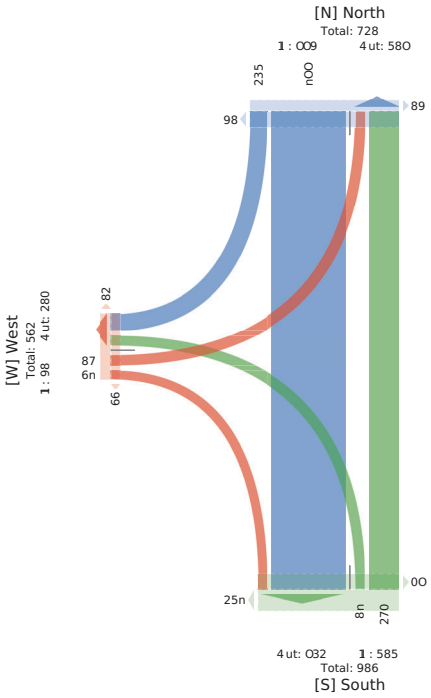
T ue T M 1 y3, 2, ,
0T 0FMl LT Md 2y , 2, , ng 20T h((g 2 0T 6h: AE-M90FMl 1 uP-
) 9hC9MdsFs Li dbr cs MdHT uou-vav9Fs31 FMda30FHFscdMds3Bdcav9Fs ue RuMdBBdcav9Fs ue C-usswMd 6
) 9hT uAFk Fecs
nh gynDt (43i uvMdueg7n872t y, DBl6n8(4Dy57

Provided by: City of Ottawa
0-uAdHFH. agCdca ub: ccMvM
D22 CuesdP9Mdue I -3
f FOFM3: f 3N, p nK(3C)

i Fo I dHVedue	f u-cr CuPcr . uPeH					CuPcr f u-cr . uPeH					J Fsc EMc uPeH					
Sdc F	R	S	W	) CO	0FHL	S	i	W	) CO	0FHL	R	i	W	) CO	0FHL	mc
, 2, , h2nl2y ng 20T	t D	D24	2	**Dty**	, 7	7D	D	2	**nt**	74	y	D	2	**, ,**	D	**, Dy**
ng7n0T	D5	D 2	2	**DA5**	7t	nn	DA	2	**(y**	nt	D2	D2	2	**, 2**	, ,	**, t (**
(g20T	D5	DAn	2	**Dt, ,**	, y	n7	y	2	**(t**	72	DD	D5	2	**, 4**	, 2	**, nt**
(gh0T	t 5	Dtt	2	**, , 2**	t (	75	D2	2	**n5**	(2	n	y	2	**DA**	, 2	**, yD**
SucM	D2,	n((	2	**((4**	D ,	Dy5	7n	2	**, 7,**	, 2D	t n	7y	2	**47**	57	**yy7**
***) COuMc**	Dn8 *	478*	2*	**h**	h	7DA*	D8[*	2*	**h**	h	7D8*	n48 *	2*	**h**	h	h
*** SucM**	D28 *	n(8*	2*	**(58 ***	h	Dy8t*	78n*	2*	**, 78 ***	h	t 8n*	78*	2*	**48n***	h	h
01 %	2[4n	28[(n	h	**28 5nn**	h	28A2	28A27	h	**28n(7**	h	28yn	28[, D	h	**28n2**	h	28t74
i dbr cs MdHT uou-vav9Fs	57	nn5	2	**(t D**	h	Dy2	7n	2	**, t n**	h	t n	74	2	**4t**	h	y7y
*** i dbr cs MdHT uou-vav9Fs**	5, 8n *	y48 7*	2*	**y78n***	h	y(8*	D2 2*	2*	**y58D***	h	D2 2*	y48 2*	2*	**y488***	h	yn8t*
1 FMda	2	t	2	**t**	h	2	2	2	**2**	h	2	D	2	**D**	h	7
*** 1 FMda**	2*	28n *	2*	**28 9***	h	2*	2*	2*	**2***	h	2*	, 8 2*	2*	**D8 ***	h	28 7*
Bdcav9Fs ue RuMd	, 4	(	2	**t 7**	h	5	2	2	**5**	h	2	2	2	**2**	h	7D
*** Bdcav9Fs ue RuMd**	, 58 *	DD7	2*	**n8D***	h	t 8[*	2*	2*	**, 8y***	h	2*	2*	2*	**2***	h	78 7*
0FHFscdMds	h	h	h	h	y(	h	h	h	h	D82	h	h	h	h	5,	
* 0FHFscdMds	h	h	h	h	5, 8*	h	h	h	h	478 *	h	h	h	h	y58 *	h
Bdcav9Fs ue C-usswMd	h	h	h	h	t (	h	h	h	h	t D	h	h	h	h	,	
* Bdcav9Fs ue C-usswMd	h	h	h	h	, 58 *	h	h	h	h	Dn8 9*	h	h	h	h	, 8*	h

L0FHFscdMds MdHBdcav9Fs ue C-usswMd 8i gi Fbr3RgRdbr c3SgSr -P3WgWdSP-e

Mon May 9, 2022
PM Peak (May 09 2022 5-60PM) O60 PMv) r l eHuuPeak AoCH
s uuLuiiei (gIt ddi anB MoonHRyRuei, Aeal y, PeBeidiani, whRyRuei on moaB, whRyRuei on
LHiiiI aukv
s uuMol eDenci
:4 - 9516O3, goRadon- . 57. 06921,)857O3198.



Ottawa
Phil lBeBby- Lhty of r ccal a
100 Loni ceuadon 4 Hj
Nepean, r N, K2G 5J9, Ls

Tue May 3, 20, 00
F M l eaL nMay 3, 0, 00 30F M g3 F Mt
F Hh(ln66e6 rr A916aP) MCICsi yi he62d eaoy2l e) e6ksAaP62r Ayi he6 CP c Ca) 2r Ayi he6 CP
(sCB6HahLr
F HhMCdev eP16
BRwkm3I D42: Cl a1KPw7n87, I k032g5n8D43k57

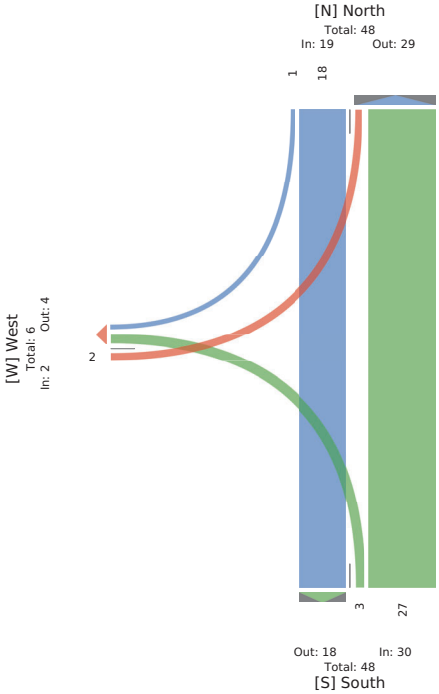
Ottawa
l sCnAe) . yw(Ay Cbf 1haHa
3, , (CP6lelhn1ACP Rs2
OeNeaP2f O2p 0K nCk2(F

: e- RAei 14CP	OCs19 J Cu19. CuP)					J Cu19 OCs19. CuP)					E e6l Sa6l. CuP)					
TAv e	c	T	W	FNN	l e) U	T	:	W	FNN	l e) U	c	:	W	FNN	l e) U	BP1
0, 00g mg3, 30w, FM	,	33	,	33	,	35	0	,	3k	,	,	,	,	,	,	I,
30s2mF M	3	5	,	4	,	3,	3	,	33	,	,	0	,	0	,	03
TChlh	3	34	,	3k	,	05	I	,	I,	,	,	0	,	0	,	n8
* FNNsCai 9	n8 *	k7f5 *	, *	g	g	k, 8 *	3, 8 *	, *	g	g	, *	3, , *	, *	g	g	g
* TChlh	08 *	I n8 *	, *	I58 *	g	n03k*	n8k*	, *	n88*	g	, *	I8k*	, *	I8k*	g	g
I d %	, 80m	, 8', k	g	, 870	g	, 8 k5	, 8 5m	g	, 8 km	g	g	, 80m	g	, 80m	g	, 870m
: A916aP) MCICsi yi he6	3	34	,	3k	g	05	I	,	I,	g	,	0	,	0	g	n8
* : A916aP) MCICsi yi he6	3, , *	3, , *	, *	3, , *	g	3, , *	3, , *	, *	3, , *	g	, *	3, , *	, *	3, , *	g	3, , *
d eaoy	,	,	,	,	g	,	,	,	,	g	,	,	,	,	g	,
* d eaoy	, *	, *	, *	, *	g	, *	, *	, *	, *	g	, *	, *	, *	, *	g	, *
r Ayi he6 CP c Ca)	,	,	,	,	g	,	,	,	,	g	,	,	,	,	g	,
* r Ayi he6 CP c Ca)	, *	, *	, *	, *	g	, *	, *	, *	, *	g	, *	, *	, *	, *	g	, *
l e) e6ksAaP6	g	g	g	g	.	g	g	g	g	.	g	g	g	g	.	
* l e) e6ksAaP6	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g
r Ayi he6 CP (sCB6HahL	g	g	g	g	.	g	g	g	g	.	g	g	g	g	.	
* r Ayi he6 CP (sCB6HahL	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g

[1] l e) e6ksAaP6 aP) r Ayi he6 CP (sCB6HahL8: w. ebl2c wc A 9 I2TwT9su2WwWgTusP

Tue May 3, 20, 00
AM Peak (May 3, 0, 00 30AM 83 AM:
A-- 9 -a))e) (l GLi) agh Mt it ndyd-e)2o ear y2Pehe)in(ag)2c Cdyd-e) t g Ht ah2c Cdyd-e) t g
9 nt))v a-k:
A-- Mt r eB egi)
RwnI B84752l t daiC gm D6 , 4I 0328I D6753I 1.

Ottawa
Pnt r Cieh byn9 Cy t f Oiiav a
3, , 9 t g)ie--aiC g wn2
Nepeag2ON2K0G DfI 29 A



T ue T M y3, 2, ,
0FIl Lnegth (6:A2 - T 9l, , :A2 P T)
P ll ClMssns (Lights Mcd T utucr arlns3c nMlb3- ndnstciMs3v irar lns ue BuMl3v irar lns ue
CaussRMlw)
P ll T uHnk nets
nh : yDLA413LurMiue: 6DCy6, y1394DB5A62y

Ottawa
- auHdnd . a: Cita ubf tuMKM
122 CuestnllMiue I ci
OnNsM3f O3p , K DCy3CP

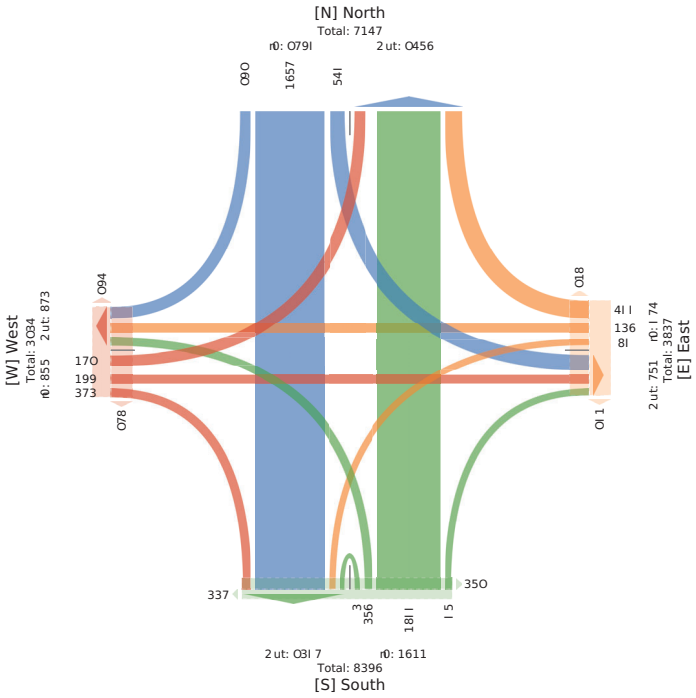
Lng I ionriue	Ouoth EuFth. uFed						J Mt S nst. uFed						EuFth Ouoth. uFed						S nst J Mt. uFed						
Wkn	B	W	L	U	PNN	- nl*	B	W	L	U	PNN	- nl*	B	W	L	U	PNN	- nl*	B	W	L	U	PNN	- nl*	mt
, 2, , 9ZDBy 6:22- T	, A	, 41	81	2	ADD	9	45	, 6	A	2	12D	A8	5	, D6	12	2	, 4,	At	12	, A	, D	2	D5	4A	4y2
D22- T	86	D 5	12A	2	8yD	9	1D5	D4	14	2	, A	1, A	14	684	1y	2	D2A	y6	, 8	D2	DD	2	1At	15A	1DB1
8:22- T	DA	Ay,	54	2	DA,	9	1AA	D2	y	2	1y,	1, 4	15	D2,	, y	2	D0y	62	A	A,	D	2	118	161	1A6y
4:22- T	A8	61D	42	2	D 1	9	45	AD	16	2	1, 4	1A8	1,	A61	, D	2	615	At	, y	, ,	A6	2	5D	y5	11D1
5:22- T	, 5	A84	66	2	6Ay	9	66	16	12	2	85	51	11	AA4	, 8	2	A46	, y	At	A8	, D	2	y,	84	y4A
y:22- T	A	, 58	A6	2	ADB	9	61	, 2	D	2	88	AD	y	A2A	14	1	AA2	1D	1A	15	A4	2	85	D2	5, 2
12:22- T	A4	A46	, 5	2	6Ay	9	AD	1D	D	2	DD	1Ay	8	, Dy	16	2	, 4y	, 2	, A	12	At	2	86	D2	5A4
11:22- T	, ,	, D4	, 1	2	A22	9	15	A	D	2	, 8	, 6	A	1A6	8	2	164	2	D	5	11	2	, 6	11	6y4
, 2, , 9ZDBI 2 1, :22P T	5	D4	8	2	41	9	A	1	2	2	6	4	2	64	A	2	D2	2	,	1	A	2	8	,	1A4
WnM	A2A	, y64	6Dl	2	A425	9	D5	, 1y	85	2	54D	425	56	, 855	16y	1	, y, ,	82	141	, 22	, 4A	2	866	851	516y
% P NNuMls	52 %	4y3D%	1, 8%	2%	9	9	847 %	1D2%	475%	2%	9	9	, 5%	y, 2%	D1%	2%	9	9	, 88%	A12%	6, 76%	2%	9	9	9
% WnM	A8%	A62 %	D8%	2%	6DD%	9	42 %	, 38%	27%	2%	128%	9	12%	A62%	15%	2%	A3y%	9	, 3%	, 13%	A6%	2%	43y%	9	9
Lights Mcd T utucr arlns	, 84	, 44,	6Dl	2	A6yA	9	DED	, 18	88	2	584	9	4y	, D 2	168	1	, 468	9	182	1yA	, 8D	2	815	9	44, 6
% Lights Mcd T utucr arlns	55%	y63 %	yy3%	2%	y62 %	9	yy3D%	y53%	y43%	2%	yy1%	9	y62%	yA5%	y52%	122%	y62%	9	yA8%	y83%	y43%	2%	y82%	9	y65%
c nMlh	, D	D2	1	2	48	9	,	2	2	2	,	9	2	D5	,	2	82	9	,	,	1	2	D	9	16A
% c nMlh	52%	12%	2 %	2%	, 2%	9	22%	2%	2%	2%	22 %	9	2%	, 2 %	12%	2%	, 1%	9	12 %	12%	22%	2%	25%	9	15%
v irar lns ue BuMl	11	1, D	A	2	1Ay	9	1	A	,	2	8	9	D	112	1	2	118	9	y	D	4	2	, 1	9	, 5,
% v irar lns ue BuMl	A8%	67 %	22%	2%	A2%	9	27 %	17%	, 3%	2%	22%	9	87%	63%	27%	2%	62%	9	D3%	, 3%	, 8%	2%	A2%	9	AD%
- ndnstciMs	9	9	9	9	9	2	9	9	9	9	9	8y6	9	9	9	9	9	6,	9	9	9	9	9	8AA	
% - ndnstciMs	9	9	9	9	9	9	9	9	9	9	9	9y52%	9	9	9	9	9	9yA1%	9	9	9	9	9	9yA2%	9
v irar lns ue CaussRMls	9	9	9	9	9	2	9	9	9	9	9	16	9	9	9	9	9	15	9	9	9	9	9	65	
% v irar lns ue CaussRMls	9	9	9	9	9	9	9	9	9	9	9	, 2%	9	9	9	9	9	83%	9	9	9	9	9	42%	9

*- ndnstciMs Mcd v irar lns ue CaussRMlw7L: Lnht3B: Bight3W WhoF3U: U9WFoe

5566814 - COVID - BANK ST @ SUNNYSIDE AVE - ... - TMC

Mon May 9, 2022
Full Length (4:30 PM-12:30 AM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 9513. 1, Location: 456394291, -. 5683409

Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5566814 - COVID - BANK ST @ SUNNYSIDE AVE - ... - TMC

Tue T M4 y3, 2, ,
0T 0FMI IT M4 2y , 2, , ngut 0T ht gut 0T (h6 : FM4-0FMI 9 u1A
P --) -MCFCIs idorCMc T uruAlaHHFC39 FMa30FcFGAM4C3v iHaHFCue BuM43v iHaHFCue
) AtCCRM4 (
P -- T u: FwFerC
kmgyt I DI1 3s uHMiuegnt 7Dyn, yI 3hit 7851n2y

Ottawa
0Au: icFc . ag) ira ub6 rnM2M
I 22) ueGF--Mue mA9
f FCFM436 f 3N, p t Hy3) P

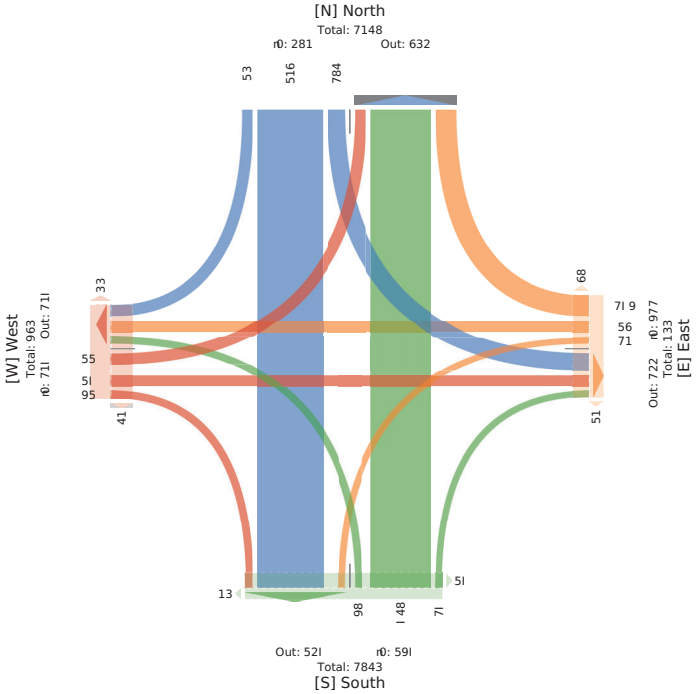
s Rl miAHHue	f uAo Ju1m. ulec					GM E E FG ulec					J u1ro f uAo. ulec					E FG GME ulec				
SiwF	B	S	s	W	P CO	0FcU	B	S	s	W	P CO	0FcU	B	S	s	W	P CO	0FcU	B	S	s	W	P CO	0FcU	ler
, 2, , h2y ngut 0T	1D	1n5	, y	2	1y2	h	DD	I,	I	2	n8	1y	D	1D	t	2	1n2	, I	t	It	It	2	D	nD	nI I
t g220T	y	1D	, 5	2	I4,	h	nn	I8	t	2	8t	nt	n	11t	D	2	1, ,	DD	y	I2	5	2	, 4	t,	D58
t g1t 0T	, 2	1D	, 8	2	145	h	D	In	D	2	ny	, t	I	111	t	2	114	, ,	I2	It	I5	2	nD	Dt	D54
t g120T	I8	1, I	, 8	2	I8D	h	DD	In	n	2	t I	, n	8	1D	4	2	1nt	I8	I	In	In	2	, y	ny	D55
SunM	t 5	t D8	12y	2	42D	h	In,	t 8	1D	2	, I I	11D	In	ny2	, 2	2	t , n	y,	, t	t n	t t	2	1Dn	15I	It 4,
* P COMMb	52D*	487 *	1t7 *	2*	h	h	847D*	, 87*	87 *	2*	h	h	, 2*	yD I*	D5*	2*	h	h	157*	n22D*	nI 2*	2*	h	h	h
* SunM	D8*	Dn7 *	87*	2*	nn2*	h	y2*	D8*	27*	2*	1 Dn*	h	27*	D7 *	1 D*	2*	DDD*	h	I 7*	Dn*	DI *	2*	57 *	h	h
09 %	27, t	27y15	27yt	h	27yDy	h	2752 4	275 4t	27I22	h	2752 5	h	27t2	27y, n	274 n	h	27y2D	h	27Dy	27e2	27dyn	h	2752 2	h	27yt 4
s idorCMc T uruAlaHHFC	t D	nyD	1 28	2	8t ,	h	I nI	t 8	I,	2	, 2y	h	I D	nt ,	I y	2	n5n	h	, D	t I	t D	2	I, 4	h	I n4,
* s idorCMc T uruAlaHHFC	cl 7n*	y, 7*	y47 *	2*	y, 7n*	h	yyD*	122*	y, D*	2*	yy7 *	h	y, 7*	y, 7 *	yt 7*	2*	y, 7n*	h	y, 2*	yn7n*	y87n*	2*	yn75*	h	yD8*
9 FMa	t	In	I	2	, 2	h	I	2	2	2	I	h	2	12	I	2	I I	h	2	2	I	2	I	h	DD
* 9 FMa	57n*	, 7n*	27y*	2*	, 75*	h	27n*	2*	2*	2*	27 *	h	2*	, 7*	t 7*	2*	, 7 *	h	2*	2*	175*	2*	27n*	h	, 7 *
vi HaHFCue BuM	2	, y	,	2	D I	h	2	2	I	2	I	h	I	, 5	2	2	, y	h	,	D	I	2	8	h	84
* vi HaHFCue BuM	2*	t 7n*	175*	2*	n7n*	h	2*	2*	47n*	2*	27 *	h	47 *	t 7n*	2*	2*	t 7 *	h	52*	t 7n*	175*	2*	n7 *	h	nD7*
0Fc FGAM4C	h	h	h	h	2	h	h	h	h	h	125	h	h	h	h	h	5n	h	h	h	h	h	188	h	
* 0Fc FGAM4C	h	h	h	h	h	h	h	h	h	h	hyt 7n*	h	h	h	h	h	hyt 7D*	h	h	h	h	h	hyI 7n*	h	h
vi HaHFCue) AtCCRM4	h	h	h	h	2	h	h	h	h	h	t	h	h	h	h	h	5	h	h	h	h	h	It	h	
* vi HaHFCue) AtCCRM4	h	h	h	h	h	h	h	h	h	h	h n7n*	h	h	h	h	h	57n*	h	h	h	h	h	57D*	h	h

[1] 0Fc FGAM4C Mc vi HaHFCue) AtCCRM4 7s gs Fhr3BgBidor3SgSoA13WgWdS1Ae

5566814 - COVID - BANK ST @ SUNNYSIDE AVE - ... - TMC

Mon May 9, 2022
PM Peak (May 09 2022 5-56PM) 6-56 PMO) v relaHHPeak u oAl
CHHs laILeL(i ght dLanc Modl BaHHL, u ear y, PeceLdgnL, RgBaHHLon woac, RgBaHHLon
s loILmaRtO
CHHMor el endL
D - 964134, i oHadpn- 56.195294,)36.781509

Plor g ec by-s gly of v ddma
400 s onLdeHHdpn : l,
Nepean, v N, K2G 6J9, s C



5566814 - COVID - BANK ST @ SUNNYSIDE AVE - ... - TMC

Tue May 3, 20, 00
F M l eaL n May 3, 0, 00 30F M g3 F Mt
F h(haGGe6 rt A9I6 aP) MCICsi yi he6 2d eaoy21 e) e6ksAaP62r Aayi he6 CP c Ca) 2r Aayi he6 CP
(sCBGHaHaLr
F hhMCoev eP16
BRwkm3I D32: Cl a1ACPw4m7I k40k32gDm8514, k

Ottawa
l sCoA)e) . yw(Ay Cbf 1haHa
3, , (CP6leHn1ACP Rs2
OeNeaP2f O2p 0K mCk2(F

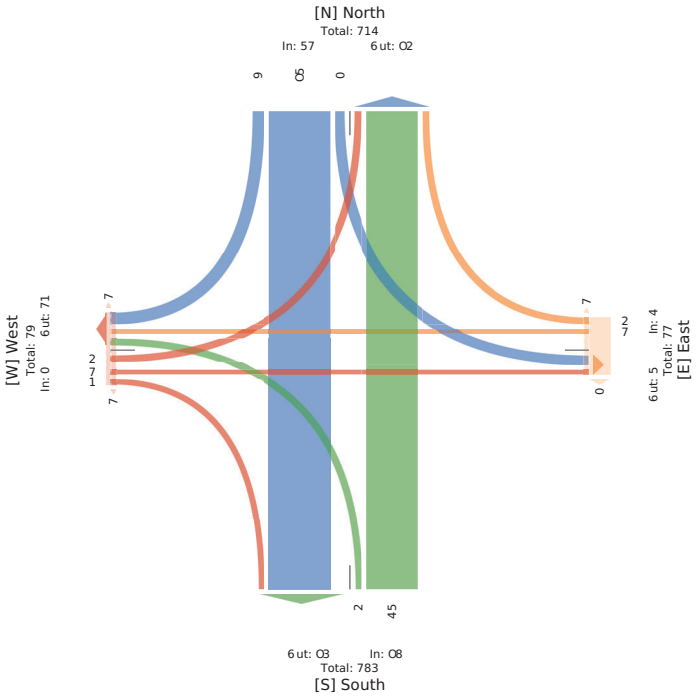
: e- RAei 1ACP	OGaB ECuB. CuP)					J a6L S e6L CuP)					ECuB OGaB. CuP)					S e6l J a6L CuP)				
TA e	c	T	:	W	F NN	l e) U	c	T	:	W	F NN	l e) U	c	T	:	W	F NN	l e) U	c	T	:	W	F NN	l e) U	BP1
0, 00g mg3, 30w , F M	0	0I	3	,	08	g	I	3	,	,	4	3	,	10	3	,	I I	,	3	,	,	,	3	3	84
30aImF M	8	I 4	m	,	4m	g	,	,	,	,	,	8	,	3m	0	,	3D	,	3	3	I	,	m	3	8D
TCah	5	nD	8	,	D8	g	I	3	,	,	4	D	,	4D	I	,	m	,	0	3	I	,	8	0	313
* F NNCai 9	33I *	5, 7 *	57nF	, *	g	g	Dn7 *	0n7 *	, *	, *	g	g	, *	k47 *	87 *	, *	g	g	I I 7 *	38ID*	m 7 *	, *	g	g	g
* TCah	873*	4I 7nF	47B*	, *	n47D*	g	0I I *	, 75*	, *	, *	I 73*	g	, *	I n7k*	0I 7*	, *	157D*	g	32nF	, 75*	0I 1 *	, *	47B*	g	g
I d %,	, 7 I I	, 7I, 4	, 7I, ,	g	, 7 5I	g	, 7Dm	, 7Dm	g	g,	7Dm	g	g	, 7 I 8D,	7 Dm	g	, 7 Dk	g	, 7n,	, 7Dm	, 7Dm	g,	7I , ,	g	, 7453
: A9I6aP) MCICsi yi he6	D	nI	8	,	88	g	I	3	,	,	4	g	,	4m	I	,	45	g	0	3	I	,	8	g	304
* : A9I6aP) MCICsi yi he6	5D nF	kI 7 *	3, , *	, *	kI 7 *	g	3, , *	3, , *	, *	3, , *		g	, *	km D*	3, , *	, *	k87 *	g	3, , *	3, , *	3, , *	, *	3, , *	g	k4D*
d eaoy	3	0	,	,	I	g	,	,	,	,	,	g	,	0	,	,	0	g	,	,	,	,	,	g	m
* d eaoy	30 7nF	I 7nF	, *	, *	47D*	g	, *	, *	, *	, *	, *	g	, *	47 *	, *	, *	47 *	g	, *	, *	, *	, *	, *	g	I 7*
r Aayi he6 CP c Ca)	,	0	,	,	0	g	,	,	,	,	,	g	,	,	,	,	,	g	,	,	,	,	,	g	0
* r Aayi he6 CP c Ca)	, *	I 7nF	, *	, *	075*	g	, *	, *	, *	, *	, *	g	, *	, *	, *	, *	, *	g	, *	, *	, *	, *	, *	g	37nF
I e) e6ksAaP6	g	g	g	g	g	,	g	g	g	g	g	D	g	g	g	g	g	,	g	g	g	g	g	0	
* I e) e6ksAaP6	g	g	g	g	g	g	g	g	g	g	g	g	3, , *	g	g	g	g	g	g	g	g	g	g	g	g
r Aayi he6 CP (sCBGHaHaL	g	g	g	g	g	,	g	g	g	g	g	,	g	g	g	g	g	,	g	g	g	g	g	,	
* r Aayi he6 CP (sCBGHaHaL	g	g	g	g	g	g	g	g	g	g	g	g	, *	g	g	g	g	g	g	g	g	g	g	g	g

[1] I e) e6ksAaP6 aP) r Aayi he6 CP (sCBGHaHaL7: wc ebI2c wc A9 I2TwT9su2WwWgTusP

5566814 - COVID - BANK ST @ SUNNYSIDE AVE - ... - TMC

Tue May 3, 20, 00
AM Peak (May 3, 0, 00 30AM 83 AM:
A-- 9 -a))e) (l GLi) agh Mt it ndyd-e)2o ear y2Pehe)in Gag)2c G dyd-e) t g Ht ah2c Gdyd-e) t g 9 rt))v a-k:
A-- Mt r eBegi)
Rwm1 DB4732l t dai€ gn5D4I 50I 3287D6145, I

Ottawa
Pnt r Gieh bym9 Gy t f Oiiav a
3, , 9 t g)ie--ai€ g wn2
Nepeag2ON2K0G DfI 29 A



5566814 - COVID - BANK ST @ EXHIBITION WAY -... - TMC

T ue T M i y3, 2, ,
0Fll Lnegth (6:A2 - T 9l, : A2 P T)
P ll ClMksns (Lights Mcd T utucr arlns3c nMh3- ndnstciMs3v irar lns ue BuM3v irar lns ue CoussRMlw)
P ll T uHnk nets
nh : yDI6143LurMiue: 6DPy8546395D748DByA

Ottawa
- ouHdnd . a: Cita ubf ttNRM
122 CuestnllMiue I ci3
OnNnM3f O3p , K DGy3CP

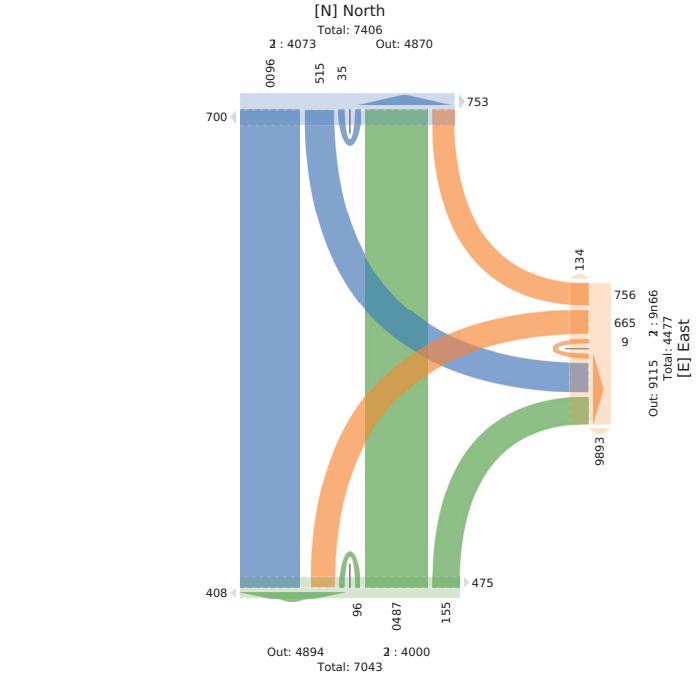
Lng I ionrtiue	Ouoth EuFth. uFed					J Mt S nst. uFed					EuFth Ouoth. uFed					
Wkn	W	L	U	**P NN**	- nd*	B	L	U	**P NN**	- nd*	B	W	U	**P NN**	- nd*	**mt**
, 2, , 92D2y 6:22- T	, 25	84	,	**, yD**	5,	Ay	41	2	**122**	1D5	y2	, 18	1	**A2y**	A4	**526**
D22- T	611	14D	y	**D8D**	151	84	118	2	**, 26**	Ay6	184	61D	,	**42A**	y8	**1Ay,**
4:22- T	A1D	1DD	1,	**68,**	, 55	81	81	2	**14,**	666	186	6, 6	4	**416**	168	**1, D8**
5:22- T	A 8	1D8	12	**6y4**	, 4,	58	84	2	**146**	A48	1, 1	A4A	A	**685**	1Ay	**1165**
8:22- T	, y4	1A5	A	**6A4**	44	42	5D	2	**1AD**	142	8A	, 8,	2	**A4D**	68	**yA4**
y:22- T	, , D	y8	5	**AA2**	4,	41	52	2	**1At**	56	84	, 68	1	**AAD**	, 8	**5y4**
12:22- T	, 41	125	11	**A5y**	A5,	15A	168	2	**A, 1**	, , A	y6	, 26	6	**A2,**	14,	**122,**
11:22- T	1AA	4D	,	**, 22**	A	12A	11D	2	**, 18**	AA	62	116	2	**1D6**	, 5	**D5,**
, 2, , 92D2 1, :22P T	61	18	A	**4,**	A	14	, D	1	**6,**	1D	1D	A8	2	**DA**	A	**1D6**
VktM	, , 15	y8y	Dy	**A, 4D**	1A15	4y5	55y	1	**1655**	1848	8yy	, A24	15	**A , ,**	48y	**5y46**
% P NNuMh	453%	A2P6%	1P6%	**9**	9	65Z %	D, Z5%	2Z1%	**9**	9	, 53%	51Z%	2Z3%	**9**	9	9
% VktM	, 58%	1, 76%	2Z5%	**61Z%**	9	88%	y2%	2%	**18D3%**	9	11Z%	, y2Z%	2Z %	**62D3%**	9	9
Lghts Mcd T utucr arlns	, 251	y5D	Dy	**At2D**	9	4y2	5A4	1	**16, 5**	9	88,	, 1y6	15	**A2yA**	9	54, D
% Lghts Mcd T utucr arlns	yA6%	y87%	122%	**yD1%**	9	yy2%	y6D3%	122%	**y47A%**	9	y87.%	yD1.%	122%	**y42%**	9	yD5%
c nMh	52	A	2	**5A**	9	A	6	2	**5**	9	4	D2	2	**Dt**	9	1A4
% c nMh	A2 %	2P6%	2%	**, Z %**	9	2P5%	2D3%	2%	**2D3%**	9	2P5%	, Z %	2%	**15%**	9	1Z5%
v irar lns ue BuM	54	11	2	**85**	9	6	Ay	2	**6A**	9	11	4,	2	**5A**	9	, 2A
% v irar lns ue BuM	A6%	1Z1%	2%	**, Z5%**	9	2Z1%	D2P%	2%	**, Z,%**	9	1Z, %	, Z5%	2%	**, Z6%**	9	, D3%
- ndnstciMs	9	9	9	9	1, y8	9	9	9	9	18A1	9	9	9	9	454	
% - ndnstciMs	9	9	9	9	y87Z%	9	9	9	9	y87Z%	9	9	9	9	y87Z%	9
v irar lns ue CoussRMlw	9	9	9	9	1y	9	9	9	9	A5	9	9	9	9	1A	
% v irar lns ue CoussRMlw	9	9	9	9	1Z5%	9	9	9	9	, Z5%	9	9	9	9	1Z,%	9

*- ndnstciMs Mcd v irar lns ue CoussRMlw7L: Lnht3B: Bight3W WhoF3U: U9WFce

5566814 - COVID - BANK ST @ EXHIBITION WAY -... - TMC

Mon May 9, 2022
Full Length (4:30 PM-12:30 AM)
All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 95141. , Location: 4568978. 4, -856 75793

Ottawa
Provided by: City of Ottawa
100 Constellation Dr,
Nepean, ON, K2G 5J9, CA



5566814 - COVID - BANK ST @ EXHIBITION WAY -... - TMC

T ue T M i y3, 2, ,
0T 0FNi lT Mi 2y , 2, , ngit 0T ht gnt 0T (h6 : FAi4- 0FNi 9 u1A
P –) -MCCRCls idorCMc T unrAhHFC39 FMa30 FcFGiAMdC3v iHhHFCue BuM3v iHhHFCue) AtCCRMi (
P – T u: FwFerC
kmgyt I nl D3s uHMiue gnt 4Fy85Dn3l6t 4D8t 8y7

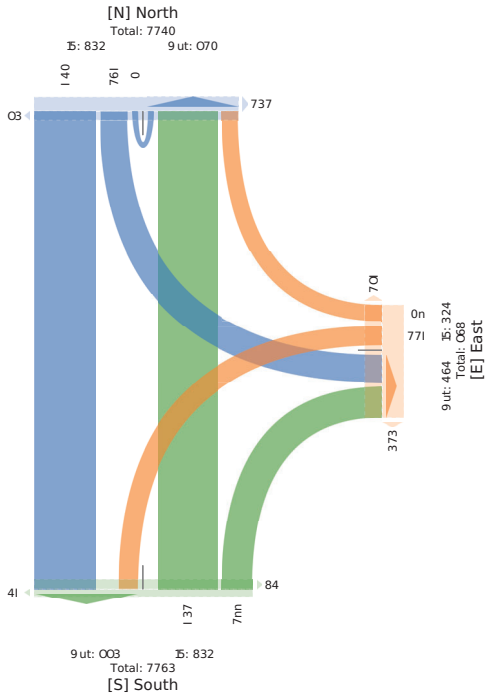
Ottawa
0Au: icFc . ag) ira ub6 mNRM
I 22) ueGF–Miue mA8
f FOFM36 f 3N, p t K3) P

s Fd miAHHiue	f uAo Ju1ro. u1ec					GMi E FG: u1ec					Ju1ro f uAo. u1ec					
SiwF	S	s	W	**P CO**	0FcU	B	s	W	**P CO**	0FcU	B	S	W	**P CO**	0FcU	**ber**
, 2, , h2t h2y ngit 0T	I I 7	ny	I	**I D7**	n2	, 7	, y	2	**t ,**	8y	t 7	12D	2	**I t y**	, D	**75n**
t g220T	I, I	, 8	2	**I ny**	7n	, n	71	2	**t t**	8D	ny	12n	2	**I t 7**	, n	**7t 5**
t gI t 0T	8t	nI	,	**I , 8**	n8	, 8	72	2	**t 8**	I I y	n,	12n	2	**I nD**	1D	**77,**
t g720T	I I y	t D	t	**I 82**	t I	I n	, n	2	**78**	5,	t t	125	2	**I D,**	71	**782**
SunM	n78	I 5n	8	**D, 2**	157	8y	I I n	2	**, 27**	7D3	I yy	n, I	2	**D, 2**	y5	**I nn7**
*** P COOMh**	524D*	, 84 *	I 4F*	**h**	h	n74*	t Di *	2*	**h**	h	7, 4 *	D54*	2*	**h**	h	h
*** SunM**	724*	I, 4 *	24D*	**n74F***	h	Di *	54*	2*	**I n4 ***	h	I74*	, y4 *	2*	**n74F***	h	h
09 %	24y5	245,	24n22	**24FD**	h	24yt	24/I	h	**24Dn**	h	24yI	24I,	h	**24y78**	h	24n2
s idorCMc T unrAhHFC	7y2	157	8	**t 5I**	h	8y	125	2	**I yD**	h	I yD	7yn	2	**t y2**	h	I 7t 5
*** s idorCMc T unrAhHFC**	8y4F*	yy4r*	I 22*	**y, 4 ***	h	I 22*	y74*	2*	**yDD7**	h	y84 *	y74D*	2*	**yt 4 ***	h	yn4F*
9 FMa	I y	2	2	**I y**	h	2	I	2	**I**	h	2	I 2	2	**I 2**	h	72
*** 9 FMa**	n4F*	2*	2*	**74 ***	h	2*	24*	2*	**24 ***	h	2*	, 4r*	2*	**I 4D7**	h	, 4 *
v iHhHFCue BuM	, y	I	2	**72**	h	2	D	2	**D**	h	7	I 5	2	**, 2**	h	t D
*** v iHhHFCue BuM**	DD7	24D*	2*	**n4F***	h	2*	t 4F*	2*	**74F***	h	I 4 *	n42*	2*	**74 ***	h	74*
0FcFGiAMdC	h	h	h	h	I Dt	h	h	h	h	7t,	h	h	h	h	y,	
* 0FcFGiAMdC	h	h	h	h	yt 4r*	h	h	h	h	yDi *	h	h	h	h	yn4F*	h
v iHhHFCue) AtCCRMi	h	h	h	h	8	h	h	h	h	I n	h	h	h	h	t	
* v iHhHFCue) AtCCRMi	h	h	h	h	n4D*	h	h	h	h	74F*	h	h	h	t 4 *	h	

L0FcFGiAMdCMc v iHhHFCue) AtCCRMi 4s gs Fr3BgBidor3SgSoAI3WgWfS1Ae

5566814 - COVID - BANK ST @ EXHIBITION WAY -... - TMC
Mon May 9, 2022
PM Peak (May 09 2022 5-56PM) 6-56 PMO) v r elaHPeak u oA
C Hs ldLeL (i ght dLanc Modl By Hd, u ear y, Pece Ld gnL, Rg By Hd Lon woac, Rg By Hd Lon
s loLLmaRO
C HMor el end.
D - 964541, i oEadgn- 563 97815,)863 17679.

Plorg ec by- s gy of v dhma
400 s onLdHHdgn : l,
Nepean, v N, K2G 6J9, s C



5566814 - COVID - BANK ST @ EXHIBITION WAY -... - TMC
Tue May 3, 20, 00
F M l eaL nMay 3, 0, 00 30F M g3 F Mt
F lh(ln66e6 n A 916 aP) MCICsi yi he62d eaoy2l e) e6ksAP62r Ayi he6 CP c Ca) 2r Ayi he6 CP
(sCBGHaLL
F lhMCOev eP16
BRwkm3l 3D2: Cl a1KPwl m7k85D1 2g5mDBm8k7

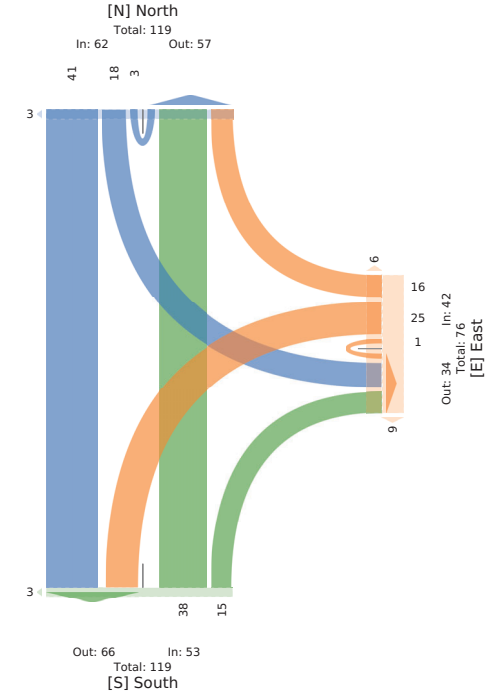
l sCoA e) . yw(Ay Cb f 1laHa
3, , (CP6lelhn1ACP Rs2
OeNeaP2f O2p 0K nGk2(F

: e- RAei 14CP	OCaB EGuB. CuP)					J a61 S e6L CuP)					EGuB OCaB. CuP)					
TA r e	T	:	W	FNN	l e) U	c	:	W	FNN	l e) U	c	T	W	FNN	l e) U	BP1
0, 00g mg3, 30w , F M	3D	3m	7	71	3	8	30	3	03	m	5	0D	,	77	7	88
30 mF M	0m	7	,	08	0	8	37	,	03	3,	8	30	,	0,	,	Dk
TCah	13	38	7	D0	7	3D	0m	3	10	3m	3m	78	,	m7	7	3m5
* FNNCal 9	DD8*	0k4 *	I 48*	g	g	784*	nk4nf	04 *	g	g	084*	534*	, *	g	g	g
* TCah	0D8*	334nf	34:*	7k4nf	g	3, 40*	3nk:*	, 47*	0D8*	g	k47*	0I 40*	, *	774*	g	g
1 d %(	, 4 , ,	, 47 , ,	, 40m	, 4 D0	g	, 4n ,	, 4 83	, 40m	, 4n ,	g	, 4 Dk	, 47Dm	g	, 4 , 0	g	, 4 I 8
: A 916 aP) MCICsi yi he6	75	38	7	n8	g	3m	0m	3	13	g	3I	7D	,	m	g	3I k
* : A 916 aP) MCICsi yi he6	k, 40*	3, , *	3, , *	k74nf	g	k74*	3, , *	3, , *	k54D*	g	k74*	kI 4*	, *	kI 4*	g	kI 4:*
d eaoy	7	,	,	7	g	3	,	,	3	g	3	0	,	7	g	5
* d eaoy	54*	, *	, *	I 48*	g	D8*	, *	, *	04 *	g	D8*	m7*	, *	m5*	g	I 4nf
r Ayi he6 CP c Ca)	3	,	,	3	g	,	,	,	,	g	,	,	,	,	g	3
* r Ayi he6 CP c Ca)	04 *	, *	, *	34D*	g	, *	, *	, *	, *	g	, *	, *	, *	, *	g	, 47*
l e) e6ksAP6	g	g	g	g	7	g	g	g	g	3m	g	g	g	g	7	
* l e) e6ksAP6	g	g	g	g	3, , *	g	g	g	g	3, , *	g	g	g	g	3, , *	g
r Ayi he6 CP (sCBGHaLL	g	g	g	g	,	g	g	g	g	,	g	g	g	g	,	
* r Ayi he6 CP (sCBGHaLL	g	g	g	g	, *	g	g	g	g	, *	g	g	g	g	, *	g

Cl l e) e6ksAP6 aP) r Ayi he6 CP (sCBGHaLL4: w: ebI2c wc A 9 I2TwI9su2WvWgTusP

5566814 - COVID - BANK ST @ EXHIBITION WAY -... - TMC
Tue May 3, 20, 00
AM Peak (May 3, 0, 00 30AM 83 AM:
A-- 9 -a))e) (l GLi) agh Mt it ndyd-e)2o ear y2Pehe)in6ag)2c Gdyd-e) t g Ht ah2c Gdyd-e) t g
9 nt))v a-k:
A-- Mt r eBegi)
RwnI B4372l t daiC gm4D5 I 617428LD576D6I .

Pnt r Cheh bym9 Gy t f Oiiav a
3, , 9 t g)ie--aiC g wn2
Nepeag2ON2K0G DfI 29 A



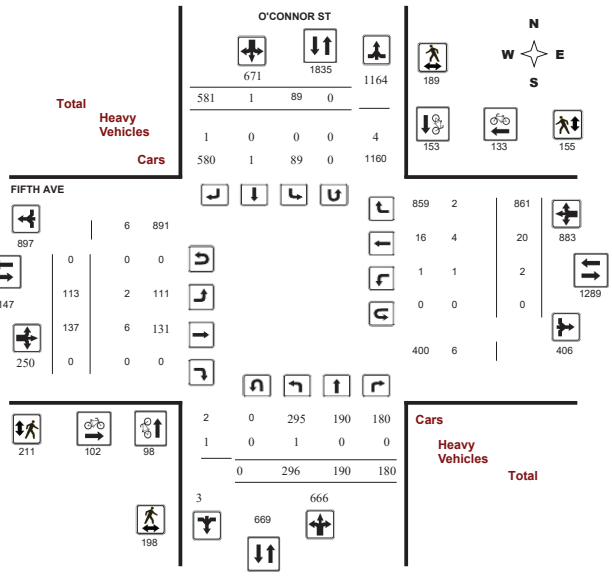
Transportation Services - Traffic Services

Turning Movement Count - Study Results

FIFTH AVE @ O'CONNOR ST

Survey Date: Tuesday, July 26, 2022
Start Time: 16:00
WO No: 40492
Device: Miovision

Full Study Diagram



Transportation Services - Traffic Services

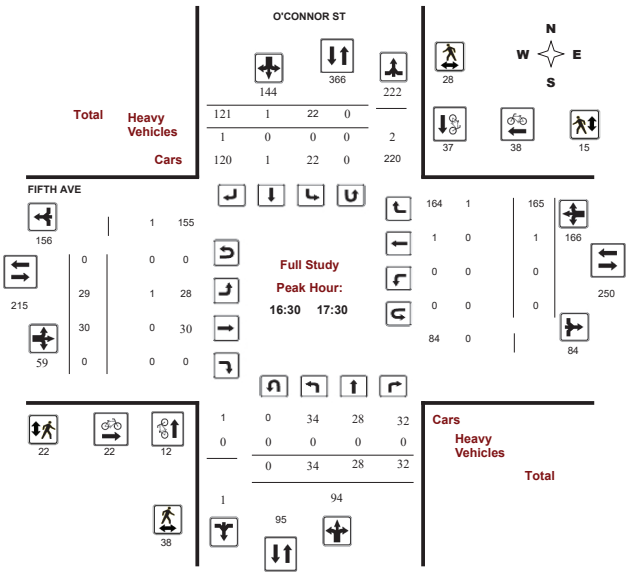
Turning Movement Count - Study Results

FIFTH AVE @ O'CONNOR ST

Survey Date: Tuesday, July 26, 2022 **WO No:** 40492

Start Time: 16:00 **Device:** Miovision

Full Study Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FIFTH AVE @ O'CONNOR ST

Survey Date: Tuesday, July 26, 2022 **WO No:** 40492

Start Time: 16:00 **Device:** Miovision

Full Study 15 Minute Increments

		O'CONNOR ST									FIFTH AVE								
		Northbound				Southbound					Eastbound				Westbound				
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
16:00	16:15	9	2	6	17	4	0	32	36	53	6	10	0	16	0	0	34	34	50	103
16:15	16:30	12	8	7	27	6	0	43	49	76	5	8	0	13	1	0	33	34	47	123
16:30	16:45	9	9	9	27	5	0	35	40	67	10	7	0	17	0	0	57	57	74	141
16:45	17:00	9	7	2	18	7	1	25	33	51	6	7	0	13	0	0	30	30	43	94
17:00	17:15	5	6	8	19	5	0	30	35	54	6	7	0	13	0	1	31	32	45	99
17:15	17:30	11	6	13	30	5	0	31	36	66	7	9	0	16	0	0	47	47	63	129
17:30	17:45	4	1	9	14	6	0	29	35	49	6	7	0	13	0	0	47	47	60	109
17:45	18:00	10	5	7	22	4	0	25	29	51	3	2	0	5	0	0	22	22	27	78
18:00	18:15	7	10	9	26	9	0	20	29	55	3	9	0	12	0	2	31	33	45	100
18:15	18:30	8	6	5	19	6	0	28	34	53	3	8	0	11	0	1	35	36	47	100
18:30	18:45	6	10	5	21	0	0	27	27	48	6	6	0	12	0	0	24	24	36	84
18:45	19:00	15	9	5	29	2	0	26	28	57	4	9	0	13	0	0	24	24	37	94
19:00	19:15	14	8	10	32	4	0	27	31	63	6	5	0	11	0	2	24	26	37	100
19:15	19:30	12	9	6	27	6	0	15	21	48	3	10	0	13	1	0	27	28	41	89
19:30	19:45	18	9	8	35	0	0	24	24	59	5	5	0	10	0	1	27	28	38	97
19:45	20:00	19	12	8	39	2	0	14	16	55	4	4	0	8	0	0	37	37	45	100
20:00	20:15	15	9	7	31	2	0	19	21	52	0	4	0	4	0	0	36	36	40	92
20:15	20:30	13	7	12	32	1	0	22	23	55	4	1	0	5	0	0	25	25	30	85
20:30	20:45	8	4	3	15	3	0	22	25	40	5	1	0	6	0	0	18	18	24	64
20:45	21:00	12	8	5	25	2	0	17	19	44	6	2	0	8	0	3	28	31	39	83
21:00	21:15	10	7	7	24	0	0	9	9	33	1	5	0	6	0	2	33	35	41	74
21:15	21:30	7	7	6	20	0	0	11	11	31	2	2	0	4	0	0	42	42	46	77
21:30	21:45	10	7	0	17	0	0	7	7	24	3	1	0	4	0	2	21	23	27	51
21:45	22:00	12	4	1	17	0	0	11	11	28	3	2	0	5	0	1	28	29	34	62
22:00	22:15	6	3	7	16	3	0	7	10	26	1	1	0	2	0	2	31	33	35	61
22:15	22:30	9	4	5	18	0	0	3	3	21	0	3	0	3	0	0	17	17	20	41
22:30	22:45	7	3	4	14	2	0	4	6	20	2	0	0	2	0	1	11	12	14	34
22:45	23:00	3	2	3	8	0	0	5	5	13	1	1	0	2	0	0	7	7	9	22
23:00	23:15	7	3	1	11	2	0	3	5	16	1	1	0	2	0	0	6	6	8	24
23:15	23:30	5	2	0	7	1	0	2	3	10	0	0	0	0	0	1	10	11	11	21
23:30	23:45	2	1	2	5	2	0	4	6	11	0	0	0	0	0	1	9	10	10	21
23:45	00:00	2	2	0	4	0	0	4	4	8	1	0	0	1	0	0	9	9	10	18
Total:		296	190	180	666	89	1	581	671	1337	113	137	0	250	2	20	861	883	1133	2,470

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

FIFTH AVE @ O'CONNOR ST

Survey Date: Tuesday, July 26, 2022 **WO No:** 40492

Start Time: 16:00 **Device:** Miovision

Full Study Cyclist Volume

		O'CONNOR ST			FIFTH AVE			
Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
16:00	16:15	3	6	9	7	4	11	20
16:15	16:30	4	5	9	6	8	14	23
16:30	16:45	4	9	13	3	8	11	24
16:45	17:00	3	11	14	7	8	15	29
17:00	17:15	4	8	12	7	7	14	26
17:15	17:30	1	9	10	5	15	20	30
17:30	17:45	5	14	19	1	4	5	24
17:45	18:00	0	8	8	0	5	5	13
18:00	18:15	9	9	18	5	4	9	27
18:15	18:30	2	3	5	4	6	10	15
18:30	18:45	1	5	6	10	5	15	21
18:45	19:00	4	12	16	4	4	8	24
19:00	19:15	4	4	8	5	3	8	16
19:15	19:30	3	5	8	7	0	7	15
19:30	19:45	4	7	11	1	3	4	15
19:45	20:00	5	3	8	4	7	11	19
20:00	20:15	5	5	10	4	7	11	21
20:15	20:30	6	3	9	3	7	10	19
20:30	20:45	3	4	7	0	4	4	11
20:45	21:00	4	4	8	1	4	5	13
21:00	21:15	3	0	3	1	2	3	6
21:15	21:30	5	2	7	2	0	2	9
21:30	21:45	1	1	2	3	0	3	5
21:45	22:00	3	2	5	1	3	4	9
22:00	22:15	4	7	11	6	4	10	21
22:15	22:30	1	0	1	0	5	5	6
22:30	22:45	0	0	0	1	3	4	4
22:45	23:00	0	1	1	0	0	0	1
23:00	23:15	1	1	2	1	1	2	4
23:15	23:30	5	0	5	1	0	1	6
23:30	23:45	1	1	2	0	0	0	2
23:45	00:00	0	4	4	2	2	4	8
Total		98	153	**251**	102	133	235	486

Transportation Services - Traffic Services

Turning Movement Count - Study Results

FIFTH AVE @ O'CONNOR ST

Survey Date: Tuesday, July 26, 2022 **WO No:** 40492

Start Time: 16:00 **Device:** Miovision

Full Study Pedestrian Volume

		O'CONNOR ST			FIFTH AVE			
Time Period		NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
16:00	16:15	10	1	**11**	7	5	**12**	**23**
16:15	16:30	4	9	**13**	11	13	**24**	**37**
16:30	16:45	11	5	**16**	7	3	**10**	**26**
16:45	17:00	5	11	**16**	5	7	**12**	**28**
17:00	17:15	9	6	**15**	5	1	**6**	**21**
17:15	17:30	13	6	**19**	5	4	**9**	**28**
17:30	17:45	2	3	**5**	6	7	**13**	**18**
17:45	18:00	7	10	**17**	3	3	**6**	**23**
18:00	18:15	7	6	**13**	4	3	**7**	**20**
18:15	18:30	9	10	**19**	2	8	**10**	**29**
18:30	18:45	3	8	**11**	3	2	**5**	**16**
18:45	19:00	5	3	**8**	0	6	**6**	**14**
19:00	19:15	8	11	**19**	16	3	**19**	**38**
19:15	19:30	14	4	**18**	10	8	**18**	**36**
19:30	19:45	3	10	**13**	13	2	**15**	**28**
19:45	20:00	8	6	**14**	12	10	**22**	**36**
20:00	20:15	12	10	**22**	8	13	**21**	**43**
20:15	20:30	12	16	**28**	6	5	**11**	**39**
20:30	20:45	8	10	**18**	11	6	**17**	**35**
20:45	21:00	6	10	**16**	10	19	**29**	**45**
21:00	21:15	0	5	**5**	8	6	**14**	**19**
21:15	21:30	11	10	**21**	11	7	**18**	**39**
21:30	21:45	5	4	**9**	0	3	**3**	**12**
21:45	22:00	4	1	**5**	5	2	**7**	**12**
22:00	22:15	4	3	**7**	18	5	**23**	**30**
22:15	22:30	3	2	**5**	10	0	**10**	**15**
22:30	22:45	3	1	**4**	0	0	**0**	**4**
22:45	23:00	1	4	**5**	13	0	**13**	**18**
23:00	23:15	2	1	**3**	0	1	**1**	**4**
23:15	23:30	3	0	**3**	0	0	**0**	**3**
23:30	23:45	2	3	**5**	0	1	**1**	**6**
23:45	00:00	4	0	**4**	2	2	**4**	**8**
Total	.....	198	189	**387**	211	155	**366**	**753**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

FIFTH AVE @ O'CONNOR ST

Survey Date: Tuesday, July 26, 2022 **WO No:** 40492

Start Time: 16:00 **Device:** Miovision

Full Study Heavy Vehicles

		O'CONNOR ST								FIFTH AVE								
		Northbound				Southbound				Eastbound				Westbound				
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
16:00	16:15	0	0	0	**0**	0	0	0	**1**	**1**	0	1	0	**1**	0	0	1	**2**	**3**	**2**
16:15	16:30	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
16:30	16:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
16:45	17:00	0	0	0	**0**	0	0	0	**1**	**1**	1	0	0	**1**	0	0	0	**0**	**1**	**1**
17:00	17:15	0	0	0	**0**	0	0	1	**2**	**2**	0	0	0	**1**	0	0	1	**1**	**2**	**2**
17:15	17:30	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
17:30	17:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
17:45	18:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
18:00	18:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
18:15	18:30	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**1**	0	1	0	**1**	**2**	**1**
18:30	18:45	1	0	0	**1**	0	0	0	**1**	**2**	1	0	0	**2**	0	0	0	**0**	**2**	**2**
18:45	19:00	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	0	0	**1**	**2**	**1**
19:00	19:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
19:15	19:30	0	0	0	**1**	0	0	0	**0**	**1**	0	2	0	**2**	1	0	0	**3**	**5**	**3**
19:30	19:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
19:45	20:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
20:00	20:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
20:15	20:30	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
20:30	20:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
20:45	21:00	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**3**	0	2	0	**3**	**6**	**3**
21:00	21:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
21:15	21:30	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
21:30	21:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
21:45	22:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**1**	0	1	0	**1**	**2**	**1**
22:00	22:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
22:15	22:30	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	0	0	**1**	**2**	**1**
22:30	22:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
22:45	23:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
23:00	23:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
23:15	23:30	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
23:30	23:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
23:45	00:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
Total:	None	1	0	0	**2**	0	0	1	**5**	**7**	2	6	0	**14**	1	4	2	**13**	**27**	**17**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

FIFTH AVE @ O'CONNOR ST

Survey Date: Tuesday, July 26, 2022 **WO No:** 40492

Start Time: 16:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

		O'CONNOR ST	FIFTH AVE			
Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	0	0	0
16:45	17:00	0	0	0	0	0
17:00	17:15	0	0	0	0	0
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
18:00	18:15	0	0	0	0	0
18:15	18:30	0	0	0	0	0
18:30	18:45	0	0	0	0	0
18:45	19:00	0	0	0	0	0
19:00	19:15	0	0	0	0	0
19:15	19:30	0	0	0	0	0
19:30	19:45	0	0	0	0	0
19:45	20:00	0	0	0	0	0
20:00	20:15	0	0	0	0	0
20:15	20:30	0	0	0	0	0
20:30	20:45	0	0	0	0	0
20:45	21:00	0	0	0	0	0
21:00	21:15	0	0	0	0	0
21:15	21:30	0	0	0	0	0
21:30	21:45	0	0	0	0	0
21:45	22:00	0	0	0	0	0
22:00	22:15	0	0	0	0	0
22:15	22:30	0	0	0	0	0
22:30	22:45	0	0	0	0	0
22:45	23:00	0	0	0	0	0
23:00	23:15	0	0	0	0	0
23:15	23:30	0	0	0	0	0
23:30	23:45	0	0	0	0	0
23:45	00:00	0	0	0	0	0
Total		0	0	0	0	0

5589707 - BANK ST @ AYLMER AVE - OCT 14 2022 - TMC

TueMay3, 20F00

Tl ILngt hy G A F - 9 I33AF - 9 P

) ILCIs i igi Gneh(yi st d 9 oyoural gi 2c gsH 2- gdgi yust i 2v enr al gi ot Bosd2v enr al gi ot CuoiiRs lwP

) IL9 oHgk gt yi

ni A3FF0D342n oasyot A, 78 47521 785D, 3. 52b egg CodgA, F53, 3F:

- uoHdlgd f r ACeyr oOMysRs 3FF Cot i ygIlsyot I u2 Ngpgst 2MN2K0G 7J42C)

ngh I augayot	Nouy(bol y(f ol t d					bol y(Nouy(f ol t d					E gi y Ssiy f ol t d					
Wek g	B	W	U	) pp	- gd*	W	n	U	) pp	- gd*	B	n	U	) pp	- gd*	my
0F0033F3, : AF- 9	35	347	F	**033**	D	3, F	7	F	**3, 7**	3:	:	30	F	**37**	,5	**:. 3**
: A7- 9	3,	3Ω	F	**34D**	3:	3. 5	0	F	**3. D**	30	:	0F	F	**0:**	,.	**: 44**
c ol ufc W oysL	: F	:. 4	F	**, F4**	03	: 35	.	F	**: 0:**	07	5	: 0	F	**: D**	4:	**. . F**
, AF- 9	3.	3Ω	F	**0FF**	3.	357	:	F	**35D**	35	:	3,	F	**3.**	07	**: D'**
, A7- 9	34	3D4	F	**0FD**	3D	0F3	0	F	**0F:**	3,	:	3D	F	**03**	:7	**, : 0**
, AF- 9	0,	3. .	F	**0F3**	34	3Ω	:	F	**3Ω**	3F	F	3,	F	**3,**	: F	**, F0**
, A7- 9	.	3. .	F	**3Ω**	00	3. ,	3	F	**3. 7**	07	,	34	F	**0:**	: 0	**: D0**
c ol ufc W oysL	5.	. 05	F	**. 4:**	,5	. 0,	4	F	**. : :**	57	3F	57	F	**. 7**	300	**35F3**
7AF- 9	3D	34,	F	**030**	00	340	0	F	**34,**	34	D	07	F	**: :**	:4	**, : 4**
7A7- 9	33	3D5	F	**34.**	07	3. 3	7	F	**3. 5**	3D	,	04	F	**: :**	77	**, F5**
7AF- 9	3:	3DD	F	**0F3**	D	3. ,	7	F	**3D0**	3.	D	37	F	**0:**	:7	**, F5**
7A7- 9	30	3. F	F	**3D0**	0:	3, ,	5	F	**37:**	3D	.	03	F	**0D**	5.	**: 5:**
c ol ufc W oysL	7,	. : D	F	**. 40**	.D	5D	3D	F	**. F7**	. 0	0.	4F	F	**33.**	345	**353,**
5AF- 9	37	374	F	**3. ,**	:7	3, ,	3:	F	**37.**	3:	3F	37	F	**07**	,3	**: 75**
5A7- 9	3.	3, :	F	**35F**	:4	350	:	F	**357**	34	3	05	F	**0.**	47	**: 70**
5AF- 9	3,	3, 3	F	**377**	50	37F	D	F	**37D**	05	D	07	F	**: :**	D'	**:, 5**
5A7- 9	3:	373	F	**35,**	D5	33.	7	F	**300**	74	3F	0:	F	**: :**	3: 3	**: 34**
c ol ufc W oysL	74	74,	F	**57:**	000	7. :	04	F	**5F0**	33.	04	D4	F	**33D**	: 70	**3: . :**
. AF- 9	30	35F	F	**3. 0**	, 3	35:	4	F	**3. 0**	0.	.	3,	F	**03**	D'	**: 57**
. A7- 9	37	357	F	**3DF**	: 4	305	7	F	**3: 3**	35	,	33	F	**37**	5,	**: 05**
. AF- 9	30	3, .	F	**374**	0F	334	,	F	**30:**	33	:	3D	F	**03**	0,	**: F:**
. A7- 9	37	375	F	**3. 3**	.	337	4	F	**30,**	33	3	3:	F	**3,**	: 3	**: F4**
c ol ufc W oysL	7,	50D	F	**5D0**	3F:	70:	0.	F	**77F**	57	37	75	F	**. 3**	0F,	**3: F:**
D4F- 9	4	330	F	**303**	3F	3F.	7	F	**330**	.	0	33	F	**3:**	34	**0, 5**
D47- 9	37	3: 3	F	**3, 5**	:	3F,	:	F	**3F.**	.	.	33	F	**3D**	0F	**0. 3**
DAF- 9	30	30F	F	**3: 0**	00	3F0	5	F	**3FD**	D	3	33	F	**30**	:.	**070**
DA7- 9	4	3F0	F	**333**	,	3FF	,	F	**3F,**	F	3	5	F	.	03	**000**
c ol ufc W oysL	, 7	, 57	F	**73F**	:4	, 3:	3D	F	**, : 3**	00	33	: 4	F	**7F**	4,	**443**
4AF- 9	3F	4,	F	**3F,**	3	LD	:	F	**43**	.	0	5	F	**D**	0:	**0F:**
4A7- 9	:	D	F	**D**	D	47	,	F	**44**	3	7	D	F	**3:**	04	**344**
4AF- 9	5	. 7	F	**D8**	,	. .	3	F	**. D**	.	:	D	F	**33**	37	**3. F**
4A7- 9	:	55	F	**54**	3.	4,	,	F	**4D**	30	:	:	F	**5**	5,	**3. : **
c ol ufc W oysL	00	: 34	F	**: , 3**	: F	: 7,	30	F	**: 55**	0,	3:	07	F	**: D**	3: 3	**. , 7**
3FAF- 9	7	5F	F	**57**	07	. 0	5	F	**. D**	3D	0	,	F	**5**	: 4:	**3, 4**
3FA7- 9	4	. 3	F	**DF**	3.	4:	:	F	**45**	0F	7	7	F	**3F**	D,	**3D5**
3FAF- 9	7	43	3	**4.**	,	5,	:	F	**5.**	7	7	5	F	**33**	05	**3. 7**
3FA7- 9	30	30.	F	**3: 4**	4	. :	3	F	**. ,**	:	0	,	F	**5**	00	**034**
c ol ufc W oysL	: 3	: , 4	3	**: D8**	77	: F0	3:	F	**: 37**	, 5	3,	34	F	**: :**	707	**. 04**
33AF- 9	7	30F	F	**307**	7	5F	,	F	**5,**	0	0	7	F	.	0:	**345**
33A7- 9	7	D0	3	**DD**	0	5D	F	F	**5D**	:	3	,	3	**5**	0.	**350**
c ol ufc W oysL	3F	0F0	3	**03:**		30D	,	F	**3: 0**	7	:	4	3	**3:**	7F	**: 7D**
W oysL	: . 0	, , FF	0	**, . . ,**	5: 7	, F0F	3: .	F	**, 37.**	, , 3	30D	, 0,	3	**77:**	3. 5.	**4, D**
%) ppuosa(	. 8 3%	408 F%	F%	**1**	1	458 %	: 8 %	F%	**1**	1	0: 8 8%	. 58 %	F8 F%	**1**	1	1
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neh(yi st d 9 oyoural gi	: 7.	, 3: 3	0	**, , 4F**	1	: . 5D	3: 7	F	**: 4F:**	1	30:	, 37	3	**7: 4**	1	D4: 0
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c gs H:	,	3, .	F	**373**	1	3: 7	0	F	**3:.**	1	F	0	F	**0**	1	04F
% c gs H:	38 F%	: 8 %	F%	**: 8 F%**	1	: 8 %	38 F%	F%	**: 8 %**	1	F%	F8 F%	F%	**F8 %**	1	: 8 F%
v enr al gi ot Bosd	33	300	F	**3: :**	1	33.	F	F	**33.**	1	7	.	F	**30**	1	050
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- gdgi yust i	1	1	1	1	53:	1	1	1	1	, : 0	1	1	1	1	3. , F	
% - gdgi yust i	1	1	1	1	458 F%	1	1	1	1	4D8 F%	1	1	1	1	4D 8 F%	1
v enr al gi ot CuoiiRs lw	1	1	1	1	00	1	1	1	1	4	1	1	1	1	0.	

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% v enr al gi ot CuoiiRs lw	1	1	1	1	: 8 F%	1	1	1	1	08 F%	1	1	1	1	38 F%	1

*- gdgi yust i st d v enr al gi ot CuoiiRs lw8n Ang@2BABeh(y2WAW(ul 2UAUIWl ut

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Sat May 7, 20FuFF
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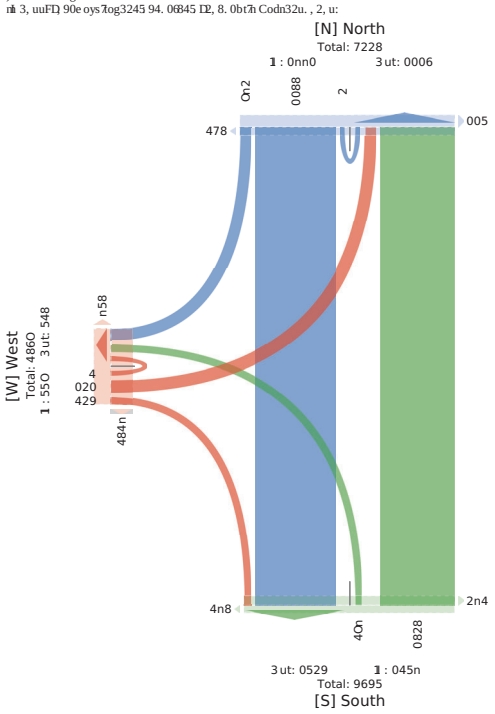
nli 3, uuFE) 90e oys7tog3245 94. 06845 D2, 8. 0bt7h Codn32u. , 2, u:



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5589707 - BANK ST @ AYLMER AVE - OCT 14 2022 - TMC

Tue May 3, 20F00
l L l ngt h, (36 l L : 6(36 l L A: M- nug9l ngt 1 P) u
C9s 5gi i ni hl eor yi gc HL PyPuava9hi 21 ng- v2l nHni yurgci 2Bauva9hi Pc RPgH2Bauva9hi Pc
s uPi i wg9 l A
C9l L P- nk ncyi
nli (3FF0D342d PagyePc(, 67846 52:. 67.5D, 3. 52be yn s PHn(, F53, 3F8

dno l auayePc	NPyar bP) yr f P) cH				bP) yr NPyr f P) cH				E ni y Sgi yf P) cH				
Vek n	R	W	U	**Cpp**	l nl*	W	d	U	**Cpp**	l nl*	R	d	U	**Cpp**	l nl*	**ny**
0F00: 3F:3, , (36 l L	34	3D4	F	**0FD**	3D	0F3	0	F	**0F8**	3,	8	3D	F	**03**	86	**, 80**
, (8Fl L	0,	3. .	F	**0F3**	34	3Ω	8	F	**3D.**	3F	F	3,	F	**3,**	8F	**, F0**
, (, 6l L	.	3. .	F	**3Ω**	00	3. ,	3	F	**3. 6**	06	,	34	F	**08**	80	**8D0**
6(FFl L	3D	34,	F	**030**	00	340	0	F	**34,**	34	D	06	F	**88**	84	**, 84**
WPyg9	5D	. 8.	F	**DF6**	D8	, 63	D	F	**. 64**	5D	36	. 5	F	**43**	385	**3566**
% CppuPgar	D[%	437.5%	F%	**:**	:	4D8%	378%	F%	**:**	:	357.6%	D87.6%	F%	**:**	:	:
% WPyg9	, 7.%	, , 76%	F%	**, D5%**	:	, 67, %	F76%	F%	**, 67.%**	:	F7#%	, 7.%	F%	**67.5%**	:	:
l l T	F7545	F7#, 5	:	**F7I6F**	:	F740D	F755.	:	**F7I04**	:	F7, F5	F7 6F	:	**F755.**	:	F7485
dexryi gcHL PyPuava9hi	58	54D	F	**. 53**	:	, F.	D	F	**. 36**	:	38	. 8	F	**D5**	:	3650
% dexryi gcHL PyPuava9hi	405%	4, 7 %	F%	**4, 75%**	:	4, 75%	3FF%	F%	**4, 70%**	:	D57 %	4578%	F%	**4, 76%**	:	4, 7 %
1 ng- v	3	3,	F	**3D**	:	38	F	F	**38**	:	F	0	F	**0**	:	88
% 1 ng- v	376%	078%	F%	**070%**	:	37 %	F%	F%	**37 %**	:	F%	07.5%	F%	**070%**	:	07#%
Bauva9hi Pc RPgH	,	00	F	**05**	:	83	F	F	**83**	:	0	3	F	**8**	:	5F
% Bauva9hi Pc RPgH	67#%	87#%	F%	**870%**	:	, 75%	F%	F%	**, 75%**	:	387#%	378%	F%	**875%**	:	875%
l nHni yurgci	:	:	:	: 5		:	:	:	:	55	:	:	:	:	388	
% l nHni yurgci	:	:	:	: 487.3%		:	:	:	:	4, 75%	:	:	:	:	4, 7.D%	:
Bauva9hi Pc s uPi i wg9 l	:	:	:	: 6		:	:	:	:	0	:	:	:	:	8	
% Bauva9hi Pc s uPi i wg9 l	:	:	:	: 57.9%		:	:	:	:	07#%	:	:	:	:	07.0%	:

*l nHni yurgci gc HBauva9hi Pc s uPi i wg9 l 7d(d nQ2R(Rcor y2W(W u) 2U(U: Wj uc

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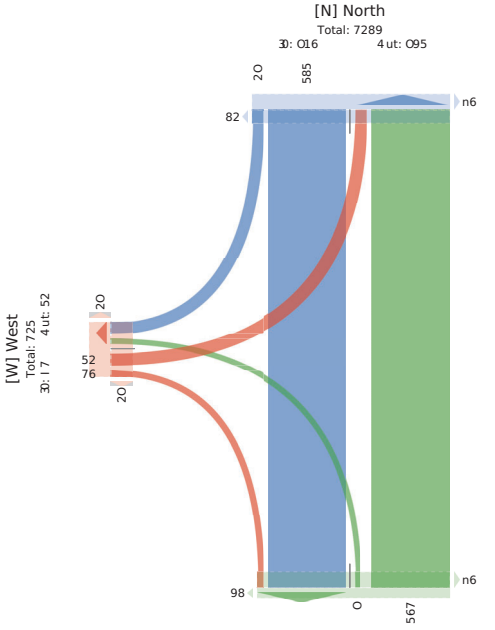
Sat May 7, 20FuFF
l L l eng h2(, 1 l L : 1(, 1 l L 3: MAean– l eng 6 P) a
C– s -ni i ei hl tor 7i ncHL P7Payvy-ei 06 enAw0l eHei 7atnci 0Btyvy-ei Pc RPnH0Btyvy-ei Pc
s aPi i wn-g3
C– L PAek ec7i
nli (, uuFE) 90d Pyn7tPc(214591. 0:814 D2, 8. 0bt7e s PHe(2u. , 2, u5



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Tue May 3, 20F00
Tl ILngt hy(6 AF - 9 133AF - 9 P
) ILCIs i i gi 6n eh(yi st d 9 oyour algi 2c gsH 2- gdgi yust i 2v eur algi ot Bosd2v eur algi ot
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nli A3FF0D342n oasyot A, 78 57D4521478 D(: : , 2begg CodgA, F. 3: 3F:

ngh l ngayeot	Noay(bol y(f ol t d					Esiy S gi y(f ol t d					bol y(Noay(f ol t d					S gi y Esi y(f ol t d					
Vek g	B	W	n	U	) pp - gl*	B	W	n	U	) pp - gl*	B	W	n	U	) pp - gl*	B	W	n	U	) pp - gl*	**ny**
0F00 I3FD, : AF- 9	F 35,	3	F	**357**	F	, F	: F		**4**	3.	3 37.	F F		**374**	F	34	F F	F	**34**	70	**: 4.**
: A7- 9	3 3D4	0	F	**35F**	3	, F	F F		**,**	3F	, 35F	F F		**35,**	F	0F	F F	F	**0F**	7.	**, FD**
c ol ulz Woy.l	3 : D8	:	F	**: D7**	3	D F	: F		**33**	0:	7 : , ,	F F		**: 73**	F	: 4	F F	F	**: 4**	3FD	**4D**
, AF- 9	F 3DD	0	F	**35F**	3	: F	3 F		**,**	00	, 34D	F F		**3DD**	F	3.	F F	F	**3.**	: :	**: 50**
, A7- 9	3 35,	F	F	**357**	F	D F	: F		**33**	07	, 03.	F F		**00F**	F	00	F F	F	**00**	, D	**, , D**
, AF- 9	F 0F7	0	F	**0F4**	F	, F	: F		**5**	73	, 35,	F F		**35D**	F	3.	F F	F	**3.**	: ,	**, : F**
, A7- 9	F 34:	,	F	**344**	3	5 F	3 F		**3F**	7F	7 350	F F		**354**	3	3.	F F	F	**3.**	7:	**, FF**
c ol ulz Woy.l	3 4. F	D	F	**4. 5**	0	0. F	D F		**:,**	3, D	34 4D F	F		**454**	3	4F	F F	F	**4F**	3. D	**3. 4F**
7AF- 9	F 033	:	F	**03,**	F	D F	3 F		**5**	40	, 03:	F F		**034**	F	3,	3 3	F	**3.**	, ,	**, 7.**
7A7- 9	F 3D8	:	F	**3D,**	0	7 F	3 F		**.**	D	7 357	F F		**0FF**	F	35	F F	F	**35**	.F	**, F5**
7AF- 9	F 350	0	F	**35,**	:	3 F	F F		**3**	7:	, 3D	F F		**3DD**	F	0:	F F	F	**0:**	: 5	**, F.**
7A7- 9	F 3. D	:	F	**343**	F	: F	0 F		**7**	.3	0 37:	F F		**377**	F	3.	F F	F	**3.**	77	**: , 4**
c ol ulz Woy.l	F 470	33	F	**4. :**	7	34 F	, F		**03**	0. 5	37 4, 7	F F		**4. F**	F	40	3 3	F	**4,**	35D	**3. 3D**
. AF- 9	F 3, .	0	F	**3, D**	F	0 F	0 F		**,**	304	7 3, 5	F F		**37,**	F	0D	F 3	F	**05**	. .	**: : 7**
. A7- 9	F 3: D	3	F	**3: 5**	,	F F	3 F		**3**	340	3 353	F F		**350**	F	00	F F	F	**00**	50	**: 7,**
. AF- 9	F 3: D	3	F	**3: 5**	3	: F	F F		**:**	: FF	3 343	F F		**340**	F	35	3 F	F	**0F**	. 5	**: : ,**
. A7- 9	3 3: D	0	F	**3, 3**	4	F F	0 F		**0**	: 0,	, 3: 4	F F		**3, 3**	F	0.	F 3	F	**04**	. F	**: 33**
c ol ulz Woy.l	3 7. F	.	F	**7. 4**	30	7 F	7 F		**3F**	50:	33 , , D	F F		**. 75**	F	57	3 0	F	**5D**	0. 4	**3: : ,**
4AF- 9	F 37D	3	F	**375**	F	F F	F F		**F**	0F:	3 34.	F F		**344**	0	3D	F F	F	**3D**	74	**: 7,**
4A7- 9	F 3. D	,	F	**340**	F	3 F	3 F		**0**	3, .	3 3: 5	F F		**3, F**	F	37	F :	F	**3D**	7D	**: : 0**
4AF- 9	F 37F	3	:	**37,**	7	0 F	3 F		**:**	D	0 3: ,	F F		**3: .**	F	5	F 3	F	**3F**	: F	**: F:**
4A7- 9	F 374	:	F	**3, F**	3	0 F	0 F		**,**	70	3 30D	F F		**305**	F	30	F F	F	**30**	, 4	**: F7**
c ol ulz Woy.l	F . : :	5	:	**. , 7**	.	7 F	, F		**5**	, D	7 744	F F		**7D**	0	7,	F ,	F	**7D**	350	**305,**
DAF- 9	F 33.	0	3	**335**	F	: F	F F		**:**	7.	3 334	F F		**33D**	F	30	F 3	F	**3:**	34	**07:**
DA7- 9	F 3: ,	:	F	**3: 4**	3	, F	: F		**4**	05	0 33:	F F		**337**	F	3,	F F	F	**3,**	: 3	**04:**
DAF- 9	3 30F	F	F	**303**	F	0 F	F F		**0**	. ,	F 330	F F		**330**	F	5	F F	F	**5**	: .	**0, ,**
DA7- 9	F 3F0	0	F	**3F,**	F	0 F	3 F		**:**	: 5	3 3F.	F F		**3F4**	F	D	F F	F	**D**	: F	**000**
c ol ulz Woy.l	3 , 40	4	3	**, D8**	3	33 F	. F		**37**	3D3	, , , D	F F		**, 70**	F	. :	F 3	F	**, ,**	33,	**550**
5AF- 9	F 5,	0	F	**5.**	F	: F	F F		**:**	, F	3 5:	F F		**5,**	F	33	F F	F	**33**	0.	**0F,**
5A7- 9	3 45	0	3	**D**	F	0 F	F F		**0**	4D	F 3F0	F F		**3F0**	D	4	F F	F	**4**	: 0	**35,**
5AF- 9	F 4D	3	0	**D8**	F	0 F	F F		**0**	: 3	F D0	F F		**D0**	F	5	F F	F	**5**	00	**345**
5A7- 9	F 4F	0	F	**40**	F	3 F	F F		**3**	4F	F 5,	F F		**5,**	D	0	F F	F	**0**	4D	**3. 5**
c ol ulz Woy.l	3 : 03	4	:	**: : 0**	F	D F	F F		**D**	035	3 : 4.	F F		**: 44**	3D	05	F F	F	**05**	37D	**4, .**
3FAF- 9	F 74	F	F	**74**	F	F F	: F		**:**	3DF	0 40	F F		**4,**	7.	.	F F	F	**.**	: 7,	**3, F**
3F A7- 9	F 43	F	3	**40**	F	F F	0 F		**0**	: 3	3 57	F F		**5.**	03	34	F F	F	**34**	D	**3D0**
3FAF- 9	F 50	F	3	**5:**	3	: F	0 F		**7**	5,	0 . .	F F		**. D**	F	4	F F	F	**4**	: 4	**34:**
3FA7- 9	F 30.	F	F	**3D.**	F	F F	F F		**F**	, D	F 44	F F		**44**	F	4	F 3	F	**D**	: 3	**033**
c ol ulz Woy.l	F : , .	F	0	**: , D**	3	: F	4 F		**3F**	: 7:	7 : 3F	F F		**: 37**	44	: 4	F 3	F	**: D**	: FD	**433**
33AF- 9	F 337	3	F	**33.**	F	3 F	F F		**3**	0:	3 . 7	F F		**. .**	3	5	F F	F	**5**	03	**350**
33A7- 9	F D	F	F	**D**	F	F F	F F		**F**	07	F 4,	F F		**4,**	.	7	F F	F	**7**	34	**3. 0**
c ol ulz Woy.l	F 35D	3	F	**355**	F	3 F	F F		**3**	, D	3 3: 5	F F		**3, F**	4	3,	F F	F	**3,**	: D	**: 7,**
Woy.l	7 , , 0:	70	5	**, D5**	0D	D F	: 7	F	**335**	0. 77	. , : . 5	F F		**, , : :**	3F7	, 73	0 5	F	**, . 0**	3D3	**57F:**
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c gsH	F 3, .	F	F	**3, .**	**1**	F F	3 F		**3**	**1**	F 3, 3	F F		**3, 3**	**1**	3	F F	F	**3**	**1**	**0D5**
% c gsH	F% : 8 %	F%	F%	**: 8 %**	**1**	F% F%	0 8%	F%	**F8D%**	**1**	F% : 8%	F% F%		**: 8%**	**1**	F8%	F%	F% F%		**F8D%**	**1**	: 8%
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Ottawa
- uoHdgd f r ACer oOMysRs
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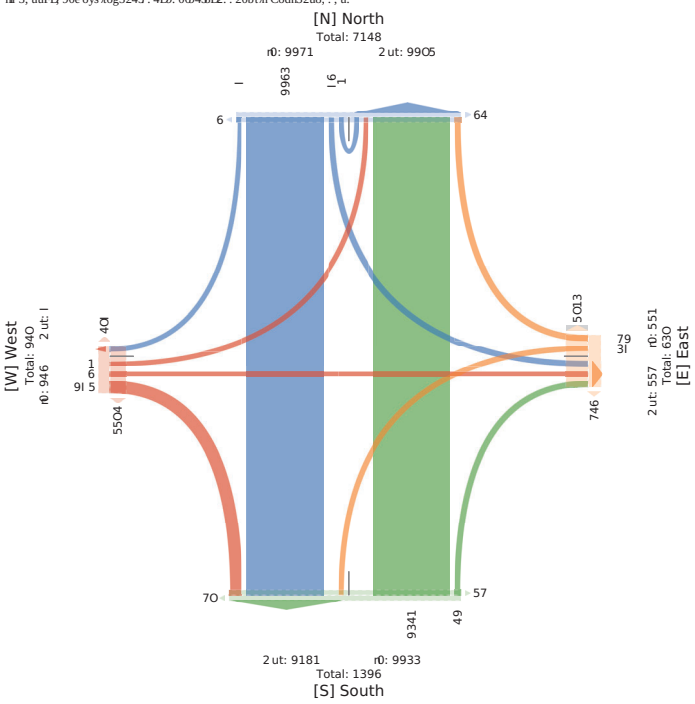
5589707 - BANK ST @ ECHO DR - OCT 14 2022 - TMC

Sat May 7, 2022



5589707 - BANK ST @ ECHO DR - OCT 14 2022 - TMC

Tue May 3, 2022

dno I nnavayPc	NPayr bP) yr f P) cH					Egiy S niy f P) cH					bP) yr NPayr f P) cH					S niy Egiy f P) cH					
Vek n	R	W	d	U	Cpp	l nlP	R	W	d	U	Cpp	l nlP	R	W	d	U	Cpp	l nlP	R	W	d	U	Cpp	l nlP	my
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, (8Fl L	F	0F6	0	F	0F4	F	.	F	8	F	5	63	,	35,	F	F	35D	F	3.	F	F	F	3.	8,	, 8F
, (, 6l L	F	348	,	F	344	3	5	F	3	F	3F	6F	6	350	F	F	354	3	3.	F	F	F	3.	68	, FF
6(FFl L	F	033	8	F	03,	F	D	F	3	F	5	40	,	038	F	F	034	F	3,	3	3	F	3.	, .	, 6.
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l 1 T	: F588		F7, 8D		: F588	:	F7 6.	:	F6DB		: F84D	:	F7 DD	F58D		:	F5, 0	:	F7L 3	F D6F	F D6F	:	F7L	:	F585
deor yi gc HL PyPuava9hi	F	4, F	4	F	4, 4	:	03	F	4	F	0D	:	33	4. 5	F	F	4DF	:	. 4	3	3	F	. 5	:	3. 0,
% deor yi gc H L PyPuava9hi	F% 5, 7%		44	7D%	F%	5, 7%	. 47%	F%	D6	7%	F%	437	D%	:	, 7%	5, 7 %	F%	F%	58	7D%	:	5D	6%	3FF%	3FF%	F%	5DF %	:	587	4%
1 ng-v	F	3D	F	F	3D	:	F	F	F	F	F	:	F	36	F	F	36	:	F	F	F	F	F	:	88
% 1 ng-v	F%	0F8%	F%	F%	0F8%	:	F%	F%	F%	F%	F%	:	F%	3D%	F%	F%	3D%	:	F%	F%	F%	F%	F%	:	35%
Bauva9hi Pc RPgH	3	06	0	F	0D	:	3F	F	3	F	33	:	,	83	F	F	84	:	3	F	F	F	3	:	44
% Bauva9hi Pc RPgH	3FF%	87D%	00	7D%	F%	87 6%	807	F%	307	6%	F%	0D	30%	:	867	8%	87D%	F%	F%	, 7 %	:	37	6%	F%	F%	37 %	:	, 7 %
l nHu yugci	:	:	:	:	:	3	:	:	:	:	:	35D	:	:	:	:	:	F	:	:	:	:	:	3. ,	
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Bauva9hi Pc s uPi i wgH	:	:	:	:	:	F	:	:	:	:	:	F	:	:	:	:	:	3	:	:	:	:	:	38	
% Bauva9hi Pc s uPi i wgH	:	:	:	:	:	F%	:	:	:	:	:	F%	:	:	:	:	:	3FF%	:	:	:	:	:	47	8%	:

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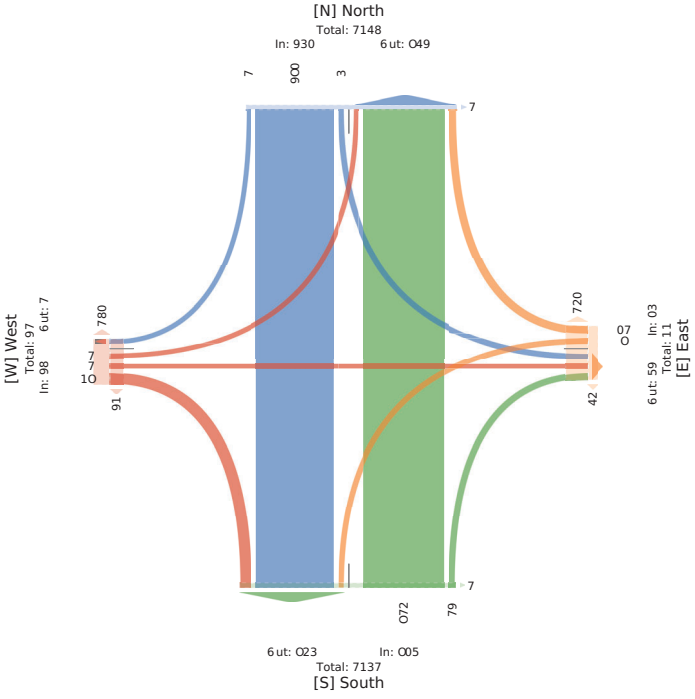
Sat May 7, 2022



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Tue May 3, 2022

ngh I nagayyot	Nouy(bol y(f o l t d					- gd*	Esi y S giy f o l t d					- gd*	bol y(Nouy(f o l t d					- gd*	
Vek g	W	n	U	) pp			B	n	U	) pp			B	W	U	) pp			my
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: A 4- 9	88	: 4	3	3: 4	0,		00	0.	F	, D	55		: 4	3F.	F	3, 3	38		: 0,
c ol ulr W oysL	03,	. D	3	0D	. :		: 4	, 8	F	D	300		. ,	0FF	F	0. ,	: :		. : 3
, A F- 9	334	: 4	F	34F	. :		33	: 5	F	, D	D		0D	8D	3	305	05		: 04
, A 4- 9	335	, :	3	3, 3	43		3D	03	F	: 8	D8		: 5	3: 0	F	3. 8	05		: . 8
, A F- 9	33.	, :	3	3, F	. ,		3.	0D	F	, ,	8:		: D	33D	3	345	05		: . 3
, A 4- 9	3: 0	: :	4	35F	D		38	0,	F	, :	3, F		: ,	33D	F	340	: 4		: . 4
c ol ulr W oysL	, DF	34,	5	. , 3	0. 3		. ,	33F	F	35,	, F0		3: 5	, . .	0	. F4	33.		3, 0F
4 A F- 9	348	33	0	350	3F4		3D	0:	F	, 3	335		0,	343	3	35.	, .		: D8
4 A 4- 9	308	F	F	308	33D		F	F	F	F	34.		:	350	F	354	: F		: F,
4 A F- 9	3, :	F	F	3, :	3, 8		F	F	F	F	38F		F	358	F	358	, .		: 00
4 A 4- 9	3: 8	F	F	3: 8	30.		F	3	F	3	0F0		F	3. 0	F	3. 0	. 8		: F0
c ol ulr W oysL	45F	33	0	4D	, 8D		3D	0,	F	, 0	. . 4		05	. . ,	3	. 80	038		3: 35
, A F- 9	3, D	F	F	3, D	0, .		F	F	3	3	00D		F	3. 5	F	3. 5	4,		: 3,
, A 4- 9	344	F	F	344	0DF		F	F	F	F	04F		F	350	F	350	4F		: 05
, A F- 9	3: F	F	3	3: 3	0. 4		F	F	F	F	034		F	35:	F	35:	. :		: F,
, A 4- 9	3, 8	F	3	34F	, F.		F	F	F	F	0F.		F	3: .	F	3: .	4.		0D
c ol ulr W oysL	4DD	F	0	4D	3034		F	F	3	3	DB8		F	. , D	F	. , D	00.		30: :
5 A F- 9	34,	F	3	344	0. ,		F	F	F	F	3: 5		F	3. .	F	3. ,	, 3		: 03
5 A 4- 9	344	F	F	344	0FF		F	F	F	F	D8		F	35F	F	35F	, F		: 04
5 A F- 9	3, 0	F	F	3, 0	58		F	F	F	F	D,		F	3, 3	F	3, 3	: F		0D
5 A 4- 9	300	F	F	300	4F		3	F	F	3	. 3		F	303	F	303	: F		0, ,
c ol ulr W oysL	45:	F	3	45,	484		3	F	F	3	: 53		F	48D	F	48D	3, 3		335:
D F F- 9	33,	F	F	33,	: 5		F	F	F	F	, F		F	304	F	304	, 3		0: 8
D 8 4- 9	300	F	0	30,	, 8		F	F	F	F	50		F	33F	F	33F	, 4		0: ,
D A F- 9	8D	F	F	8D	53		F	F	F	F	D,		F	333	F	333	04		0F8
D A 4- 9	8:	F	F	8:	: ,		F	3	F	3	4.		F	D0	F	D0	04		35.
c ol ulr W oysL	, 05	F	0	, 08	38:		F	3	F	3	04,		F	, 0D	F	, 0D	3: ,		D4D
8 A F- 9	8F	F	F	8F	. F		F	F	F	F	D8		F	30,	F	30,	, 3		03,
8 A 4- 9	3FF	F	F	3FF	: D		F	F	F	F	30.		F	3F0	F	3F0	03		0F0
8 A F- 9	85	F	3	8D	53		F	F	F	F	3FD		F	8.	F	8.	43		38,
8 A 4- 9	D8	F	F	D8	3, :		F	F	F	F	00F		F	D,	F	D,	4D		3. 4
c ol ulr W oysL	: . D	F	3	: . 8	: 30		F	F	F	F	4, :		F	, F.	F	, F.	353		554
3 FA F- 9	43	F	F	43	, , 5		F	F	F	F	44.		F	D8	F	D8	: F4		3: 0
3 FA 4- 9	D0	F	F	D0	8.		3	F	F	3	3. 8		F	8F	F	8F	5F		35:
3 FA F- 9	33D	3	F	338	. D		:	3	F	,	335		F	84	F	84	4.		03D
3 FA 4- 9	D8	8	F	8D	: 4		4F	33	F	. 3	8D		4	. D	F	5:	: 3		0: 0
c ol ulr W oysL	: , F	3F	F	: 4F	, , :		4,	30	F	. .	8, F		4	: : ,	F	: : 8	, , 0		544
33A F- 9	4,	: .	3	83	: 3		08	: 3	F	. F	, 5		3,	, 8	,	. 5	30		03D
33A 4- 9	43	38	3	53	0.		00	0:	F	, 4	4D		35	, D	3	. .	: 3		3D0
c ol ulr W oysL	3F4	44	0	3. 0	45		43	4,	F	3F4	3F4		: 3	85	4	3: :	, :		, FF
W oysL	: . 48	08D	3D	: 854	: D :		00:	04F	3	, 5,	, : F3		0. ,	: D 3	D	, 33:	34, 5		D4. 0
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c gsH	3, 0	3	F	3, :		1	F	:	F	:		1	:	3: 0	F	3: 4		1	0D8
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v eur algi ot Cuoi i Rs lwP	1	1	1	1	00		1	1	1	1	38		1	1	1	1	04		

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% v enr alg i ot Cuoi i Rs lw	1	1	1	1	F7. %	1	1	1	1	F7. %	1	1	1	1	37. %	1

*- gdgi yust i st d v enr alg i ot Cuoi i Rs lw7 n An g@2BABeh(y2WAW(ul 2UALIWl ut

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Sat My7, 20FuFF

Sl lLe ngh7[I: 3 u A- 6 , 3 u A- P

) lLCls i ini le th(7i sgd - o7oayr yIni 0c nsHr 0Andni 7ats gi 0v tyr yIni og Bosd0v tyr yIni og

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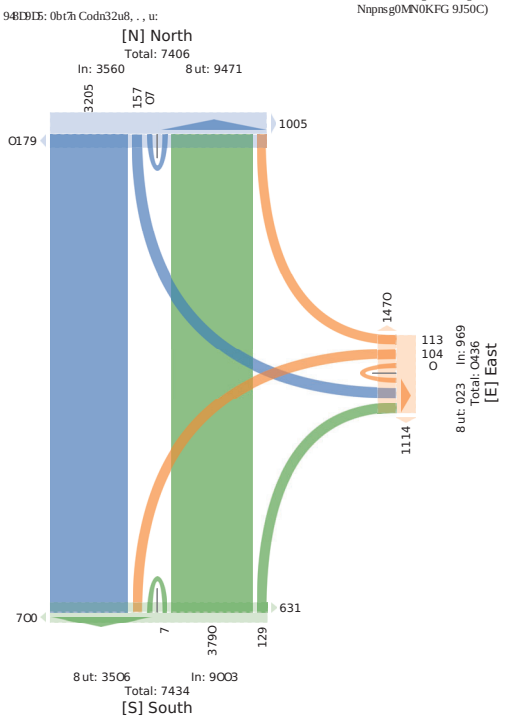

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Tue May 3, 20F00

l L l ngl h, (36 l L : 6(36 l L A: M- nug9l ngt 1 P) u

C.9s 9gi ini hl eor yi gcHL PyPuava9ni 21 ng- v2l nHhi yurgci 2Bauva9ni Pc RPgH2Bauva9ni Pc s uPi i wg9 A

C.9L P- nk nc yi

nli (3FF0D342d PagyePc (, 6748D5. , 2:567 D6D342beyn s PHn(, F. 353F4

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Wk. n	W	d	U	Cpp	l nH*	R	d	U	Cpp	l nH*	R	W	U	Cpp	l nH*	my
0F00:3F:3, , (36l L	335	, 4	3	3. 3	63	3D	03	F	48	Db	45	340	F	3. 8	05	4. 8
, (4Fl L	33.	, 4	3	3. F	. ,	3.	0D	F	, ,	84	4D	33D	3	365	05	4. 3
, (, 6l L	340	44	6	35F	D8	38	0,	F	, 4	3, F	4,	33D	F	360	46	4. 6
6(FFl L	368	33	0	350	3F6	3D	04	F	, 3	335	0,	363	3	35.	, .	4D8
WPgS	60,	34F	8	**. . 4**	4F4	53	8.	F	**3. 5**	, 46	344	638	0	**. 6,**	346	**3, D**
% CppuPgar	587F%	387. %	37. %		:	, 07F%	657F%	P%	:	:	0F7F%	587. %	F7F%		:	:
% WPgS	467F%	D0D%	F7. %	**, , 75%**	:	, 70%	. 7F%	P%	**337F%**	:	87F%	467F%	F75%	**, , 75%**	:	:
1 l T	FDBF	F56F	F7. 6F	**F7B6F**	:	F7B43	FD) D	:	**F7B, 0**	:	FD) 0	FD) 0	F6FF	**F7B35**	:	F7B, 0
d eor yi gcHL PyPuava9ni	, 86	308	8	**, 44**	:	, 5	8,	F	**3. 3**	:	30D	, 8,	0	**. 0,**	:	3, 3D
% d eor yi gcHL PyPuava9ni	8, 7F%	867P%	3FF%	**867F%**	:	8, 7. %	857F%	P%	**8. 7. %**	:	8. 70%	867P%	3FF%	**867. %**	:	867. %
1 ng- v	35	F	F	**35**	:	F	3	F	**3**	:	4	33	F	**3,**	:	40
% 1 ng- v	47P%	F%	F%	**07. %**	:	F%	37F%	P%	**F7. %**	:	07F%	07P%	F%	**07P%**	:	07P%
Bauva9ni Pc RPgH	30	3	F	**34**	:	,	3	F	**6**	:	0	3,	F	**3,**	:	4,
% Bauva9ni Pc RPgH	07F%	FD7%	F%	**07F%**	:	67. %	37F%	P%	**47F%**	:	37P%	07P%	F%	**07. %**	:	07F%
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5589707 - BANK ST @ EXHIBITION WAY - OCT 14 ... - TMC

Sat My7, 20FuFF

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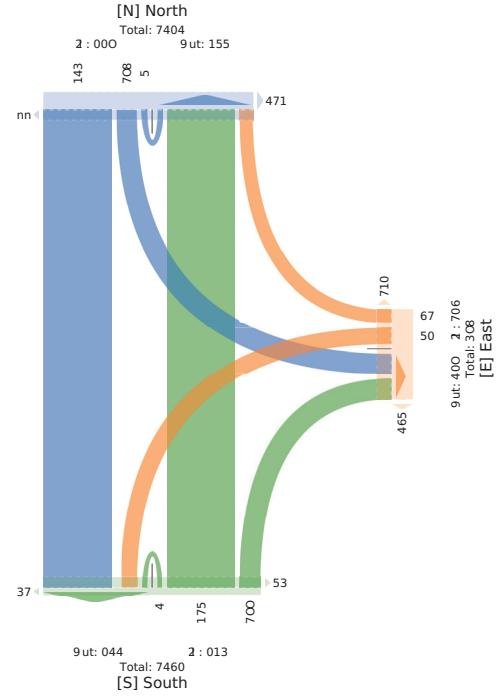

Tue May 3, 20F00

Tl ILn gt hy(6 A F - 9 I33A F - 9 P

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c ol ut e W oyst	,	34,	33	F	38J	3F	38	5	3J	F	, 0	J D	33	3D0	:	F	3J 8	0D	D	,	5	F	3J	: 8	, 08
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Sat My7, 20FuFF

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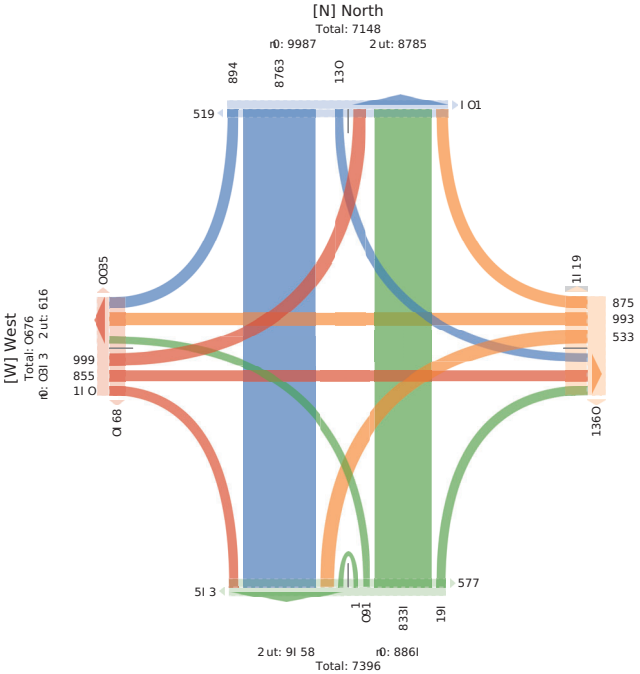

5589707 - BANK ST @ FIFTH AVE - OCT 14 2022 - TMC

Tue May 3, 20F00

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s I1 i 1gd dnd ho e cy gl dV L) y) ua Ba lnd 2P ng9 F2 I nv ndyugH2 R eaBa lnd) H w) gv2 R eaBa lnd) H

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Sat My7, 20FuFF

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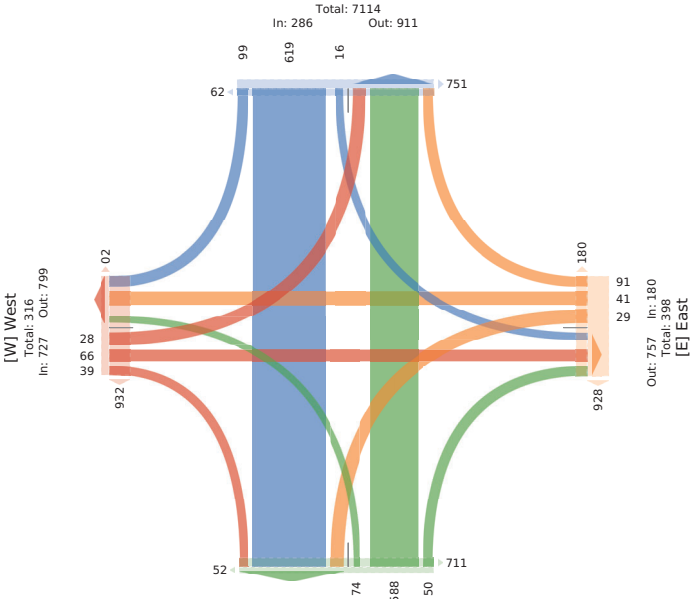

5589707 - BANK ST @ HOLMWOOD AVE - OCT 14 20... - TMC

Tue May 3, 20F00
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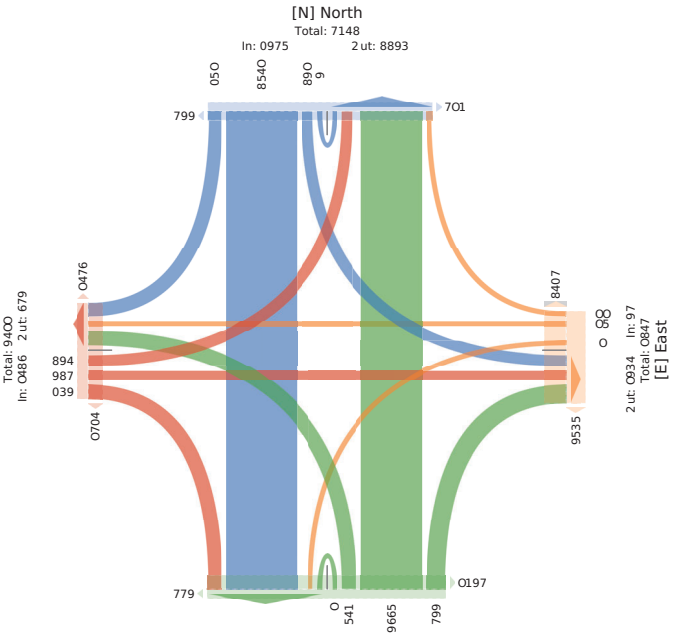
: A 4- 9	38	308	5	F	**34,**	: .			3	F	F	F	**3**	33F			03	300	33	F	**34,**	. 4			38	0	.	F	**0D**	. 8	**: : .**
c ol ufc Woys L	0D	05D	3:	F	**: F8**	45			3	F	F	F	**3**	0F9			: :	00.	0F	F	**0CF**	D1			04	5	34	F	**, 5**	88	**5: 5**
, AF- 9	.	308	4	F	**3, 3**	: 3			3	F	3	F	**0**	33F			3D	3F4	D	F	**3: 3**	40			3:	5	8	F	**0D**	: 8	**: F0**
, A4- 9	.	3,	5	F	**34.**	: F			F	F	F	F	**F**	333			3,	3,	33	F	**358**	4:			38	.	3F	F	**: 5**	. D	**: 50**
, AF- 9	0F	3: :	4	F	**34D**	04			F	F	F	F	**F**	34F			00	3: ,	35	F	**3. 0**	50			3D	4	34	F	**: D**	4D	**: 5D**
, A 4- 9	30	354	5	3	**3D**	: ,			F	F	F	F	**F**	3: ,			38	300	35	F	**34.**	. 4			35	.	30	F	**: 4**	5:	**: . 5**
c ol ufc Woys L	, 5	4. 3	00	3	**5, F**	30F			3	F	3	F	**0**	4, 4			. :	4F4	43	F	**508**	030			55	04	, 5	F	**3: .**	0FD	**3, FD**
4AF- 9	34	3, .	3F	F	**3. 0**	0,			3	F	F	F	**3**	3, F			03	3, F	33	F	**3. 0**	45			38	D	8	F	**: 5**	45	**: D8**
4A4- 9	34	33D	0F	F	**34:**	0:			F	0	F	F	**0**	3: .			, .	333	34	F	**3. :**	83			3F	30	30	F	**: ,**	D8	**: 50**
4AF- 9	.	30,	3.	F	**3, D**	. ,			F	F	F	F	**F**	383			: 3	3F5	04	F	**350**	. :			8	3F	33	F	**: F**	5D	**: , F**
4A4- 9	3.	33D	3D	F	**34:**	50			F	:	F	F	**,**	0, 8			, 0	. .	05	F	**3, 4**	85			38	30	3F	F	**, 3**	3F.	**: , 0**
c ol ufc Woys L	4,	4F.	54	F	**505**	3D			3	4	F	F	**5**	. 3,			3, 3	. : ,	. .	F	**540**	: 35			4.	, 0	, 0	F	**3, 3**	: 30	**3, 04**
5AF- 9	35	34:	3,	F	**3D**	58			3	:	F	F	**,**	0, 4			: .	300	0F	F	**3. 8**	304			3:	3F	33	F	**: ,**	300	**, FF**
5A4- 9	03	3: 0	3:	F	**355**	33,			F	F	F	F	**F**	: . :			: 5	8.	03	F	**34,**	3, 0			38	30	,	F	**: 4**	3, F	**: 44**
5AF- 9	33	30:	3.	F	**343**	8F			F	F	F	F	**F**	05D			: 5	33,	00	F	**3. 0**	03 :			3,	8	,	F	**0.**	03. :	**: 4F**
5A4- 9	0.	304	D	F	**35F**	8. :			F	F	F	F	**F**	04,			: :	.	04	F	**3: 4**	30E			35	.	.	F	**: F**	0F.	**: 04**
c ol ufc Woys L	. 4	4: :	40	F	**55F**	: . F			3	:	F	F	**,**	33, F			3, 0	, 3F	DD	F	**5, F**	555			50	: D	05	F	**305**	5D3	**3, : F**
. AF- 9	8	3: ,	3,	F	**34.**	D0			F	0	F	F	**0**	03,			04	330	35	F	**34:**	35F			00	5	3F	F	**: D**	3. F	**: 4F**
. A4- 9	03	3: 3	3.	F	**358**	. :			F	F	F	F	**F**	3. ,			4F	33:	05	F	**3D8**	30F			35	8	3F	F	**: 4**	338	**: 8:**
. AF- 9	34	3: :	3,	F	**350**	0D			F	F	F	F	**F**	35F			: :	85	34	F	**3, ,**	55			3D	3,	3:	F	**, 4**	54	**: 43**
. A4- 9	35	33,	3F	F	**3, F**	: 5			F	F	F	F	**F**	3. :			0:	DD	35	F	**30.**	40			3F	.	34	F	**: 0**	55	**088**
c ol ufc Woys L	53	430	44	F	**50D**	3D8			F	0	F	F	**0**	. 03			3: 3	, F8	. :	F	**53:**	: 8D			55	: 5	, D	F	**34F**	. 0F	**3: 8:**
DAF- 9	3D	3FF	30	F	**3: F**	: .			F	F	F	F	**F**	3F.			03	D8	35	F	**305**	: .			30	3:	D	F	**: :**	. 4	**0D8**
D A4- 9	5	3F5	D	F	**30F**	04			F	F	F	F	**F**	308			03	D1	3,	F	**338**	: F			30	30	8	F	**: :**	40	**0. 0**
DAF- 9	3F	3F0	8	F	**303**	3D			F	3	F	F	**3**	3: 0			0,	. F	30	F	**3F5**	: D			33	8	3,	F	**: ,**	45	**050**
D A 4- 9	.	. : .	3F	F	**8,**	3,			F	3	F	F	**3**	333			D	58	30	F	**D8**	. 3			30	.	30	F	**0D**	0.	**030**
c ol ufc Woys L	, 3	: D4	: 8	F	**, 54**	8,			F	0	F	F	**0**	, . 5			. .	: 30	4,	F	**, , F**	3: 5			. :	: D	. :	F	**30D**	3D	**3F: 4**
8AF- 9	38	D4	8	F	**33:**	: 3			F	F	F	F	**F**	304			0F	. 0	3.	F	**3E8**	. 4			D	D	33	F	**0.**	. 8	**0, 8**
8A4- 9	34	. :	5	F	**8,**	. :			F	F	F	F	**F**	353			0F	5F	38	F	**88**	4.			0,	3F	.	F	**, 3**	. 8	**0: ,**
8AF- 9	34	. :	D	F	**85**	: 4			5	F	F	F	**5**	35.			35	5.	35	F	**88**	. ,			05	D	.	F	**, 3**	54	**0, 0**
8A4- 9	03	5.	D	F	**85**	: D			F	F	F	F	**F**	04,			38	4F	8	F	**. D**	40			3D	.	3F	F	**: 4**	83	**0F8**
c ol ufc Woys L	. F	08D	: 3	F	**: 88**	3, .			5	F	F	F	**5**	. F			. 4	0, 8	53	F	**: D4**	384			. 5	: :	: 4	F	**3, ,**	04,	**8: ,**
3FAF- 9	3:	, D	D	F	**58**	D			F	F	F	F	**F**	: . 4			3F	5.	5	3	**D,**	3. 3			.	0	34	F	**0,**	: . 0	**3. .**
3F A4- 9	34	5D	D	F	**83**	4D			F	F	F	F	**F**	0D			3,	5:	34	F	**80**	8,			35	.	8	F	**: 0**	300	**034**
3FAF- 9	30	D	5	F	**3F4**	, 8			F	:	F	F	**:**	0F.			3,	. 8	38	F	**330**	43			00	4	33	F	**: D**	5:	**04D**
3FA 4- 9	0:	D	D	F	**334**	5F			F	F	F	F	**F**	3: F			3:	D0	00	F	**33.**	3.			0F	4	D	F	**: :**	: 3	**054**
c ol ufc Woys L	5:	0D	: F	F	**: DF**	04,			F	:	F	F	**:**	883			43	083	50	3	**, F4**	: : :			54	38	, :	F	**30.**	4D3	**834**
33AF- 9	D	. ,	33	3	**8,**	3.			F	F	F	F	**D**	D			0	. 4	30	F	**D8**	: D			8	F	35	F	**04**	: 8	**0FD**
33A4- 9	4	55	:	F	**. ,**	D			3	F	F	F	**3**	44			F	D	D	F	**83**	3.			8	F	5	34	: :		**33D**
c ol ufc Woys L	3:	3, F	3,	3	**35D**	04			3	F	F	F	**3**	3: 4			0	34D	0F	F	**3CF**	44			3D	F	00	F	**, F**	0	**: D8**
Woys L	, 43	: 4F3	: 03	0	**, 0. 4**	3, : D			33	34	3	F	**0.**	45: 0			. 00	0884	4F5	3	**, 00,**	0: 88			. D D	0: .	: 0F	F	**3F: 8**	0D8	**8454**
%) ppunxa(	3F3F%	D3D%	. 7%	P%	**1**	: ,			F2 %	447.5%	: 2 %	P%	**1**	: ,			3, 78%	F3F%	303F%	P%	**1**	: ,			L 52 %	00 D%	: FD%	P%	**1**	: ,		
% Woys L	: 2 % : 55%		: 2 %	P%	**, , 2 %**	1			F2F%	FD0%	P%	P%	**F2 %**	1			. 24% : 32 %		42 %	P%	**, , D%**	1			43F%	03F%	: 2 %	P%	**3F2 8%**	1	
neh(yi st d 9 oyour algi	, , :	: 080	: 3D	3	**, F4,**	1			:	3	F	F	**,**	1			. 0F	0D8,	, 83	3	**, F05**	1			, . 0	005	: 3.	F	**3F34**	1	8F88
% neh(yi st d 9 oyour algi	8D3D%	8. 3%	88 73%	4F3%	**8, 2D%**	1			0. 2 %	57 %	P%	P%	**3, 1D%**	1			887 %	8, 3%	8. 3%	3F P%	**842 %**	1			8. 3%	842 %	88 73%	P%	**8. 2 %**	1	842%
c gs H	3	3, 3	3	F	**3, :**	1			F	F	F	F	**F**	1			F	3: ,	8	F	**3, :**	1			:	3	:	F	.	1	08:
% c gs H	F D%	, F%	F7 %	P%	**: 2 %**	1			F%	P%	P%	P%	**F%**	1			F%	, 2%	3D%	P%	**: 2 %**	1			F5%	F2 %	F8%	P%	**F2 %**	1	: 3%
v ear algi ot Bosd	.	5D	0	3	**. D**	1			D	3,	3	F	**0:**	1			0	, .	5	F	**44**	1			.	3F	F	F	**3.**	1	3. :
% v ear algi ot Bosd	3F5%	3F8%	F5%	4F3%	**3D3%**	1			0. 2 %	8: 2 %	3F P%	P%	**D0D%**	1			F2 %	3F5%	3F0%	P%	**3F %**	1			3. 4%	, F%	P%	P%	**3F5%**	1	3D3%
- gdgi yuest i	1	1	1	1	1	3, 08			1	1	1	1	1	453.			1	1	1	1	1	0: 53			1	1	1	1	1	0. 8:	
% - gdgi yuest i	1	1	1	1	1	1 887 %			1	1	1	1	1	1 887 %			1	1	1	1	1	1 803 %			1	1	1	1	1	1 88 2%	1
v ear algi ot Cuoi i Rs lw	1	1	1	1	1	8			1	1	1	1	1	38			1	1	1	1	1	: D			1	1	1	1	1	05	
% v ear algi ot Cuoi i Rs lw	1	1	1	1	1	F 75%			1	1	1	1	1	F 2 %			1	1	1	1	1	375%			1	1	1	1	1	F 8%	

*- gdgi yuest i st d v ear algi ot Cuoi i Rs lw7n An gG2B ABeh(y2 WAW(ul 2U ALJ 1W u t

5589707 - BANK ST @ HOLMWOOD AVE - OCT 14 20... - TMC

Sat My7, 20FuFF
Sl ILe ngh7[I: 3 u A- 6 , 3 u A- P
) ILCIs i i ni le th(7i sgd - o7oayr yIni 0c nsH r 0Andni 7ats gi 0v tyr yIni og Bosd0v tyr yIni og
Caoi i Rs lwP
) IL- oHnk ng7i
nh 3, uuFD, F0e oys 7og 3294 55D5. 06B94 D 9. : 0bt7h Codn32u. , u, u:

AaoHdnd f r 3Ct7r oOM7&Rs
, uu Cogi 7nIls 7tog I a0
Nnpns g0MN0KFG 9J50C)



5589707 - BANK ST @ HOLMWOOD AVE - OCT 14 20... - TMC

Tue May 3, 20F00
l L l ngt h, (36 l L : 6(36 l L A: M- nag9l ngt 1 P) u
C9 9s 9gi i ni hd or yi gc HL PyPuva9hi 21 ng- v2l nHhi yuggci 2B eava9hi Pc RPgH2B eava9hi Pc
s uPi i wg9t A
C9 L P- nk ncyi
nh (3FF0 D302d Pagye Pc(, 64/88 D852:. 64 5D6572 be9n s PHn(, F53 F3F7

- uoHdgd f r ACeyr oOMy8Rs
3FF s Pci yn9IgyePc 1 u2
Nnpngc 2MN2K0G 6J82s C

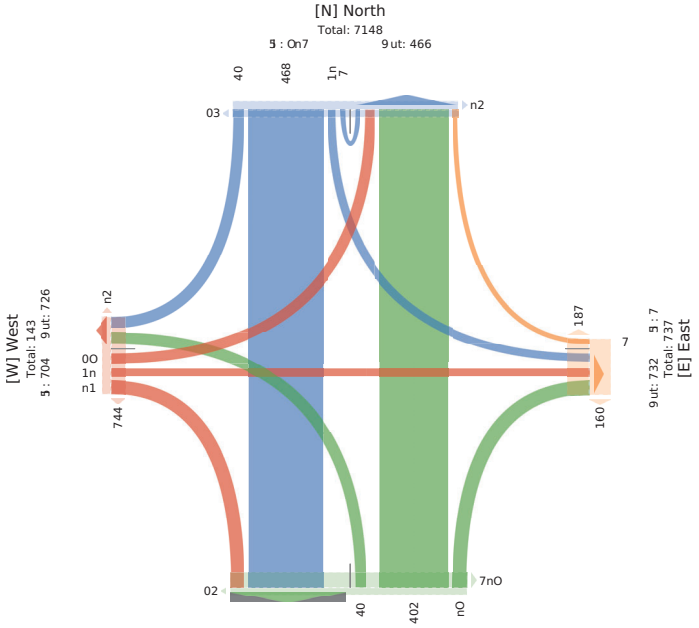
d no I ouuyePc:	NPgr bP) yr (P) cH								Egi y S ni y(P) cH								bP) yr NPgr (P) cH								S ni y Egi y(P) cH								
Wk: n	R	W	d	U	**Cpp**	l nH*			R	W	d	U	**Cpp**	l nH*			R	W	d	U	**Cpp**	l nH*			R	W	d	U	**Cpp**	l nH*	**my**
0F00: 3F:3, , (36 l L	.	3, ,	5	F	**36.**	7F			F	F	F	F	**F**	333			3,	3, ,	33	F	**358**	67			38	.	3F	F	**75**	. D	**750**
, (7F l L	0F	377	6	F	**36D**	06			F	F	F	F	**F**	36F			00	37,	35	F	**3. 0**	50			3D	6	36	F	**7D**	6D	**75D**
, (, 6 l L	30	356	5	3	**3D,**	7,			F	F	F	F	**F**	3. ,			38	300	35	F	**36.**	, 6			35	.	30	F	**76**	57	**7. 5**
6(FF l L	36	3, .	3F	F	**3. 0**	0,			3	F	F	F	**3**	3, F			03	3, F	33	F	**3. 0**	65			38	D	8	F	**75**	65	**7D**
WPgS	6,	6D	0.	3	**5. 3**	337			3	F	F	F	**3**	6. 6			. 5	6, F	6,	F	**5. F**	035			. 0	0.	. 5	F	**3, 6**	006	**3, D**
% CppuPgsr	D4%	D. 4 3%	. 4%	F4 8%	**:**	:			3FF%	P%	P%	P%	**:**	:			334%	D F4 5%	D4 8%	P%	**:**	:			. 84 %	3D6%	734 %	P%	**:**	:		
% WPgS	74 6%	784 5%	34 3%	F4 8%	**, 64 8%**	:			F4 8%	P%	P%	P%	**F4 8%**	:			64 8%	754 7%	74 6%	P%	**, 64 8%**	:			, 43%	343 %	74 8%	P%	**843 %**	:		
l l T	F4 5 57	F4 D8 0	F4 00	:	**F4 3D**	:			F4 D6F	:	:	:	**F4 0 6F**	:			F4 D5,	F4 B7 3	F4 0D D	:	**F4 8. 0**	:			F4 8 7,	F4 6F	F4 5.	:	**F4 8 6 7**	:		F4 8. 8
deor yi gc HL PyPuva9hi	60	657	05	F	**5, 3**	:			3	F	F	F	**3**	:			. 5	600	60	F	**56F**	:			. F	07	, 5	F	**378**	:		3, 73
% deor yi gc H L PyPuva9hi	854 %	864 %	854 %	P%	**864 %**	:			3FF%	P%	P%	P%	**3FF%**	:			3FF%	854 %	854 %	P%	**8. 4 %**	:			8. 4%	D4 4%	3FF%	P%	**864 %**	:		854 %
1 ng- v	3	36	F	F	**35**	:			F	F	F	F	**F**	:			F	3,	3	F	**36**	:			3	3	F	F	**0**	:		77
% 1 ng- v	34 8%	04 5%	F%	P%	**04 %**	:			F%	P%	P%	P%	**F%**	:			F%	04 5%	34 8%	P%	**04 %**	:			34 %	74 %	F%	P%	**34 %**	:		04 %
Bsva9hi Pc RPgH	3	33	3	3	**3,**	:			F	F	F	F	**F**	:			F	,	3	F	**6**	:			3	7	F	F	**,**	:		07
% Bsva9hi Pc RPgH	34 8%	34 8%	74 %	3F P%	**04 8%**	:			F%	P%	P%	P%	**F%**	:			F%	F4 %	34 8%	P%	**F4 %**	:			34 %	334 8%	F%	P%	**04 3%**	:		34 5%
l nHhi yuggci	:	:	:	:	:	337			:	:	:	:	:	6. 3			:	:	:	:	:	03F			:	:	:	:	:	003		
% l nHhi yuggci	:	:	:	:	:	: 3F F%			:	:	:	:	:	: 88 4%			:	:	:	:	:	: 8. 4%			:	:	:	:	:	: 8D 6%		:
Bsva9hi Pc s uPi i wg9t	:	:	:	:	:	F			:	:	:	:	:	,			:	:	:	:	:	5			:	:	:	:	:	,		
% Bsva9hi Pc s uPi i wg9t	:	:	:	:	:	F%			:	:	:	:	:	F4 %			:	:	:	:	:	04 3%			:	:	:	:	:	34 3%		:

*l nHhi yuggci gc H Bsva9hi Pc s uPi i wg9t 4d(d n9I2R(R t or y2 W(W ui) 2U(U: W) uc

5589707 - BANK ST @ HOLMWOOD AVE - OCT 14 20... - TMC

Sat My7, 20FuFF
l L l eng h2(, 1 l L : 1(, 1 l L 3: MAean-- l eng 6 P) a
C-- s -ni i ei hd tor 7i nc HL P7Payvy-ei 06 enAv0l eHei 7anci 0 Btyvy-ei Pc RPnH0 Btyvy-ei Pc
s aPi i wn-g3
C-- L PAek ec7i
nh (, uuFD, F0d Pyn7Pc(219455D5. 0:819 D 1. 40bt7e s PHe(2u. , u, u4

l aPAeHeHf v(s t7v POM7hwn
, uu s Pci 7e--n7Pc I a0
Nepenc 0MN0KFG 1J50s C



n gh I ngyyeot	Nosa(bol y(f o l t d						Esiy S gi y(f o l t d						bol y(Nosa(f o l t d						S gi y Esi y(f o l t d						
Wk g	B	W	n	U	) pp	- gd*	B	W	n	U	) pp	- gd*	B	W	n	U	) pp	- gd*	B	W	n	U	) pp	- gd*	ney
0F00 DF3, : A F- 9	0:	3, 3	: 0	F	38.	38	, F	03	,	F	.4	0.	D	3FD	D	F	30,	. 3	D	5	.	F	03	DI	, F.
: A 4- 9	3.	3, F	: .	F	380	: :	, D	3.	0	F	..	. F	5	3F:	,	F	33,	338	.	3:	D	F	05	3F8	: 88
c ol ut e W ey L	: 8	0D8	. D	F	: DD	40	DD	: 5	.	F	3: 3	D	34	033	30	F	0: D	3DF	3,	0F	3,	F	, D	383	DF4
, A F- 9	3D	3, 3	0,	F	3D	0.	43	3D	3	F	5F	0D	:	3FD	5	F	33D	: D	3F	0F	D	F	: D	4,	, F8
, A 4- 9	38	34.	0D	F	0F:	04	. F	30	F	F	50	05	,	303	:	F	30D	0F	:	33	30	F	0.	40	, 08
, A F- 9	30	3, :	: 3	F	3D	0.	, 8	3D	,	F	53	, F	5	338	D	F	3: ,	0D	33	33	3.	F	: :	48	, 0,
, A 4- 9	3.	3: D	: ,	F	3DD	: 5	: 5	0:	,	F	: ,	05	3	30F	,	F	305	3D	30	04	3F	F	, 5	. :	, 0,
c ol ut e W ey L	, 4	45D	335	F	5. F	33,	385	53	8	F	055	300	34	, D	0,	F	4F5	3F,	: 3	: 5	, ,	F	3, ,	00D	3. DD
4 A F- 9	00	3. 5	: :	F	000	0F	, 3	04	0	F	, D	, D	8	3, D	:	F	3. F	0,	3F	3.	30	F	: D	, ,	, DD
4 A 4- 9	0D	3, ,	: :	F	0F4	0.	: F	3.	,	F	4F	, ,	33	303	3F	F	3, 0	0.	D	35	33	F	: .	55	, : :
4 A F- 9	34	34.	: 4	F	0F.	0,	, ,	35	:	F	: ,	4,	.	30F	5	F	3: :	38	.	3D	3D	F	, 0	, D	, , 4
4 A 4- 9	38	333	, 0	F	350	: 5	00	3.	3	F	: 8	48	8	3: 3	33	F	343	3,	8	5	30	F	0D	DI	: 8F
c ol ut e W ey L	DI	45D	3, :	F	DF4	3F5	3: 5	5,	3F	F	003	004	: 4	40F	: 3	F	4D	D	: :	4D	4:	F	3, ,	04D	354,
, A F- 9	04	33D	0D	F	353	: :	3D	3,	,	F	: .	, 8	3D	300	,	F	3, ,	35	3F	08	5	F	, .	40	: 85
, A 4- 9	00	333	3D	F	343	, 3	3,	35	:	F	: ,	. 4	5	30.	D	F	3, 3	: 0	D	0:	3D	F	, 8	3: F	: 54
, A F- 9	35	33.	08	F	3. 0	: 0	0:	0F	0	F	, 4	33D	3:	3F:	30	F	30D	, 3	3:	3.	5	F	: .	DI	: 53
, A 4- 9	: 3	88	04	F	344	, 3	0,	00	3	F	, 5	D	,	88	5	F	33F	: 8	5	3.	3F	F	: :	8F	: . 4
c ol ut e W ey L	84	, , ,	3FF	F	. : 8	3, 5	58	5:	3F	F	3. 0	: 34	, 0	, 4F	: 3	F	40:	308	: D	I,	, 0	F	3. ,	: 48	3, DD
5 A F- 9	: 3	300	0,	F	355	. ,	35	3D	4	F	, F	, 0	.	3: 4	4	F	3. ,	0:	.	35	33	F	: ,	DI	: 85
5 A 4- 9	0:	33D	04	3	3. 5	0:	0:	3,	5	F	, ,	, 8	4	8:	5	F	3F4	3:	33	30	30	F	: 4	. 4	: 43
5 A F- 9	04	335	08	F	353	3,	3D	3.	,	F	: D	, ,	:	DD	33	F	3F0	3F	4	8	30	F	0.	04	: : 5
5 A 4- 9	03	33.	0F	F	345	3,	0:	33	0	F	: ,	05	:	DI	4	F	85	38	.	38	30	F	: 5	: 4	: 05
c ol ut e W ey L	3FF	, 5:	8D	3	. 50	84	DI	48	3D	F	34D	3. 3	35	, F4	0D	F	, 4F	. 4	0D	45	, 5	F	3: 0	03,	3, 30
D A F- 9	3D	DI:	35	F	300	34	38	30	3	F	: 0	03	4	DI	8	F	84	03	3F	3:	D	F	: 3	03	0DF
D A 4- 9	3,	3F5	8	F	3: F	3,	38	D	4	F	: 0	0.	3	5.	5	F	I,	3,	.	5	.	F	35	0,	0. :
D A F- 9	33	DD	3,	F	33:	3D	3F	3F	:	F	0:	, 0	5	DF	.	F	8:	3,	:	0	33	F	3.	: 0	0, 4
D A 4- 9	34	53	38	F	3F4	35	8	D	4	F	00	08	4	DI	4	F	83	30	5	,	4	F	3.	: 4	0: ,
c ol ut e W ey L	4D	: 4:	48	F	, 5F	. ,	45	: D	3,	F	3F8	33D	3D	: 3D	05	F	: . :	. 3	0,	0.	: F	F	DF	330	3F00
8 A F- 9	30	. :	35	F	80	0:	3.	:	,	F	0:	38	3	53	4	F	55	3,	D	5	8	F	0,	00	03.
8 A 4- 9	D	5:	30	F	8:	00	3,	5	:	F	0,	05	:	53	0	F	5.	3D	3F	30	8	F	: 3	05	00,
8 A F- 9	4	. ,	33	F	DF	3,	33	.	,	F	03	05	,	4D	,	F	. ,	3.	3	.	:	F	3F	: 3	355
8 A 4- 9	5	50	:	F	DD	34	30	.	:	F	03	: 4	3	DF	5	F	DD	30	0	,	4	F	33	4F	0F0
c ol ut e W ey L	: 0	050	, :	F	: , 5	5,	4:	00	3,	F	DI	3FD	8	0DF	3D	F	: F5	. F	03	08	0.	F	5.	3: F	DI8
3F A F- 9	3F	40	3F	F	50	: F	D	.	.	F	0F	3DI	0	. :	3	F	. ,	0:	.	5	5	F	0F	00D	35D
3F A 4- 9	,	DI	F	F	DI	, 5	8	3.	5	F	: 0	8D	:	. 0	5	F	5D	38	D	5	34	F	: F	3: .	038
3F A F- 9	D	8F	3	F	88	8	5	.	F	F	3:	, 4	3	4D	,	F	. :	3F	:	8	:	F	3D	, :	38:
3F A 4- 9	3.	DI	D	F	3F8	35	4	.	,	F	34	38	3	44	D	F	. ,	5	D	4	8	F	0D	0F	03F
c ol ut e W ey L	: D	: FD	38	F	: . 4	3F	08	: ,	35	F	DF	, ,	5	0: D	0F	F	0. 4	48	0D	0D	: ,	F	8F	, 05	DFF
33 A F- 9	4	303	3F	F	3: .	4	4	:	F	F	, D	38	F	, 4	,	F	, 8	F	4	4	8	F	38	0:	030
33 A 4- 9	33	. ,	33	F	DD	4	.	4	3	F	30	34	:	40	:	F	4D	8	5	0	D	F	35	03	354
c ol ut e W ey L	3.	3D5	03	F	00,	33	33	D	3	F	0F	: ,	:	85	5	F	3F5	8	30	5	35	F	: .	, ,	: D5
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c gsH	: 3	33D	3	F	34F	1	,	0	3	F	5	1	F	300	F	F	300	1	3	4	3:	F	38	1	08D
% c gsH	42 8 %	: 2 %	F2 8 %	F%	: 70 %	1	F4 %	F2 8 %	32 %	F%	F2 %	1	F%	, 28 %	F%	F%	: 2 %	1	F2 %	32 %	, 2 8 %	F%	028 %	1	028 %
v enr algi ot Bosd	D	55	3	F	DI	1	3.	0	F	F	3D	1	F	5,	F	F	5,	1	0	3F	0	F	3,	1	380
% v enr algi ot Bosd	32 8 %	070 %	F2 8 %	F%	32 D %		070 %	F2 8 %	F%	F%	32 %	1	F%	02 8 %	F%	F%	070 %	1	F2 8 %	07 5 %	F2 %	F%	32 8 %		328 %
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v enr algi ot C uoi i R s Iw	1	1	1	1	1		1	1	1	1	1	5	1	1	1	1	1	34	1	1	1	1	1	08	
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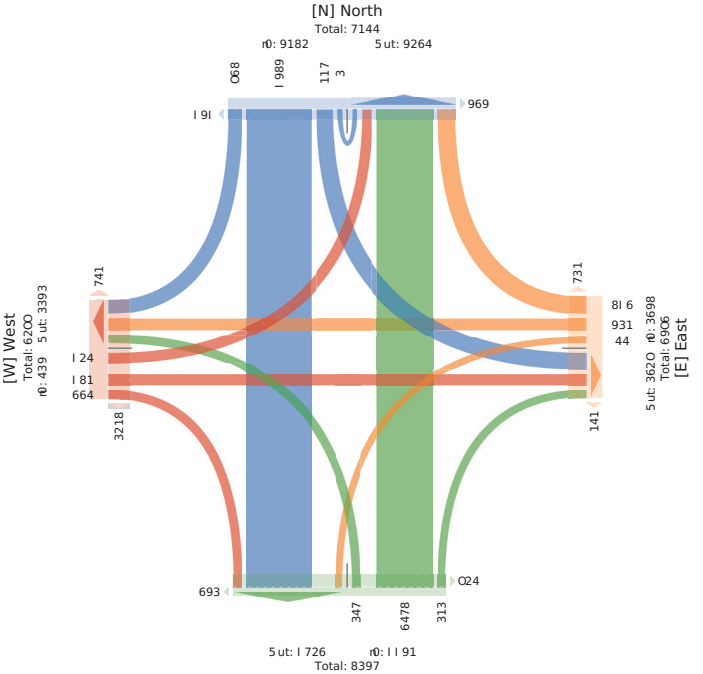

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Wk n	R	W	d	U	Cpp	l nIP	R	W	d	U	Cpp	l nIP	R	W	d	U	Cpp	l nIP	R	W	d	U	Cpp	l nIP	ney
0F00: 3F: 3, , (6 I L	3.	34D	4,	F	3DD	45	45	04	,	F	. ,	05	3	30F	.	F	305	3D	30	06	3F	F	, 5	. 4	, 0,
6(FFI L	00	3. 5	44	F	000	0F	, 3	06	0	F	. D	, D	8	3, D	4	F	3. F	0,	3F	3.	30	F	4D	, ,	, DD
6(36I L	0D	3, ,	44	F	0F6	0.	4F	3.	,	F	6F	, ,	33	303	3F	F	3, 0	0.	D	35	33	F	4.	55	, 44
6(4FI L	36	36.	46	F	0F.	0,	, ,	35	4	F	. ,	6,	.	30F	5	F	344	38	.	3D	3D	F	, 0	, D	, , 6
W Pg9	DI	. F6	346	F	DD3	3F5	360	DI	34	F	0, .	384	05	6F8	0.	F	6. 0	DF	4.	5.	63	F	3. 4	040	3580
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% W Pg9	, 7 6 %	44 2 D %	57 6 %	F%	, 6 2 D %	:	DF6 %	, 7 6 %	F7 5 %	F%	345 %	:	37 6 %	0DI %	37 6 %	F%	437 %	:	07 3 %	, 7 D %	0 2 D %	F%	87 8 %	:	:
I l T	F7500	F2 B 34	F2 B. ,	:	F2 B0 5	:	F2 DD	F2 DF	F2 D 34	:	F2 8F3	:	F2 3,	F2 D.	F7 6F	:	F2 D.	:	F756F	F7553	F7546	:	F2 D5F	:	F2 B34
d eor yi gc HL P yP uava9 hi	5,	656	346	F	5 Q	:	363	DF	30	F	0, 4	:	05	, DF	0.	F	644	:	4.	5,	6F	F	3. F	:	350F
% d eor yi gc H L P yP uava9 hi	832 %	86 7 %	3F F %	F%	867 8 %	:	88 7 %	8 D D %	80 7 %	F%	8 D D %	:	3F F %	8, 7 %	3F F %	F%	8, 2 D %	:	3F F %	85 7 %	8 D F %	F%	8 D 0 %	:	8. 7 %
I ng- v	,	34	F	F	35	:	F	3	3	F	0	:	F	3,	F	F	3,	:	F	F	F	F	F	:	44
% I ng- v	. 2 8 %	07 8 %	F%	F%	028 %	:	F%	3 7 0 %	57 5 %	F%	F2 D %	:	F%	0 2 D %	F%	F%	070 %	:	F%	F%	F%	F%	F%	:	3 2 D %
Bauva9 hi Pc R Pgh	4	35	F	F	0F	:	3	F	F	F	3	:	F	36	F	F	36	:	F	0	3	F	4	:	48
% Bauva9 hi Pc R Pgh	47 5 %	07 D %	F%	F%	07 %	:	F7 5 %	F%	F%	F%	F7 %	:	F%	07 8 %	F%	F%	075 %	:	F%	07 2 %	07 3 %	F%	32 D %	:	07 0 %
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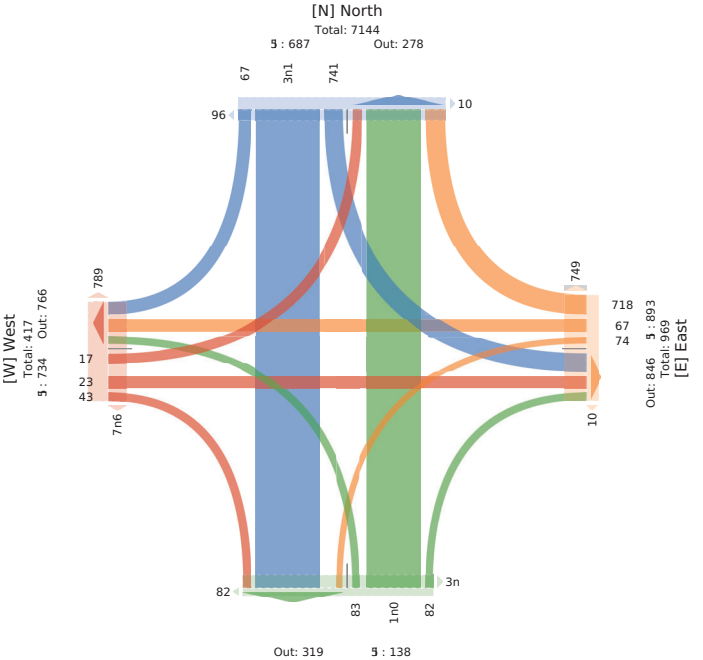

5589707 - BANK ST @ WILTON CRES - OCT 14 2022 - TMC

Tue May 3, 20F00
Tl lLngt hy(6 AF - 9 133AF - 9 P
) lLCls i i gi 6 neh(yi st d 9 oyour algi 2c gsH· 2- gdgi yust i 2v ear algi ot Bosd2v ear algi ot Cuoii i Rs lwP
) lL9 oHgk gt yi
nh A3FF0D842n oasyot A, 47. 8555021547. D4, F42beg. CodgA, F. 303F:

- uoHrdgd f r ACeyr oOMysRs
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Ngpgst 2MN2K0G 4J82C)

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Vek g	B	W	U	) pp	- gd*	W	n	U	) pp	- gd*	B	n	U	) pp	- gd*	my
0F0013F3, : AF- 9	3F	30:	F	3: :	3	30.	: 4	F	3. 3	F	. 3	4	F	. .	.	: . F
: A4- 9	33	338	F	3: F	3	3, 4	, 4	F	38F	F	4D	3	F	48	, 8	: 58
c ol ufc W oysL	03	0, 0	F	0. :	0	053	DF	F	: 43	F	338	.	F	304	84	5: 8
, AF- 9	34	3: 8	F	34,	.	3: 4	, 3	F	35.	F	4,	F	F	4,	: :	: D
, A4- 9	D	3: F	F	3: D	5	3. 8	. F	F	008	F	. F	3	F	. 3	, 8	, 0D
, AF- 9	3,	3: 0	F	3, .	3	3, D	, ,	F	380	F	5,	F	F	5,	: F	, 30
, A4- 9	0F	3: 4	F	344	:	3. F	:,	F	38,	F	4.	F	F	4.	, 8	, F4
c ol ufc W oysL	45	4: .	F	48:	34	. 30	358	F	583	F	0, ,	3	F	0, 4	353	3. 08
4AF- 9	: F	34,	F	3D	F	35,	, 5	F	003	F	. 4	4	F	5F	4.	, 54
4A4- 9	05	333	3	3: 8	3F	3DF	00	F	0F0	F	50	F	F	50	. 3	, 3:
4AF- 9	0.	33D	F	3, ,	4	3DD	3	F	3D8	4	5:	F	F	5:	, ,	, F.
4A4- 9	0,	333	F	3: 4	3:	343	F	F	343	F	44	F	F	44	. 8	: , 3
c ol ufc W oysL	3F5	, 8,	3	. F0	0D	. 8:	5F	F	5. :	4	0. 4	4	F	05F	0: F	3. : 4
. AF- 9	4F	3F8	F	348	3D	35,	F	F	35,	3	, F	3	F	, 3	.	: 5.
. A4- 9	: D	3F4	F	3, :	,	350	F	F	350	30	: :	F	F	: :	DD	: . D
. AF- 9	4:	DF	F	3: :	50	3. 8	0	F	353	3D	40	F	F	40	30.	: 4.
. A4- 9	43	8.	F	3, 5	D5	3: 3	3	F	3: 0	38	, D	F	F	, D	30:	: 05
c ol ufc W oysL	380	: 8F	F	4D0	003	. , ,	:	F	. , 8	4F	35:	3	F	35,	, FF	3, F4
5AF- 9	, F	33,	F	34,	54	3DF	F	F	3DF	0.	. ,	F	F	. ,	D	: 5D
5A4- 9	: 5	335	F	34,	: 4	34F	F	F	34F	3.	40	F	F	40	. 3	: 4.
5AF- 9	: 0	3F8	F	3, 3	0D	3, F	F	F	3, F	8	. .	F	F	. .	03	: 05
5A4- 9	: 3	3FF	F	3: 3	3,	304	F	F	304	38	43	F	F	43	. 3	: F5
c ol ufc W oysL	3, F	, , F	F	4DF	340	484	F	F	484	5F	38:	F	F	38:	0F.	3: . D
DAF- 9	: 0	D8	F	303	D	30:	F	F	30:	D	0D	F	F	0D	38	050
DA4- 9	0.	80	F	33D	D	33:	F	F	33:	0	. :	F	F	. :	: 0	05,
DAF- 9	0D	D4	F	33:	3	33,	F	F	33,	4	, F	F	F	, F	: 3	0. 5
DA4- 9	0F	. ,	F	D	3	8.	F	F	8.	0	0D	F	F	0D	04	0FD
c ol ufc W oysL	3F.	: : F	F	, : .	3D	, , .	F	F	, , .	35	3: 8	F	F	3: 8	3F5	3F03
8AF- 9	0:	50	F	84	35	3F.	F	F	3F.	3F	: 3	F	F	: 3	: 8	0: 0
8A4- 9	38	DF	F	88	3,	3F4	F	F	3F4	0	0	F	F	0	03	0F.
8AF- 9	3,	55	F	83	00	D	F	F	D	08	F	F	F	F	: F	355
8A4- 9	00	. D	F	8F	43	83	F	F	83	43	3	F	F	3	: D	3D0
c ol ufc W oysL	5D	085	F	: 54	3F,	: DD	F	F	: DD	80	: ,	F	F	: ,	30D	585
3FAF- 9	3F	, D	F	4D	, FF	5F	F	F	5F	: 4.	,	F	F	,	3D	3: 0
3FA4- 9	3,	. 5	F	D8	3D	3FF	F	F	3FF	: D	F	F	F	F	, ,	3D8
3FAF- 9	0F	85	F	335	0:	D0	F	F	D0	D	F	F	3	3	: :	0FF
3FA4- 9	0F	58	F	88	.	5D	F	F	5D	:	: D	F	F	: D	05	034
c ol ufc W oysL	. ,	083	F	: 44	, , 5	: : F	F	F	: : F	, F4	, 0	F	3	, :	08F	50D
33AF- 9	3:	80	F	3F4	0	. 4	0	F	. 5	0	0D	F	F	0D	35	0FF
33A4- 9	33	. :	F	5,	30	. .	D	F	5,	3	03	3	F	00	05	35F
c ol ufc W oysL	0,	344	F	358	3,	3: 3	3F	F	3, 3	:	, 8	3	F	4F	, ,	: 5F
W oysL	5D8	: 354	3	: 8. 4	3FF3	, 330	: , 0	F	, , 4,	. , 0	304D	3,	3	305:	3. 53	8. 80
%) ppuosa(	387 8%	DF 5%	F%	1	1	807 %	575%	F%	1	1	8DD 3%	378%	F 5%	1	1	1
% W oysL	DD 3%	: 07 D%	F%	, F 8%	1	, 07 %	: 78%	F%	, 7 F%	1	3: 7 F%	F 5%	F%	3: 5 %	1	1
neh(yi st d 9 oyour algi	558	08: 5	3	: 535	1	: D54	: 08	F	, 0F,	1	3000	8	3	30: 0	1	834:
% neh(yi st d 9 oyour algi	8D 5%	807 4%	3FF%	8: 5%	1	8, 70%	8. 70%	F%	8, 7 %	1	857 3%	. , 2 %	3FF%	8. 70 %	1	8, 7 %
c gsH·	,	3: .	F	3, F	1	3: D	0	F	3, F	1	.	3	F	5	1	0D6
% c gsH·	F 74%	, 7 %	F%	: 74%	1	: 7 %	F 7 %	F%	: 5%	1	F 74%	573%	F%	F 74%	1	: 5%
v ear algi ot Bosd	.	3F0	F	3FD	1	88	33	F	33F	1	: F	,	F	:,	1	040
% v ear algi ot Bosd	FD 0%	: 70%	F%	0 5%	1	07 %	: 70%	F%	07 8%	1	07 %	0D 7 %	F%	0 5%	1	07 %
- gdgi yust i	1	1	1	1	88D	1	1	1	1	. , F	1	1	1	1	3. , ,	
% - gdgi yust i	1	1	1	1	8875%	1	1	1	1	8875%	1	1	1	1	8D(%	1
v ear algi ot Cuoii Rs lw	1	1	1	1	:	1	1	1	1	0	1	1	1	1	05	

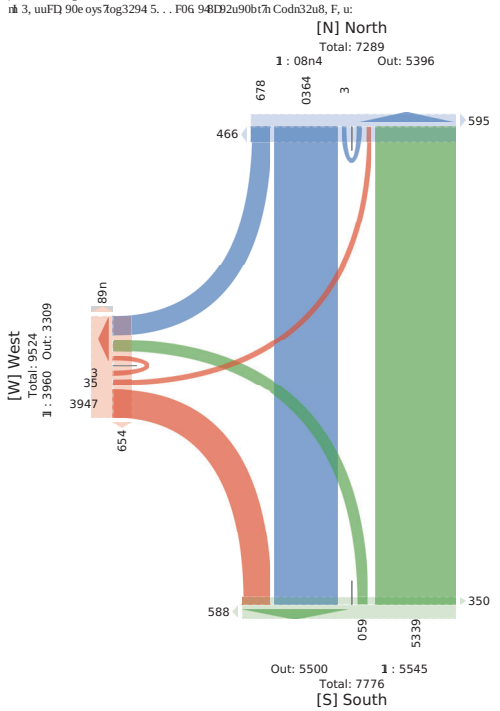
ngh I ragayot	Nou y(bol y(f ol t d					bol y(Nou y(f ol t d					E gi y Ssi y(f ol t d					
Vek g	B	W	U	) pp	- gd*	W	n	U	) pp	- gd*	B	n	U	) pp	- gd*	my
% v ear algi ot Cuoii Rs lw	1	1	1	F 7 %		1	1	1	1	F 7 %	1	1	1	1	37 %	1

*- gdgi yust i st d v ear algi ot Cuoii Rs lw7n An g92BABeh(y2WAW(ul 2UALJ Wl ut

5589707 - BANK ST @ WILTON CRES - OCT 14 2022 - TMC

Sat My7, 20FuFF
Sl lLe ngh7(I: 3 u A- 6 , 3 u A- P
) lLCls i i ni le th(7l sgd - o7bayr yIni 0c nsH· 0Andni 7ats gi 0v tyr yIni og Bosd0v tyr yIni og Caoii i Rs lwP
) lL- oHnk ng7l
nh 3, uuFD, 90e oys7og3294 5. . . F06 948D92u90bt7n Codn32u8, F, u:

AaoHtdnd f r 3Cr7r oOM7&Rs
, uu Cogi 7hlls7og I a0
Nnpnsg0MN0KFG 9J50C)



5589707 - BANK ST @ WILTON CRES - OCT 14 2022 - TMC

Tue May 3, 20F00
l L l ngt h(36 l L : 6(36 l L A: M- nug9l l ngt 1 P) u
C9s 5gi ini hd eor yi gcHL PyPuava9ni 21 ng- v2l nHni yugci 2Beuva9ni Pc RPgH2Beuva9ni Pc s uPi i wg9 A
C9 L P- nk ncyi
nh (3FF0D862d PagyePc(, 647855502: 564 D6, F62beyn s PHn(, F. 303F7

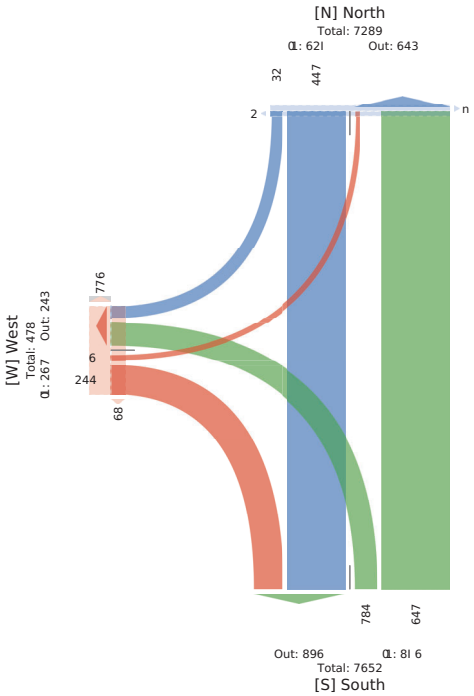
l uP- eHnHf v(s ey POMygwg
3FF s Pci yn9gyePc I u2
Nnpngc2MN2K0G 6J82s C

dno I eanayePc	NPuyr bP) yr f P) c H					bP) yr NPuyr f P) c H					E ni y Ssi y(f P) c H					
Vek n	R	W	U	Cpp	l nH*	W	d	U	Cpp	l nH*	R	d	U	Cpp	l nH*	my
0F00:3F:3, , (36 l L	D	37F	F	37D	5	3. 8	. F	F	008	F	. F	3	F	. 3	. 8	, 0D
, (7F l L	3,	370	F	3, .	3	3, D	, ,	F	380	F	5,	F	F	5,	7F	, 30
, (, 6 l L	0F	376	F	366	7	3. F	7,	F	38,	F	6.	F	F	6.	. 8	, F6
6(FF l L	7F	36,	F	3D	F	35,	, 5	F	003	F	. 6	6	F	5F	6.	, 56
W pg9	50	663	F	. 07	33	. 63	3D6	F	DF.	F	066	.	F	0. 3	3D	350F
% Cppu Pgar	334 %	DD(%	F%	:	:	554%	004%	F%	:	:	854%	04%	F%	:	:	:
% W pg9	, 4%	704%	F%	7. 4%	:	754%	3F 4%	F%	, D(%	:	3, 4%	F4%	F%	364%	:	:
1 l T	F4 FF	F4F,	:	F4D67	:	F4F8	F4 5.	:	F8F7	:	F4DD	F4 7F	:	F8F8	:	F4D8.
d eor yi gcHL PyPuava9ni	53	63D	F	6D8	:	. 3,	358	F	587	:	0, 7	.	F	0, 8	:	3. 73
% d eor yi gcHL PyPuava9ni	8D(%	8, 4%	F%	8, 4%	:	8, 4%	8. 4%	F%	8, 4%	:	864%	3FF%	F%	864 %	:	8, 4%
1 ng- v	3	35	F	3D	:	36	3	F	3.	:	0	F	F	0	:	7.
% 1 ng- v	34 %	748%	F%	048%	:	04%	F4 6%	F%	348%	:	F4 3%	F%	F%	F4 3%	:	048%
Beuva9ni Pc RPgH	F	3.	F	3.	:	00	6	F	05	:	3F	F	F	3F	:	67
% Beuva9ni Pc RPgH	F%	048%	F%	04 %	:	74 %	045%	F%	740%	:	748%	F%	F%	743%	:	748%
l nHni yugci	:	:	:	:	3F	:	:	:	:	F	:	:	:	:	3D8	
% l nHni yugci	:	:	:	:	8F 48%	:	:	:	:	:	:	:	:	:	8D(%	:
Beuva9ni Pc s uPi i wg9	:	:	:	:	3	:	:	:	:	F	:	:	:	:	7	
% Beuva9ni Pc s uPi i wg9	:	:	:	:	848%	:	:	:	:	:	:	:	:	:	34 %	:

*l nHni yugci gcHBeuva9ni Pc s uPi i wg9 4d((d n9 2R(Reor y2W(W u) 2U(U: W ut

5589707 - BANK ST @ WILTON CRES - OCT 14 2022 - TMC

Sat May 7, 20FuFF
l L l eng h2(, 1 l L : 1(, 1 l L 3: MAean– l eng 6 P) a
C– – s -ni i ei h dtor 7i ncHL P7Payvy-ei 06 enAv0l eHei7tnci 0Btyvy-ei Pc RPnH0Btyvy-ei Pc
s aPi i wn-g3
C– – L PAek ec7i
ni (, uuFD 10d Pyn7tPc(21945. . . F0:. 19BDl2u10br7e s PHe(2u8, F, u4



5589707 - QUEEN ELIZABETH DRWY @ FIFTH AVE -... - TMC

Tue May 3, 20F00
Tl lLng t hy(6 AF - 9 133AF - 9 P
) lLCIsi i gi 6n eh(yi st d 9 oyour algi 2c gsH 2- gdgi yust i 2v enr algi ot Bosd2v enr algi ot
C ui i i RsIwP
) lL9 oHgk gt yi
ni A3FF0D 32n oasyot A, 47, F: 80321547 D885, 2besg CodgA, F. 333F:

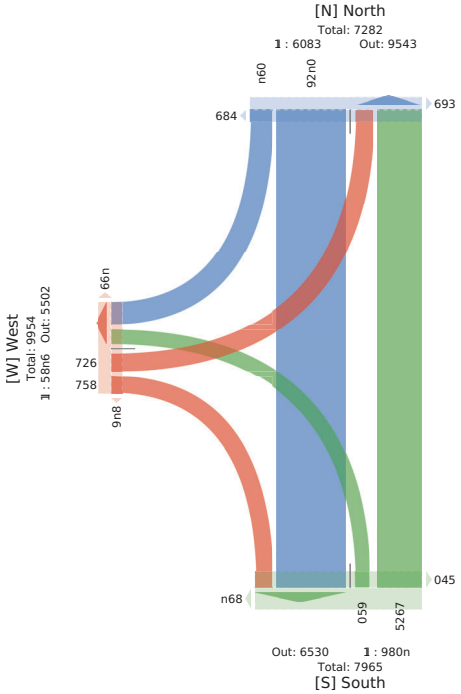
ngh l ngayot	Noug(bol y(f ol t d					bol y(Noug(f ol t d					E gi y Ssi y(f ol t d					
Wk g	B	W	U	) pp	- gd*	W	n	U	) pp	- gd*	B	n	U	) pp	- gd*	ny
0F0013FB, : AF- 9	0D	34F	F	35D	05	44	30	F	. 5	0D	5	8	F	3.	8	0. 3
: A4- 9	38	304	F	3, ,	0F	. F	34	F	54	0D	D	3F	F	3D	34	0: 5
c ol ufr W oyL	, 5	054	F	: 00	, 5	334	05	F	3, 0	4.	34	38	F	: ,	0,	, 8D
, AF- 9	34	3. 0	F	355	3.	4:	3F	F	. :	: F	5	38	F	0.	D	0. :
, A4- 9	0,	3FD	F	3: 0	38	. 0	35	F	58	: F	30	35	F	08	3D	0, F
, AF- 9	0D	3. D	F	38.	0.	. ,	33	F	54	, 4	5	34	F	00	0F	08:
, A4- 9	, :	34D	F	0F3	0.	4.	3D	F	5,	: 0	3F	35	F	05	0.	: F0
c ol ufr W oyL	33F	48.	F	5F.	D8	0: 4	4.	F	083	3: 5	: .	. D	F	3F,	50	33F3
4AF- 9	0:	3. F	F	3D	. ,	. .	35	F	D	. ,	03	3F	F	: 3	0,	085
4A4- 9	08	354	F	0F,	38	45	3:	F	5F	. F	05	3:	F	, F	30	: 3,
4AF- 9	0D	3: .	F	3. ,	: 3	5.	03	F	85	: 5	08	00	F	43	3D	: 30
4A4- 9	: 5	, F	F	55	05	: 5	3.	F	4:	, 3	04	00	F	, 5	05	355
c ol ufr W oyL	335	433	F	. 0D	303	0: .	. 5	F	: F:	3D	3F0	. 5	F	3. 8	D8	33FF
. AF- 9	: :	. F	F	8:	0:	4F	00	F	50	. 0	0:	00	F	, 4	: :	03F
. A4- 9	: F	, 0	F	50	, 8	, 8	5	F	4.	85	0:	38	F	, 0	: .	35F
. AF- 9	00	, 4	F	. 5	: 3	40	33	F	. :	D8	3.	3D	F	: ,	, .	3. ,
. A4- 9	05	, .	F	5:	: .	: D	0D	F	. .	D	04	3F	F	: 4	: D	35,
c ol ufr W oyL	330	38:	F	: F4	3: 8	3D8	. D	F	045	: : ,	D5	. 8	F	34.	343	53D
5AF- 9	, .	4,	F	3FF	3F	4F	0.	F	5.	. 0	0,	0:	F	, 5	0.	00:
5A4- 9	: 3	5F	F	3F3	30	, .	33	F	45	, .	0.	35	F	, :	34	0F3
5AF- 9	05	D5	F	33,	.	, :	D	F	43	, F	: 5	04	F	. 0	.	005
5A4- 9	08	5:	F	3F0	34	0D	38	F	, 5	04	34	00	F	: 5	8	3D
c ol ufr W oyL	3: :	0D	F	, 35	, :	3. 5	. ,	F	0: 3	35:	3F0	D5	F	3D8	4,	D5
DAF- 9	0.	. 3	F	D5	3,	: ,	3:	F	, 5	34	30	3:	F	04	4	348
DA4- 9	3.	45	F	5:	3:	08	5	F	: .	33	34	35	F	: 0	3F	3, 3
DAF- 9	3F	, :	F	4:	30	0.	33	F	: 5	34	D	D	F	3.	3,	3F.
DA4- 9	D	4:	F	. 3	33	08	.	F	: 4	0F	3F	4	F	34	:	333
c ol ufr W oyL	. F	03,	F	05,	4F	33D	: 5	F	344	. 3	, 4	, :	F	DD	: 0	435
8AF- 9	3.	. F	F	5.	4	0:	33	F	: ,	00	38	3,	F	: :	3:	3, :
8A4- 9	35	. D	F	D4	3D	: 5	3,	F	43	05	33	3F	F	03	3.	345
8AF- 9	0,	. D	F	80	D	, 8	:	F	40	03	3:	34	F	0D	8	350
8A4- 9	0F	3F3	F	303	D	5:	00	F	84	34	3:	03	F	: ,	38	04F
c ol ufr W oyL	55	085	F	: 5,	: 8	3D0	4F	F	0: 0	D4	4.	. F	F	33.	45	500
3FAF- 9	3D	. ,	F	D0	0D	48	30	F	53	D	33	0D	F	: 8	43	380
3FA4- 9	34	. 5	F	D0	, F	D	,	F	8F	. 8	35	, 3	F	4D	. F	0: F
3FAF- 9	3,	43	F	. 4	0F	DF	,	F	D	00	38	, 0	F	. 3	3.	03F
3FA4- 9	33	: D	F	, 8	30	. 8	4	F	5,	5	3.	0:	F	: 8	0	3. 0
c ol ufr W oyL	4D	00F	F	05D	3FF	08,	04	F	: 38	3D0	. :	3: ,	F	385	308	58,
33AF- 9	3F	, F	F	4F	:	5F	3,	F	D	,	,	33	F	34	,	3, 8
33A4- 9	3F	, ,	F	4,	D	08	,	F	: :	4	F	4	F	4	:	80
c ol ufr W oyL	0F	D	F	3F,	33	88	3D	F	335	8	,	3.	F	0F	5	0, 3
W oyL	5: ,	0. 5,	F	: , FD	. : 5	3. : 4	, 30	F	0F, 5	3003	43F	4. :	F	3F5:	. F5	. 40D
%) ppuosa(	037.8%	5D8.8%	P%	1	1	587.8%	0F7.5%	P%	1	1	, 57.8%	407.8%	P%	1	1	1
% W oyL	337.0%	, 37.3%	P%	407.0%	1	047.8%	. 7. %	P%	: 37. %	1	57.0%	D7. %	P%	3. 7. %	1	1
n eh(yi st d 9 oyour algi	53F	0. F:	F	: : 3:	1	345F	, F5	F	3855	1	4F3	444	F	3F4.	1	. : . .
% n eh(yi st d 9 oyour algi	8. 75%	857. %	P%	857.0%	1	8. 7.%	8D3.0%	P%	8. 7. %	1	8D.0%	8D7. %	P%	8D7. %	1	857.%
c gsH	:	40	F	44	1	44	:	F	4D	1	,	:	F	5	1	30F
% c gsH	F7. %	37.8%	P%	37. %	1	: 7. %	F7.5%	P%	07.0%	1	F7.0%	F7.4%	P%	F7.5%	1	37.0%
v enr algi ot Bosd	03	38	F	, F	1	3F	0	F	30	1	4	4	F	3F	1	. 0
% v enr algi ot Bosd	07.8%	F7.5%	P%	37.0%	1	F7. %	F7.4%	P%	F7. %	1	37.7%	F7.8%	P%	F7.8%	1	F7.8%
- gdgi yust i	1	1	1	1	41)	1	1	1	1	3300	1	1	1	1	4D6	
% - gdgi yust i	1	1	1	1	837.5%	1	1	1	1	837.5%	1	1	1	1	8. 7. %	1
v enr algi ot C ui i i RsIw	1	1	1	1	4:	1	1	1	1	88	1	1	1	1	00	

ngh l ngayot	Noug(bol y(f ol t d					bol y(Noug(f ol t d					E gi y Ssi y(f ol t d					
Wk g	B	W	U	) pp	- gd*	W	n	U	) pp	- gd*	B	n	U	) pp	- gd*	ny
% v enr algi ot C ui i i RsIw	1	1	1	1	D7. %	1	1	1	1	D7.5%	1	1	1	1	: 7. %	1

* - gdgi yust i st d v enr algi ot C ui i i RsIw 7n An g(2BABeh(y2WAW(ul 2UAU1Wl ut

5589707 - QUEEN ELIZABETH DRWY @ FIFTH AVE -... - TMC

Sat May 7, 20FuFF
Sl lLe ngh7(I: 3 u A- 6 , 3 u A- P
) lLCIsi i ni le th(7i sgd - o7bayr yIni 0c nsH- 0Andni 7ats gi 0v tyr yIni og Bosd0v tyr yIni og
C ui i i RsIwP
) lL- oHnk ng7i
ni 3, uuFD , 0e oys7og3294 2u: 5F, 06, 948D, 5. 20bt7n Codn32u8, , , u:



5589707 - QUEEN ELIZABETH DRWY @ FIFTH AVE -... - TMC

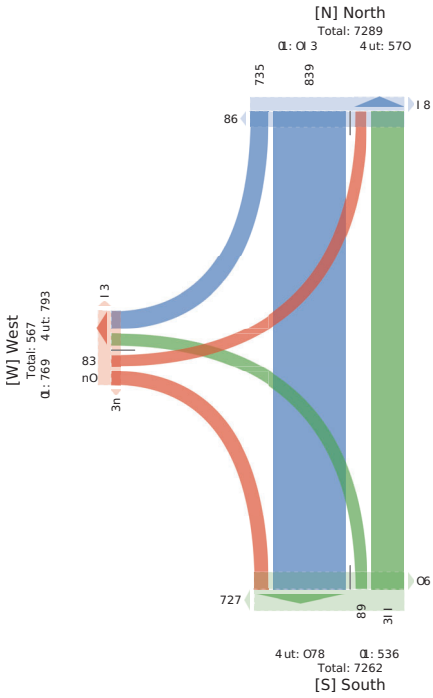
Tue May 3, 20F00
l L l ngt h (, 6 l L : 6(, 6 l L A: M- nug9ll ngt 1 P) u
C9ls 9gi ini hdeor yi gcHL PyPuava9hi 21 ng- v2l nHhi yurgci 2Bauva9hi Pc RPgH2Bauva9hi Pc
s uPi i wg9 A
C9l L P- nk nc yi
nh (3FF0D032d PagyePc (, 67, F48032: 567. D385, 2beyn s PHn (, F. 333F4

d no I auayePc	NPuyr bP) yr f P) cH				bP) yr NPuyr f P) cH				E ni y Sgi yf P) cH				
Wk n	R	W	U	**Cpp**	l nH*	W	d	U	**Cpp**	l nH*	R	d	U	**Cpp**	l nH*	**my**
0F00: 3F:3, , (, 6l L	, 4	36D	F	**0F3**	0.	6.	3D	F	**5,**	40	3F	35	F	**05**	0.	**4F0**
6(FFl L	04	3. F	F	**3Di**	, ,	. .	35	F	**Di**	, ,	03	3F	F	**43**	0,	**085**
6(36l L	08	356	F	**0F,**	38	65	34	F	**5F**	. F	05	34	F	**, F**	30	**43,**
6(4Fl L	0D	34.	F	**3. ,**	43	5.	03	F	**85**	45	08	00	F	**63**	3D	**430**
WPyg9	304	. 08	F	**560**	30F	066	. 8	F	**40,**	356	D5	. 0	F	**3, 8**	DF	**3006**
% CppuPgar	3. 7 %	D47 %	P%	**:**	:	5D5%	037l%	P%	**:**	:	6D2 %	, 37 %	P%	**:**	:	:
% WPyg9	3F7%	637l%	P%	**. 37 %**	:	0FD%	67 %	P%	**0. 7 %**	:	57l%	67l%	P%	**307D%**	:	:
l l T	F54.	FD8,	:	**F83D**	:	FD6.	FD03	:	**FD60**	:	F75, 3	F5Fl6	:	**F506**	:	F8E60
d eor yi gcHL PyPuava9hi	3F8	. 34	F	**500**	:	0, 5	. D	F	**436**	:	D	. 0	F	**3, D**	:	33D6
% d eor yi gcHL PyPuava9hi	lDE %	85l5%	P%	**8. 3F%**	:	8. l8%	8lE %	P%	**85D0%**	:	8lD8%	3Fl%	P%	**887l%**	:	8. l5%
1 ng- v	F	8	F	**8**	:	5	3	F	**D**	:	F	F	F	**F**	:	35
% 1 ng- v	F%	37 %	F%	**37D%**	:	07l%	37 %	F%	**07l5%**	:	F%	F%	F%	**F%**	:	37 %
Bauva9hi Pc RPgH	3,	5	F	**03**	:	3	F	F	**3**	:	3	F	F	**3**	:	04
% Bauva9hi Pc RPgH	337 %	37l%	F%	**07D%**	:	F7 %	F%	F%	**F7l%**	:	37l%	F%	F%	**F5l%**	:	37l%
1 nHhi yurgci	:	:	:	:	3FD	:	:	:	:	3. 4	:	:	:	:	56	
% 1 nHhi yurgci	:	:	:	:	8F7%	:	:	:	:	847l%	:	:	:	:	847D%	:
Bauva9hi Pc s uPi i wg9	:	:	:	:	30	:	:	:	:	30	:	:	:	:	6	
% Bauva9hi Pc s uPi i wg9	:	:	:	:	3F7%	:	:	:	:	. 8l%	:	:	:	:	. 7l%	:

*l nHhi yurgci gcHBauva9hi Pc s uPi i wg9 7d (d nQ2R(Reor y2W(W u) 2U(U: WJ uc

5589707 - QUEEN ELIZABETH DRWY @ FIFTH AVE -... - TMC

Sat My7, 20FuFF
l L l eng h2(21 l L : 1(21 l L 3: MAean-- l eng 6 P) a
C-- s -ni i ei hdtor 7i ncHL P7Payvy-ei 06 enAv0l eHei 7anci 0Btyvy-ei Pc RPnH0Btyvy-ei Pc
s aPi i wn-g3
C-- L PAek ec7i
nh (, uuFD9, 0d Pyn7tPc (214-2u95F, 0:. 148D, 5. 20bt7e s PHe (2u8, , , u9



5589707 - QUEEN ELIZABETH DRWY @ PRINCESS PA... - TMC

Tue May 3, 20F00
Tl lLngt hy(6 AF - 9 l33AF - 9 P
) lLCIs i igi 6n eh(yi st d 9 oyoaur algi 2c gsH- 2- gdgi yust i 2v ena r algi ot Bosd 2v ena r algi ot
CuOi i Rs lwP
) lL9 oHgk gt yi
nh A3FF0D042n oasyot A, 78, F34, 2147l5DF: 4D2. eg CodgA, F5Fb3F:

ngh I augayot	Nouy(. ol y(f ol t d				. ol y(Nouy(f ol t d				E gi y Ssi yf ol t d				
Wk g	B	W	U	**) pp**	- gd*	W	n	U	**) pp**	- gd*	B	n	U	**) pp**	- gd*	**my**
0F00 DF:D, : AF- 9	: 5	337	F	**373**	F	77	37	F	**4F**	:	3:	30	F	**07**	3F	**0, 5**
: A7- 9	: 3	b5	F	**304**	F	70	03	F	**4:**	:	3b	3:	F	**: 0**	3F	**0: 0**
c ol ulr Woys L	54	033	F	**04D**	F	3F4	: 5	F	**3, :**	5	: 0	07	F	**74**	0F	**, 4D**
, AF- 9	, 7	3: 7	F	**3DF**	F	05	3F	F	**: 5**	5	0D	0:	F	**73**	5	**054**
, A7- 9	, F	D	F	**30:**	:	77	3b	F	**4,**	0	37	00	F	**: 4**	b	**0: ,**
, AF- 9	: b	300	F	**353**	F	53	34	F	**4D**	3	00	3,	F	**: 5**	D	**047**
, A7- 9	, b	30F	F	**35b**	F	57	0:	F	**DD**	D	3:	35	F	**0b**	D	**0D6**
c ol ulr Woys L	34:	, 5F	F	**5: :**	:	0F4	5b	F	**045**	34	4D	47	F	**37:**	: 3	**3F50**
7AF- 9	57	335	F	**3D8**	F	5F	0F	F	**DF**	:	0F	3D	F	**: D**	3:	**0bb**
7A7- 9	D	33b	F	**0F:**	F	70	: 3	F	**D**	:	0D	: 3	F	**7b**	b	**: , 7**
7AF- 9	7D	D5	F	**3, ,**	F	77	: 3	F	**D5**	5	: 5	0b	F	**57**	3:	**0b7**
7A7- 9	, :	00	F	**57**	F	0b	0:	F	**70**	0	37	0,	F	**: b**	D	**375**
c ol ulr Woys L	07F	: , :	F	**7b:**	F	3b5	3F7	F	**: F3**	37	bb	3F0	F	**0F3**	, :	**3Fb7**
5AF- 9	57	0,	F	**Db**	F	, 4	, ,	F	**b3**	3	0:	0,	F	**, 4**	33	**004**
5A7- 9	7F	33	F	**53**	F	03	, F	F	**53**	:	: 3	: 7	F	**55**	7	**3DD**
5AF- 9	: 4	03	F	**7D**	F	, 5	: ,	F	**DF**	:	0:	07	F	**, D**	7	**3D6**
5A7- 9	, F	: b	F	**4b**	:	70	: 0	F	**D**	3F	0F	34	F	**: 4**	33	**0FF**
c ol ulr Woys L	3b0	b7	F	**0D4**	:	355	37F	F	**: 35**	3D	b4	3F3	F	**3bD**	: 0	**DF3**
4AF- 9	0b	70	F	**D8**	0	7:	0D	F	**D8**	4	3:	3D	F	**: 3**	D	**3b:**
4A7- 9	44	, 0	F	**33b**	0	04	3b	F	**, 5**	0	03	3b	F	**, F**	b	**0F7**
4AF- 9	53	5F	F	**303**	F	34	0F	F	**: 4**	,	0D	: ,	F	**50**	F	**00F**
4A7- 9	, ,	, ,	F	**DD**	F	37	33	F	**05**	0	00	: ,	F	**75**	3	**34F**
c ol ulr Woys L	033	3bD	F	**, Fb**	,	330	4D	F	**3bF**	37	D	3F7	F	**3Db**	3D	**4DD**
DAF- 9	07	, 4	F	**40**	F	3b	0	F	**03**	3	0F	04	F	**, 4**	F	**3, F**
DA7- 9	: ,	, 0	F	**45**	F	0:	3F	F	**: :**	:	0:	30	F	**: 7**	,	**3, ,**
DAF- 9	3:	: ,	F	**, 4**	F	00	7	F	**04**	F	3D	3b	F	**: 4**	5	**333**
DA7- 9	00	: D	F	**5F**	0	33	3F	F	**03**	F	0:	00	F	**, 7**	5	**305**
c ol ulr Woys L	b,	353	F	**077**	0	47	04	F	**3F0**	,	D	DF	F	**35,**	35	**703**
bAF- 9	: 0	, :	F	**47**	F	3,	30	F	**05**	0	: F	0,	F	**7,**	0	**377**
bA7- 9	: F	73	F	**D8**	F	00	4	F	**0b**	F	0b	: 0	F	**53**	:	**343**
bAF- 9	0b	70	F	**D8**	3	00	D	F	**: F**	0	: 7	: 5	F	**43**	0	**3D0**
bA7- 9	, :	5D	F	**333**	3	0,	37	F	**: b**	0	, D	4F	F	**33D**	5	**05D**
c ol ulr Woys L	3: ,	03,	F	**: , D**	0	D0	, 0	F	**30,**	5	3, 0	350	F	**: F,**	3:	**445**
3FAF- 9	0:	7F	F	**4:**	F	: 3	37	F	**, 5**	35	73	: b	F	**bF**	3F	**0Fb**
3FA7- 9	: 5	70	F	**DD**	F	0D	b	F	**: 4**	5	7b	5b	F	**30D**	,	**07:**
3FAF- 9	07	, 7	F	**4F**	F	05	33	F	**: 4**	5	70	5F	F	**330**	,	**03b**
3FA7- 9	3,	, 3	F	**77**	F	3b	37	F	**: ,**	F	: :	, 4	F	**DF**	3	**35b**
c ol ulr Woys L	bD	3DD	F	**0D5**	F	3F,	7F	F	**37,**	0D	3b7	037	F	**, 3F**	3b	**DFF**
33AF- 9	35	0D	F	**, ,**	F	35	0	F	**3D**	F	: 5	40	F	**3FD**	3	**34F**
33A7- 9	35	05	F	**, 0**	F	b	0	F	**33**	F	0:	3b	F	**, 0**	F	**b7**
c ol ulr Woys L	: 0	7,	F	**D5**	F	07	,	F	**0b**	F	7b	b3	F	**37F**	3	**057**
Woys L	3073	3b0,	F	**: 347**	3,	3F4,	753	F	**35: 7**	3Fb	D4F	b75	F	**3D05**	3b:	**55: 5**
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% neh(yi st d 9 oyoaur algi	b48l%	bD8l%	P%	**b48l%**	1	b58%	Db8l%	P%	**b: 8D%**	1	b08%	b48l%	P%	**b, 8b%**	1	b58%
c gsH	05	04	F	**7:**	1	: 0	74	F	**Db**	1	75	04	F	**D**	1	007
% c gsH	08%	38 %	P%	**38l%**	1	: 8%	3F80%	P%	**78 %**	1	58 %	08D%	P%	**, 8%**	1	: 8 %
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- gdgi yust i	1	1	1	1	3,	1	1	1	1	4:	1	1	1	1	375	
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5589707 - QUEEN ELIZABETH DRWY @ FIFTH AVE -... - TMC

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5589707 - QUEEN ELIZABETH DRWY @ PRINCESS PA... - TMC

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5589707 - QUEEN ELIZABETH DRWY @ PRINCESS PA... - TMC

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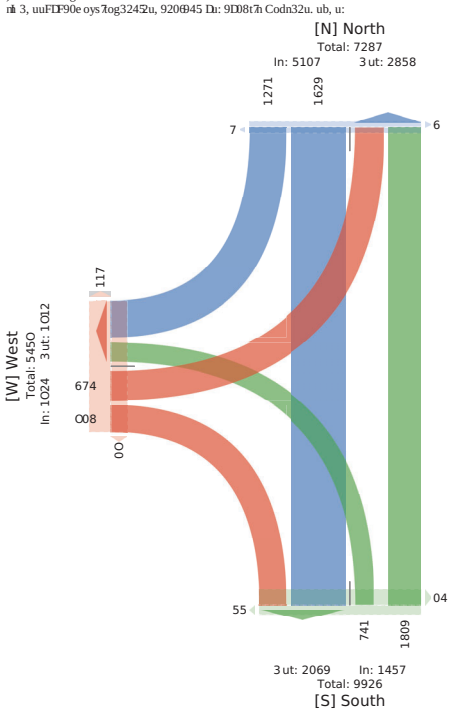

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5589707 - QUEEN ELIZABETH DRWY @ PRINCESS PA... - TMC

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0F00:3F:3, , (, 6l L	, b	30F	F	**38b**	F	86	05	F	**DD**	D	35	38	F	**0b**	D	**0D8**
6(FFl L	86	338	F	**3D8**	F	8F	0F	F	**DF**	5	0F	3D	F	**5D**	35	**0bb**
6(36l L	D	33b	F	**0F5**	F	60	53	F	**D5**	,	0D	53	F	**6b**	b	**5, 6**
6(5Fl L	6D	D8	F	**3, ,**	F	66	53	F	**D8**	8	58	0b	F	**86**	35	**0b6**
VPyg9	068	, , 3	F	**8b4**	F	050	3F6	F	**554**	03	b4	b,	F	**3b3**	, 5	**3006**
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l 1 T	F74,	F7b3b	:	**F7D8F**	:	F7Db6	F7D 4	:	**F7b8F**	:	F7B4,	F7I6D	:	**F7I56**	:	F7DDb
d eor yi gc HL PyPuava9ni	0, 4	, 50	F	**84b**	:	008	3F3	F	**504**	:	b0	Db	F	**3D8**	:	33D8
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1 ng- v	4	0	F	**b**	:	5	,	F	**4**	:	6	6	F	**3F**	:	08
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5589707 - QUEEN ELIZABETH DRWY @ PRINCESS PA... - TMC

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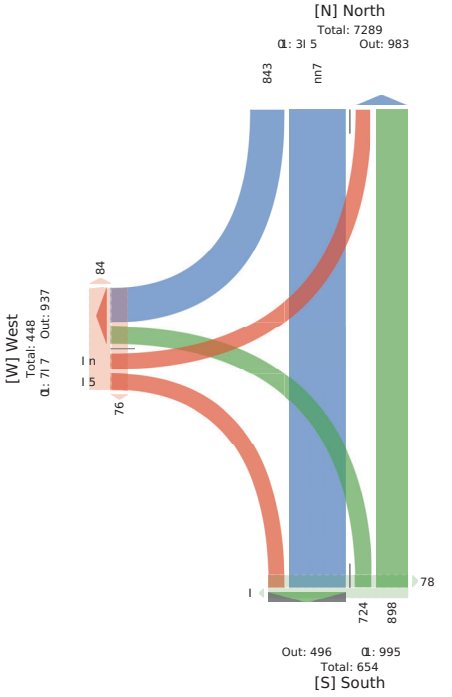

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APPENDIX B – INTERSECTION COLLISION DATA

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2015 **To:** December 31, 2021

Location: AYLMER AVE @ BANK ST

Traffic Control: Traffic signal **Total Collisions:** 18

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Jul-28, Tue,20:27	Clear	Rear end	Non-fatal injury	Dry	North	Slowing or stopping	Bicycle	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Cyclist	
2015-Aug-24, Mon,13:28	Rain	Rear end	P.D. only	Wet	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Mar-17, Thu,18:15	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Delivery van	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Pick-up truck	Other motor vehicle	
2016-Jun-12, Sun,11:35	Rain	SMV other	Non-fatal injury	Wet	East	Turning left	Automobile, station wagon	Pedestrian	1
2016-Jul-06, Wed,13:32	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Jul-18, Mon,17:37	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
2017-Jan-31, Tue,17:10	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2017-Jul-01, Sat,22:34	Clear	Rear end	Non-fatal injury	Wet	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Jul-08, Sat,18:29	Clear	SMV other	Non-fatal injury	Dry	North	Turning left	School bus	Pedestrian	1
2017-Aug-01, Tue,17:39	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Aug-30, Wed,08:10	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Dec-28, Fri,13:46	Rain	Angle	P.D. only	Wet	West	Turning left	Unknown	Other motor vehicle	0
					North	Going ahead	Delivery van	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2015 **To:** December 31, 2021

Location: AYLMER AVE @ BANK ST

Traffic Control: Traffic signal **Total Collisions:** 18

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Jan-05, Sat,01:45	Clear	Sideswipe	P.D. only	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Mar-14, Thu,21:55	Clear	Turning movement	P.D. only	Wet	South	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Sep-20, Fri,08:45	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Dec-21, Sat,16:00	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Passenger van	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Oct-10, Sat,11:39	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
2021-Mar-11, Thu,20:00	Rain	Sideswipe	P.D. only	Wet	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Pick-up truck	Other motor vehicle	

Location: BANK ST @ ECHO DR

Traffic Control: Stop sign **Total Collisions:** 9

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Jan-26, Mon,12:17	Clear	Rear end	P.D. only	Ice	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2015-May-06, Wed,11:23	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Jul-09, Thu,20:45	Clear	Angle	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Aug-16, Tue,17:39	Rain	Angle	P.D. only	Wet	East	Turning right	Pick-up truck	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2015 **To:** December 31, 2021

Location: BANK ST @ ECHO DR

Traffic Control: Stop sign **Total Collisions:** 9

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Jan-24, Tue,09:05	Freezing Rain	Approaching	P.D. only	Ice	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
					West	Unknown	Passenger van	Other motor vehicle	
					East	Unknown	Automobile, station wagon	Other motor vehicle	
					East	Unknown	Pick-up truck	Other motor vehicle	
2017-Feb-22, Wed,14:35	Clear	Angle	P.D. only	Dry	East	Turning left	Pick-up truck	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	
2019-Feb-05, Tue,08:39	Rain	Sideswipe	P.D. only	Wet	South	Unknown	Unknown	Other motor vehicle	0
					South	Stopped	Municipal transit bus	Other motor vehicle	
2019-Jun-26, Wed,23:50	Clear	Turning movement	P.D. only	Dry	South	Making "U" turn	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2021-Aug-20, Fri,14:15	Clear	Other	P.D. only	Dry	North	Reversing	Pick-up truck	Other motor vehicle	0
					South	Stopped	Pick-up truck	Other motor vehicle	

Location: BANK ST @ EXHIBITION WAY

Traffic Control: Traffic signal **Total Collisions:** 14

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Jan-08, Thu,12:14	Snow	Rear end	P.D. only	Packed snow	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Truck - closed	Other motor vehicle	
2015-Mar-14, Sat,23:43	Snow	Rear end	P.D. only	Loose snow	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2015-Jul-17, Fri,23:22	Clear	Turning movement	P.D. only	Wet	North	Going ahead	Passenger van	Other motor vehicle	0
					North	Making "U" turn	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2015 **To:** December 31, 2021

Location: BANK ST @ EXHIBITION WAY

Traffic Control: Traffic signal **Total Collisions:** 14

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Oct-13, Tue,12:03	Fog, mist, smoke, dust	Turning movement	Non-fatal injury	Wet	South	Turning left	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Pick-up truck	Other motor vehicle	
2015-Nov-06, Fri,11:04	Rain	Rear end	P.D. only	Wet	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Pick-up truck	Other motor vehicle	
2016-Sep-03, Sat,21:58	Clear	Turning movement	Non-fatal injury	Dry	South	Turning left	Automobile, station wagon	Cyclist	0
					North	Going ahead	Bicycle	Other motor vehicle	
2016-Nov-13, Sun,11:35	Clear	SMV other	Non-fatal injury	Dry	West	Turning left	Automobile, station wagon	Pedestrian	2
2016-Nov-24, Thu,06:52	Snow	Rear end	P.D. only	Loose snow	North	Turning right	Passenger van	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	
2017-Aug-12, Sat,11:20	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Mar-11, Sun,17:20	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
2018-Nov-13, Tue,03:36	Snow	SMV other	P.D. only	Wet	North	Going ahead	Automobile, station wagon	Curb	0
2018-Nov-20, Tue,21:00	Snow	Rear end	P.D. only	Wet	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Dec-06, Thu,21:45	Clear	Rear end	P.D. only	Wet	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Dec-08, Sun,13:30	Clear	Sideswipe	P.D. only	Dry	North	Unknown	Automobile, station wagon	Other motor vehicle	0
					North	Unknown	Automobile, station wagon	Other motor vehicle	

Location: BANK ST @ FIFTH AVE

Traffic Control: Traffic signal **Total Collisions:** 23

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2015 **To:** December 31, 2021

Location: BANK ST @ FIFTH AVE

Traffic Control: Traffic signal **Total Collisions:** 23

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Feb-06, Fri,17:49	Clear	Sideswipe	P.D. only	Slush	North	Going ahead	Delivery van	Other motor vehicle	0
					North	Stopped	Municipal transit bus	Other motor vehicle	
2015-Mar-15, Sun,16:59	Clear	Angle	P.D. only	Dry	South	Going ahead	Passenger van	Other motor vehicle	0
					East	Going ahead	Passenger van	Other motor vehicle	
2015-May-26, Tue,18:00	Clear	Angle	P.D. only	Dry	North	Going ahead	Pick-up truck	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Sep-03, Thu,10:18	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Mar-04, Fri,18:42	Clear	Sideswipe	P.D. only	Dry	North	Unknown	Automobile, station wagon	Other motor vehicle	0
					North	Unknown	Automobile, station wagon	Other motor vehicle	
2016-Oct-06, Thu,18:44	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Pick-up truck	Other motor vehicle	0
					South	Going ahead	Passenger van	Other motor vehicle	
2016-Oct-19, Wed,16:29	Clear	Turning movement	P.D. only	Dry	West	Turning right	Unknown	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Nov-25, Fri,19:26	Clear	Turning movement	P.D. only	Wet	North	Turning left	School bus	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2017-May-15, Mon,08:48	Clear	Turning movement	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Jun-26, Mon,22:42	Rain	Rear end	P.D. only	Wet	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
2017-Dec-16, Sat,16:52	Clear	SMV unattended vehicle	P.D. only	Wet	East	Turning left	Fire vehicle	Unattended vehicle	0

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Collision Details Report - Public Version

From: January 1, 2015 **To:** December 31, 2021

Location: BANK ST @ FIFTH AVE

Traffic Control: Traffic signal **Total Collisions:** 23

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Apr-26, Thu,07:12	Rain	Sideswipe	P.D. only	Wet	South	Changing lanes	Truck - closed	Other motor vehicle	0
					South	Stopped	Truck - tractor	Other motor vehicle	
2019-Mar-07, Thu,13:38	Clear	SMV other	Non-fatal injury	Dry	West	Turning left	Automobile, station wagon	Pedestrian	1
2019-Aug-16, Fri,23:17	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Oct-03, Thu,06:13	Clear	Turning movement	Non-fatal injury	Dry	North	Going ahead	Bicycle	Other motor vehicle	0
					South	Turning left	Automobile, station wagon	Cyclist	
2019-Oct-06, Sun,00:00	Rain	Angle	P.D. only	Wet	West	Turning right	Fire vehicle	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Nov-21, Thu,18:18	Rain	Turning movement	Non-fatal injury	Wet	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Jan-04, Sat,17:15	Clear	Rear end	P.D. only	Wet	North	Stopped	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Feb-15, Sat,14:00	Clear	Rear end	P.D. only	Packed snow	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Aug-28, Fri,11:58	Clear	Sideswipe	P.D. only	Dry	North	Pulling away from shoulder or curb	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Nov-05, Thu,11:11	Clear	SMV other	Non-fatal injury	Dry	West	Turning left	Pick-up truck	Pedestrian	1
2021-Mar-17, Wed,13:56	Clear	Turning movement	Non-fatal injury	Dry	West	Turning left	Automobile, station wagon	Cyclist	0
					East	Going ahead	Bicycle	Other motor vehicle	
2021-Mar-17, Wed,14:58	Clear	Rear end	Non-fatal injury	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	

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From: January 1, 2015 **To:** December 31, 2021

Location: BANK ST @ HOLMWOOD AVE

Traffic Control: Traffic signal **Total Collisions:** 21

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Jan-05, Mon,19:25	Clear	Rear end	Non-fatal injury	Slush	South	Unknown	Unknown	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2016-May-17, Tue,17:08	Clear	Rear end	P.D. only	Dry	North	Going ahead	Pick-up truck	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
2016-May-25, Wed,08:51	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Jun-16, Thu,09:00	Clear	Sideswipe	P.D. only	Dry	South	Going ahead	Motorcycle	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Jul-07, Thu,14:06	Clear	Rear end	P.D. only	Dry	North	Going ahead	Unknown	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2016-Aug-12, Fri,11:30	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Pick-up truck	Other motor vehicle	
2016-Nov-15, Tue,15:24	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2016-Dec-18, Sun,12:26	Clear	Approaching	Non-fatal injury	Loose snow	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Mar-17, Fri,12:17	Clear	Turning movement	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-May-10, Wed,20:45	Clear	Turning movement	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Aug-22, Wed,09:23	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Cyclist	0
					South	Going ahead	Bicycle	Other motor vehicle	
2018-Oct-05, Fri,22:45	Clear	Sideswipe	P.D. only	Dry	South	Unknown	Unknown	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	

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Collision Details Report - Public Version

From: January 1, 2015 **To:** December 31, 2021

Location: BANK ST @ HOLMWOOD AVE

Traffic Control: Traffic signal **Total Collisions:** 21

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2019-Nov-21, Thu,13:56	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Truck - dump	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Dec-13, Fri,18:00	Rain	Turning movement	P.D. only	Wet	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Unknown	Other motor vehicle	
2019-Dec-28, Sat,11:42	Clear	Turning movement	P.D. only	Wet	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2020-Jan-14, Tue,12:20	Clear	Rear end	P.D. only	Wet	North	Going ahead	Pick-up truck	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	
2020-Aug-15, Sat,20:23	Clear	Rear end	P.D. only	Dry	North	Unknown	Unknown	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Sep-04, Fri,11:00	Clear	Turning movement	P.D. only	Dry	South	Turning left	Pick-up truck	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2020-Sep-04, Fri,17:40	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2021-Jun-22, Tue,08:00	Clear	Other	P.D. only	Dry	West	Reversing	Truck - closed	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2021-Sep-20, Mon,11:35	Clear	Angle	P.D. only	Dry	East	Turning right	Unknown	Other motor vehicle	0
					North	Going ahead	Pick-up truck	Other motor vehicle	

Location: BANK ST @ MARCHE WAY

Traffic Control: Stop sign **Total Collisions:** 2

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Nov-25, Sun,06:25	Freezing Rain	SMV other	Non-fatal injury	Ice	West	Turning right	Automobile, station wagon	Pedestrian	1

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Collision Details Report - Public Version

From: January 1, 2015 **To:** December 31, 2021

Location: BANK ST @ MARCHE WAY

Traffic Control: Stop sign **Total Collisions:** 2

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2021-Aug-30, Mon,17:06	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					North	Turning right	Automobile, station wagon	Other motor vehicle	

Location: BANK ST @ SUNNYSIDE AVE

Traffic Control: Traffic signal **Total Collisions:** 37

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Jan-15, Thu,20:34	Clear	Sideswipe	P.D. only	Slush	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Jan-22, Thu,10:28	Clear	Rear end	P.D. only	Ice	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2015-Feb-11, Wed,22:08	Snow	Angle	P.D. only	Loose snow	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Mar-18, Wed,16:25	Clear	Rear end	P.D. only	Dry	South	Unknown	Unknown	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2015-May-13, Wed,18:10	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Pick-up truck	Other motor vehicle	
2015-May-26, Tue,07:02	Clear	Sideswipe	Non-fatal injury	Dry	East	Going ahead	Automobile, station wagon	Cyclist	0
					East	Going ahead	Bicycle	Other motor vehicle	
2015-Jun-18, Thu,15:38	Clear	Sideswipe	P.D. only	Dry	North	Going ahead	Truck - tractor	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2015-Jun-25, Thu,09:30	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Motorcycle	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2015-Jun-28, Sun,20:10	Rain	Rear end	P.D. only	Wet	West	Going ahead	Automobile, station wagon	Other motor vehicle	0
					West	Stopped	Automobile, station wagon	Other motor vehicle	

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From: January 1, 2015 **To:** December 31, 2021

Location: BANK ST @ SUNNYSIDE AVE

Traffic Control: Traffic signal **Total Collisions:** 37

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Sep-29, Tue,17:59	Rain	Turning movement	Non-fatal injury	Wet	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2015-Sep-30, Wed,15:00	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2015-Oct-15, Thu,12:42	Rain	Rear end	P.D. only	Wet	East	Going ahead	Pick-up truck	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2015-Dec-29, Tue,15:30	Snow	Sideswipe	P.D. only	Loose snow	North	Unknown	Unknown	Other motor vehicle	0
					North	Going ahead	Pick-up truck	Other motor vehicle	
2016-Jun-09, Thu,20:39	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Oct-08, Sat,21:31	Clear	Rear end	P.D. only	Dry	North	Going ahead	Unknown	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Nov-30, Wed,16:44	Rain	SMV other	Non-fatal injury	Wet	South	Going ahead	Automobile, station wagon	Pedestrian	1
2016-Dec-17, Sat,11:41	Clear	Rear end	P.D. only	Loose snow	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Jan-28, Sat,08:58	Rain	Turning movement	P.D. only	Wet	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Mar-14, Tue,12:42	Clear	Turning movement	P.D. only	Loose snow	North	Turning left	Pick-up truck	Other motor vehicle	0
					South	Going ahead	Passenger van	Other motor vehicle	
2017-May-20, Sat,17:53	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	

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Collision Details Report - Public Version

From: January 1, 2015 **To:** December 31, 2021

Location: BANK ST @ SUNNYSIDE AVE

Traffic Control: Traffic signal **Total Collisions:** 37

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Jun-25, Sun,09:30	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Aug-10, Thu,13:59	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Truck - tractor	Other motor vehicle	
2017-Sep-11, Mon,07:46	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Sep-25, Mon,21:17	Clear	Turning movement	Non-fatal injury	Dry	East	Turning left	Bicycle	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Cyclist	
2017-Nov-09, Thu,21:06	Rain	SMV other	Non-fatal injury	Wet	South	Turning left	Automobile, station wagon	Pedestrian	1
2018-Aug-01, Wed,16:36	Clear	Turning movement	P.D. only	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Sep-14, Fri,13:34	Clear	SMV other	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Pedestrian	1
2018-Oct-06, Sat,16:40	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Municipal transit bus	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2018-Oct-31, Wed,15:51	Rain	Rear end	Non-fatal injury	Wet	South	Going ahead	Passenger van	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Feb-02, Sat,09:50	Snow	Rear end	P.D. only	Loose snow	South	Going ahead	Unknown	Other motor vehicle	0
					South	Stopped	Pick-up truck	Other motor vehicle	
2019-Apr-26, Fri,15:15	Rain	Sideswipe	P.D. only	Wet	North	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Sep-27, Fri,14:04	Clear	Sideswipe	P.D. only	Dry	South	Stopped	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	

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From: January 1, 2015 **To:** December 31, 2021

Location: BANK ST @ SUNNYSIDE AVE

Traffic Control: Traffic signal **Total Collisions:** 37

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2020-Aug-08, Sat,17:53	Clear	Sideswipe	P.D. only	Dry	South	Turning right	Municipal transit bus	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	
2021-Feb-15, Mon,08:29	Clear	Turning movement	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2021-May-11, Tue,10:51	Clear	Turning movement	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					South	Turning left	Pick-up truck	Other motor vehicle	
2021-Aug-26, Thu,15:23	Clear	SMV other	Non-fatal injury	Dry	North	Going ahead	Motorcycle	Skidding/sliding	0
2021-Oct-02, Sat,01:00	Rain	Turning movement	P.D. only	Wet	South	Turning left	Pick-up truck	Other motor vehicle	0
					North	Going ahead	Automobile, station wagon	Other motor vehicle	

Location: BANK ST @ WILTON CRES

Traffic Control: Stop sign **Total Collisions:** 26

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Jan-30, Fri,15:45	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2015-Apr-03, Fri,22:13	Rain	Turning movement	P.D. only	Wet	South	Turning right	Pick-up truck	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Sep-25, Fri,12:22	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Cyclist	0
					South	Going ahead	Bicycle	Other motor vehicle	
2015-Oct-25, Sun,22:40	Clear	Turning movement	P.D. only	Dry	North	Turning left	Pick-up truck	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Feb-07, Sun,12:07	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Truck - closed	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	

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From: January 1, 2015 **To:** December 31, 2021

Location: BANK ST @ WILTON CRES

Traffic Control: Stop sign **Total Collisions:** 26

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Apr-01, Fri,18:31	Clear	Angle	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Municipal transit bus	Other motor vehicle	
2016-Apr-19, Tue,14:40	Clear	Rear end	P.D. only	Dry	North	Going ahead	Delivery van	Other motor vehicle	0
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2016-May-28, Sat,14:38	Clear	Angle	P.D. only	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Jun-15, Wed,14:08	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Cyclist	0
					South	Going ahead	Bicycle	Other motor vehicle	
2016-Oct-01, Sat,13:19	Clear	Angle	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	
2016-Oct-11, Tue,10:30	Clear	Angle	Non-fatal injury	Dry	East	Turning right	Automobile, station wagon	Cyclist	0
					North	Going ahead	Bicycle	Other motor vehicle	
2016-Dec-12, Mon,14:20	Drifting Snow	Rear end	P.D. only	Packed snow	South	Going ahead	Municipal transit bus	Other motor vehicle	0
					South	Slowing or stopping	Pick-up truck	Other motor vehicle	
2017-Jul-28, Fri,17:07	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Cyclist	0
					South	Going ahead	Bicycle	Other motor vehicle	
2017-Sep-24, Sun,13:23	Clear	Sideswipe	Non-fatal injury	Dry	North	Stopped	Automobile, station wagon	Cyclist	0
					North	Going ahead	Bicycle	Other motor vehicle	
2017-Dec-14, Thu,08:45	Clear	Angle	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	0
					South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2018-Jan-12, Fri,12:22	Rain	Sideswipe	P.D. only	Wet	North	Unknown	Automobile, station wagon	Other motor vehicle	0
					North	Unknown	Automobile, station wagon	Other motor vehicle	

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From: January 1, 2015 **To:** December 31, 2021

Location: BANK ST @ WILTON CRES

Traffic Control: Stop sign **Total Collisions:** 26

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2018-Jun-19, Tue,13:49	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Cyclist	0
					South	Going ahead	Bicycle	Other motor vehicle	
2018-Oct-19, Fri,22:50	Clear	Rear end	Non-fatal injury	Wet	North	Going ahead	Pick-up truck	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Nov-15, Thu,17:00	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-Dec-12, Wed,11:20	Clear	Rear end	P.D. only	Dry	East	Unknown	Unknown	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Jun-01, Sat,15:40	Clear	Turning movement	P.D. only	Dry	South	Making "U" turn	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jun-23, Sun,22:45	Clear	Turning movement	P.D. only	Dry	North	Turning left	Unknown	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Jul-14, Sun,10:45	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Dec-21, Sat,06:39	Clear	SMV other	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Curb	0
2020-Feb-21, Fri,15:23	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
					North	Turning left	Automobile, station wagon	Other motor vehicle	
2021-Nov-27, Sat,19:59	Rain	Turning movement	Non-fatal injury	Wet	North	Turning left	Pick-up truck	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2015 **To:** December 31, 2021

Location: FIFTH AVE @ QUEEN ELIZABETH DRWY

Traffic Control: Traffic signal **Total Collisions:** 10

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Jan-12, Tue,15:10	Snow	Rear end	P.D. only	Dry	South	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2016-Jan-13, Wed,08:30	Clear	Sideswipe	P.D. only	Loose snow	North	Unknown	Unknown	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Apr-15, Fri,18:32	Clear	Turning movement	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Pick-up truck	Other motor vehicle	
2016-Apr-23, Sat,19:45	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	Pick-up truck	Other motor vehicle	0
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Aug-20, Sat,17:15	Clear	SMV other	P.D. only	Dry	South	Turning left	Pick-up truck	Pole (sign, parking meter)	0
2016-Oct-16, Sun,10:35	Rain	Turning movement	Non-fatal injury	Wet	South	Making "U" turn	Automobile, station wagon	Other motor vehicle	0
					South	Overtaking	Pick-up truck	Other motor vehicle	
2016-Dec-29, Thu,16:50	Snow	Rear end	Non-fatal injury	Slush	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Slowing or stopping	Truck-other	Other motor vehicle	
2017-Jul-06, Thu,20:45	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					North	Slowing or stopping	Truck - closed	Other motor vehicle	
2017-Dec-15, Fri,18:19	Snow	Rear end	P.D. only	Loose snow	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Passenger van	Other motor vehicle	
2019-Jan-17, Thu,17:20	Clear	Rear end	P.D. only	Wet	South	Going ahead	Passenger van	Other motor vehicle	0
					South	Stopped	Pick-up truck	Other motor vehicle	

Location: PRINCESS PATRICIA WAY @ QUEEN ELIZABETH DRWY

Traffic Control: Stop sign **Total Collisions:** 8

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped

Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2015 **To:** December 31, 2021

Location: PRINCESS PATRICIA WAY @ QUEEN ELIZABETH DRWY

Traffic Control: Stop sign **Total Collisions:** 8

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-May-18, Wed,11:56	Clear	Rear end	P.D. only	Dry	North	Going ahead	Motorcycle	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2017-May-06, Sat,15:30	Rain	Approaching	Non-fatal injury	Wet	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Jun-30, Fri,17:48	Clear	Rear end	P.D. only	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle	0
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2018-Mar-19, Mon,23:36	Clear	Sideswipe	P.D. only	Dry	South	Merging	Automobile, station wagon	Other motor vehicle	0
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2019-Feb-15, Fri,18:12	Clear	Angle	P.D. only	Wet	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2019-Mar-03, Sun,21:00	Clear	Angle	P.D. only	Wet	South	Going ahead	Automobile, station wagon	Other motor vehicle	0
					East	Turning left	Automobile, station wagon	Other motor vehicle	
2019-Apr-22, Mon,20:38	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Motorcycle	Other motor vehicle	
2019-Aug-24, Sat,17:05	Clear	Angle	Non-fatal injury	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	0
					South	Going ahead	Automobile, station wagon	Other motor vehicle	

APPENDIX C – NCHRP 684 INTERNAL TRIP CAPTURE ESTIMATION WORKSHEETS

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	Lansdowne 2.0 - Phase 1 (Event Centre)	**Organization:**	Momentum
Project Location:	Ottawa, Ontario	**Performed By:**	
Scenario Description:	Lansdowne 2.0 Full Build-Out	**Date:**	13-Jan-25
Analysis Year:	2033	**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	710	51	1000-sqft	77	68	9
Retail	820	114	1000-sqft	95	59	36
Restaurant	930	158	1000-sqft	226	113	113
Cinema/Entertainment	445	60	1000-sqft	10	5	5
Residential	222	1,050	dwelling units	284	74	210
Hotel	-	-	-	0		
All Other Land Uses[2]	-	-	-	0		
				692	319	373

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.26	25%	39%	1.26	25%	39%
Retail	1.26	25%	39%	1.26	25%	39%
Restaurant	1.26	25%	39%	1.26	25%	39%
Cinema/Entertainment	1.26	25%	39%	1.26	25%	39%
Residential	1.26	25%	39%	1.26	25%	39%
Hotel	1.26	25%	39%	1.26	25%	39%
All Other Land Uses[2]	1.26	25%	39%	1.26	25%	39%

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		3	7	0	0	0
Retail	3		6	0	2	0
Restaurant	12	6		0	5	0
Cinema/Entertainment	0	0	0		0	0
Residential	3	3	28	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	870	401	469
Internal Capture Percentage	18%	19%	17%
External Vehicle-Trips[5]	204	91	113
External Transit-Trips[6]	181	82	99
External Non-Motorized Trips[6]	277	126	151

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	21%	91%
Retail	16%	24%
Restaurant	29%	16%
Cinema/Entertainment	0%	0%
Residential	8%	13%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Lansdowne 2.0 - Phase 1 (Event Centre)
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.26	68	86	1.26	9	11
Retail	1.26	59	74	1.26	36	45
Restaurant	1.26	113	142	1.26	113	142
Cinema/Entertainment	1.26	5	6	1.26	5	6
Residential	1.26	74	93	1.26	210	265
Hotel	1.26	0	0	1.26	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		3	7	0	0	0
Retail	13		6	0	6	0
Restaurant	44	20		0	6	4
Cinema/Entertainment	0	0	0		0	0
Residential	5	3	53	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		24	33	0	0	0
Retail	3		71	0	2	0
Restaurant	12	6		0	5	0
Cinema/Entertainment	0	0	0		0	0
Residential	3	13	28	0		0
Hotel	3	3	9	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	18	68	86	19	17	27
Retail	12	62	74	17	16	24
Restaurant	41	101	142	29	25	39
Cinema/Entertainment	0	6	6	2	2	2
Residential	7	86	93	24	22	34
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	10	1	11	1	0	0
Retail	11	34	45	10	9	13
Restaurant	23	119	142	34	30	46
Cinema/Entertainment	0	6	6	2	2	2
Residential	34	231	265	66	58	90
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:		**Organization:**	Momentum
Project Location:	Ottawa, Ontario	**Performed By:**	
Scenario Description:	Lansdowne 2.0 Full Build-Out	**Date:**	13-Jan-25
Analysis Year:	2033	**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	710	51	1000-sqft	82	21	61
Retail	820	114	1000-sqft	387	186	201
Restaurant	930	158	1000-sqft	1,982	1,090	892
Cinema/Entertainment	445	60	1000-sqft	372	350	22
Residential	222	1,050	dwelling units	336	208	128
Hotel	-	-	-	0		
All Other Land Uses[2]	-	-	-	0		
				3,159	1,855	1,304

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.26	25%	39%	1.26	25%	39%
Retail	1.26	25%	39%	1.26	25%	39%
Restaurant	1.26	25%	39%	1.26	25%	39%
Cinema/Entertainment	1.26	25%	39%	1.26	25%	39%
Residential	1.26	25%	39%	1.26	25%	39%
Hotel	1.26	25%	39%	1.26	25%	39%
All Other Land Uses[2]	1.26	25%	39%	1.26	25%	39%

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		15	3	0	2	0
Retail	5		73	10	66	0
Restaurant	8	117		90	42	0
Cinema/Entertainment	1	6	9		2	0
Residential	6	23	34	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	3,979	2,336	1,643
Internal Capture Percentage	26%	22%	31%
External Vehicle-Trips[5]	844	521	323
External Transit-Trips[6]	741	457	284
External Non-Motorized Trips[6]	1,152	711	441

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	77%	26%
Retail	69%	61%
Restaurant	9%	23%
Cinema/Entertainment	23%	64%
Residential	43%	39%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	0
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.26	21	26	1.26	61	77
Retail	1.26	186	234	1.26	201	253
Restaurant	1.26	1090	1373	1.26	892	1124
Cinema/Entertainment	1.26	350	441	1.26	22	28
Residential	1.26	208	262	1.26	128	161
Hotel	1.26	0	0	1.26	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		15	3	0	2	0
Retail	5		73	10	66	13
Restaurant	34	461		90	202	79
Cinema/Entertainment	1	6	9		2	1
Residential	6	68	34	0		5
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		19	27	4	10	0
Retail	8		398	115	121	0
Restaurant	8	117		141	42	0
Cinema/Entertainment	2	9	41		10	0
Residential	15	23	192	0		0
Hotel	0	5	69	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	20	6	26	2	2	2
Retail	161	73	234	21	18	28
Restaurant	119	1254	1373	358	314	489
Cinema/Entertainment	100	341	441	98	85	133
Residential	112	150	262	42	38	59
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	20	57	77	17	14	22
Retail	154	99	253	28	25	39
Restaurant	257	867	1124	248	217	338
Cinema/Entertainment	18	10	28	2	3	4
Residential	63	98	161	28	25	38
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

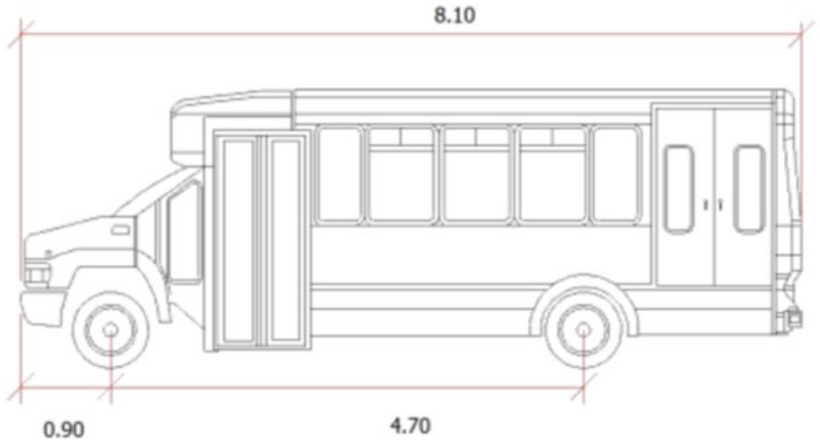
[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

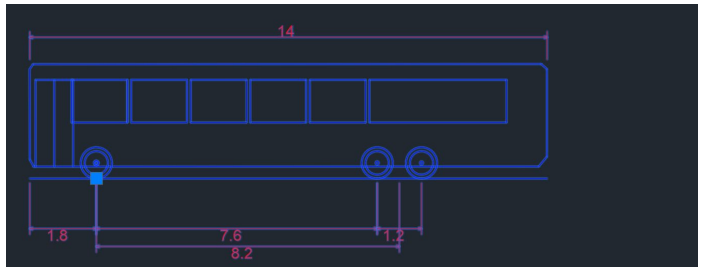
*Indicates computation that has been rounded to the nearest whole number.

APPENDIX D – VEHICLE SWEPT PATH ANALYSIS

WB-20 - Interstate Semi-Trailer

Overall Length	22.410m
Overall Width	2.590m
Overall Body Height	4.110m
Min Body Ground Clearance	0.407m
Max Track Width	2.590m
Lock to lock time	6.00s
Max Steering Angle (Virtual)	28.40°



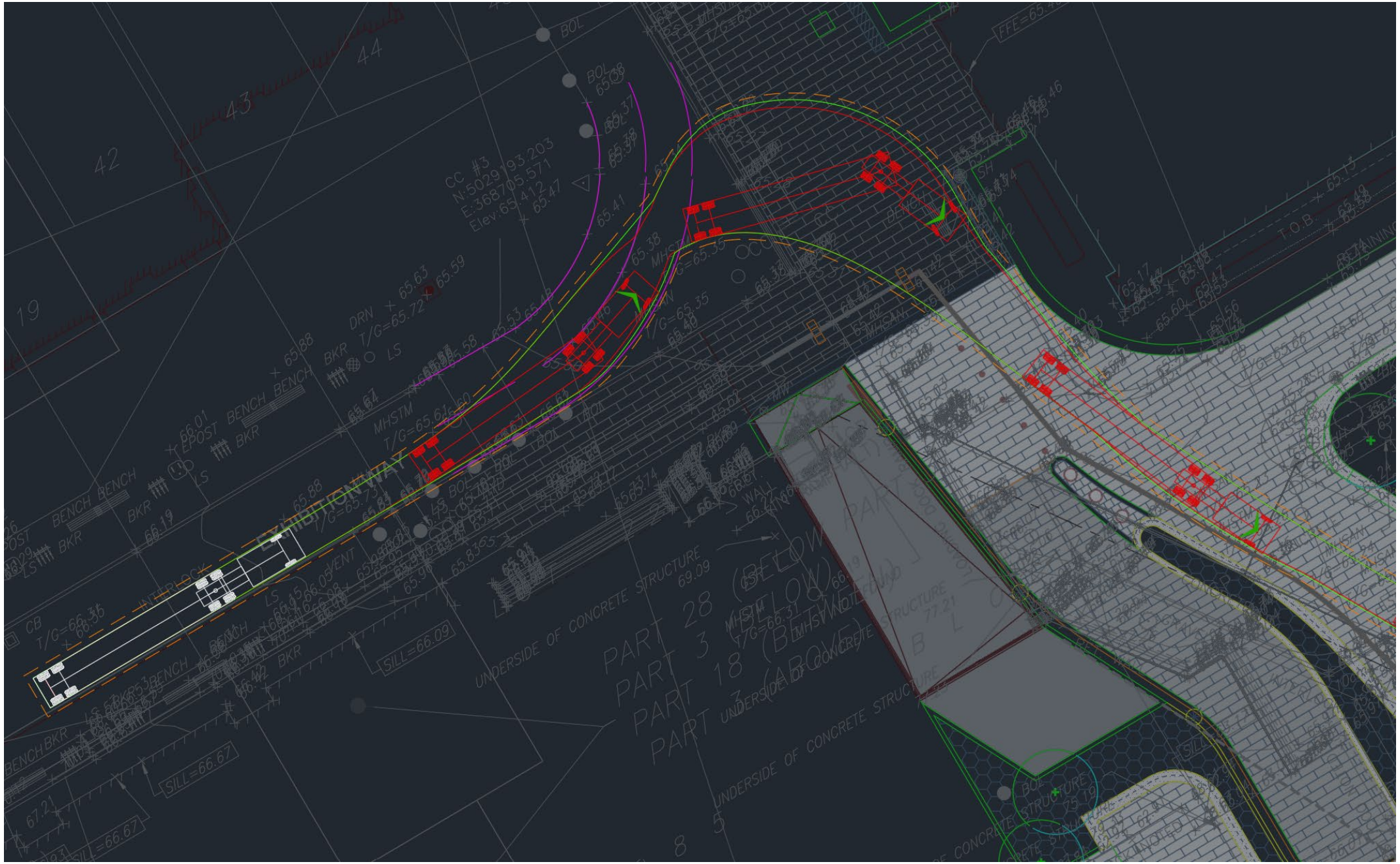


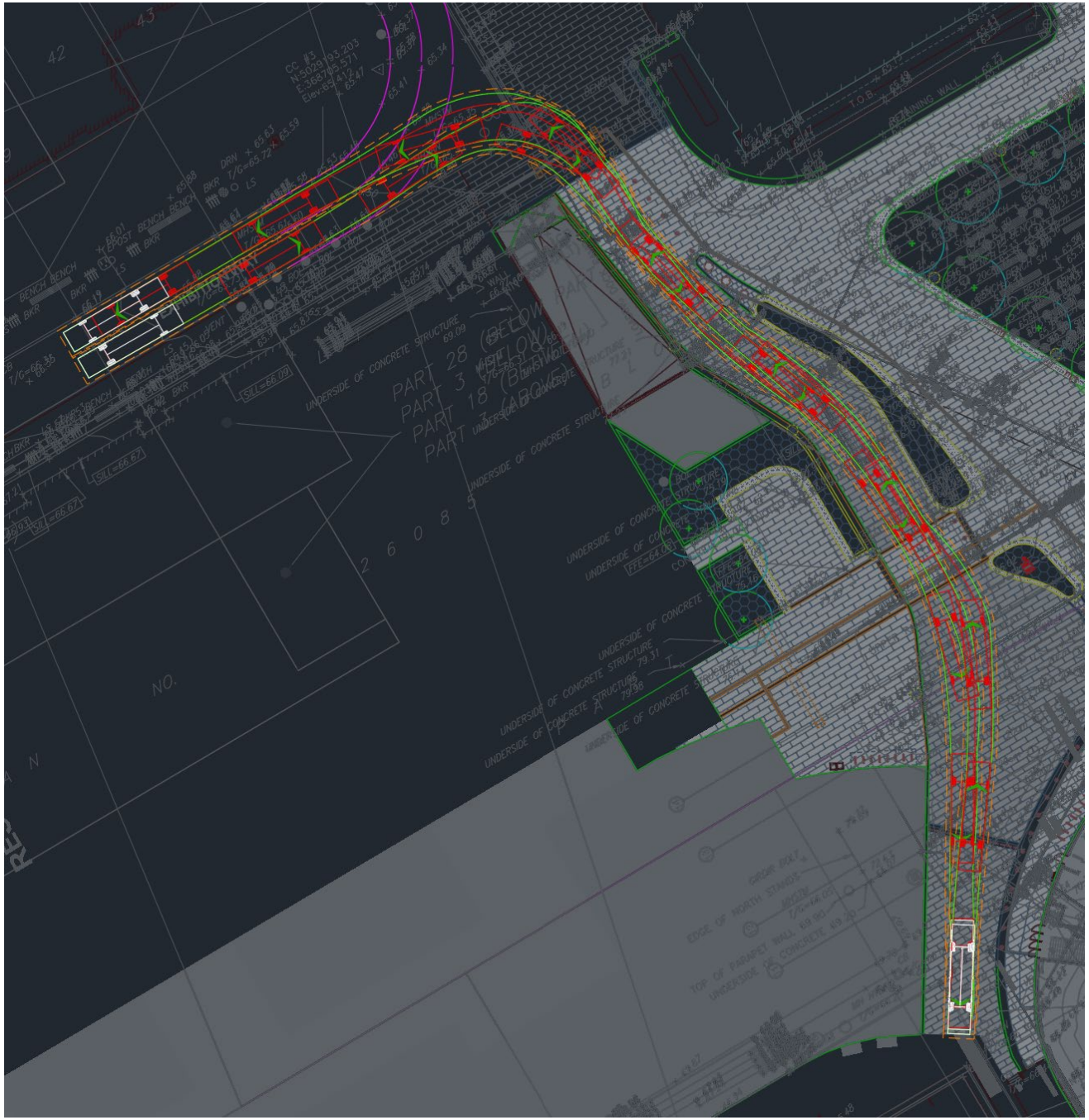
I-BUS - Intercity Bus

Overall Length	14.000m
Overall Width	2.400m
Overall Body Height	3.084m
Min Body Ground Clearance	0.319m
Track Width	2.400m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	13.900m

Exhibition Access

ParaTranspo

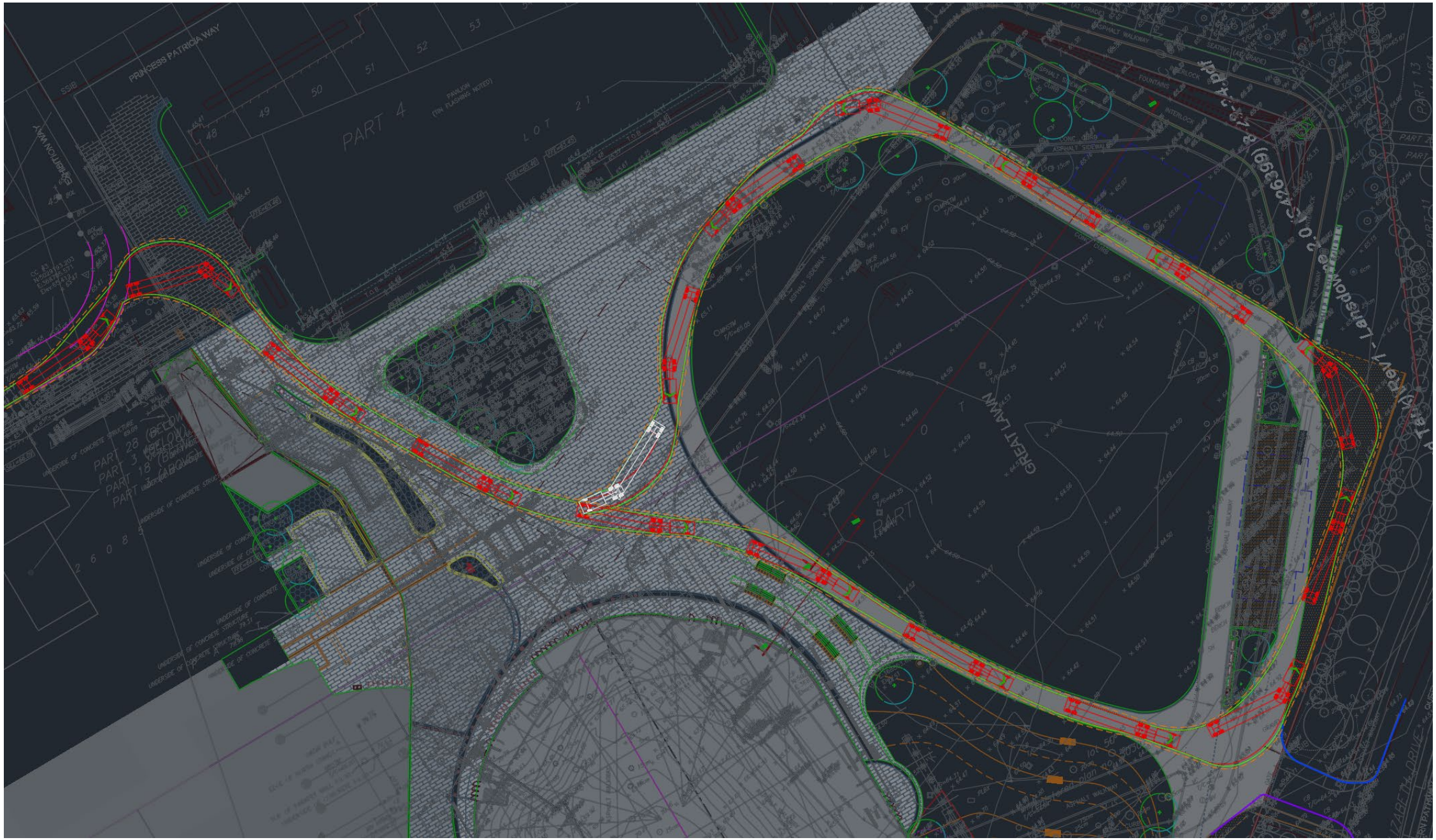

WB-20


PART 28 (BELOW)
PART 3 (BELOW)
PART 18 (BELOW)
UNDERSIDE OF CONCRETE STRUCTURE
EDGE OF NORTH STAND
TOP OF PARAPET WALL
RETAINING WALL

Fire Truck

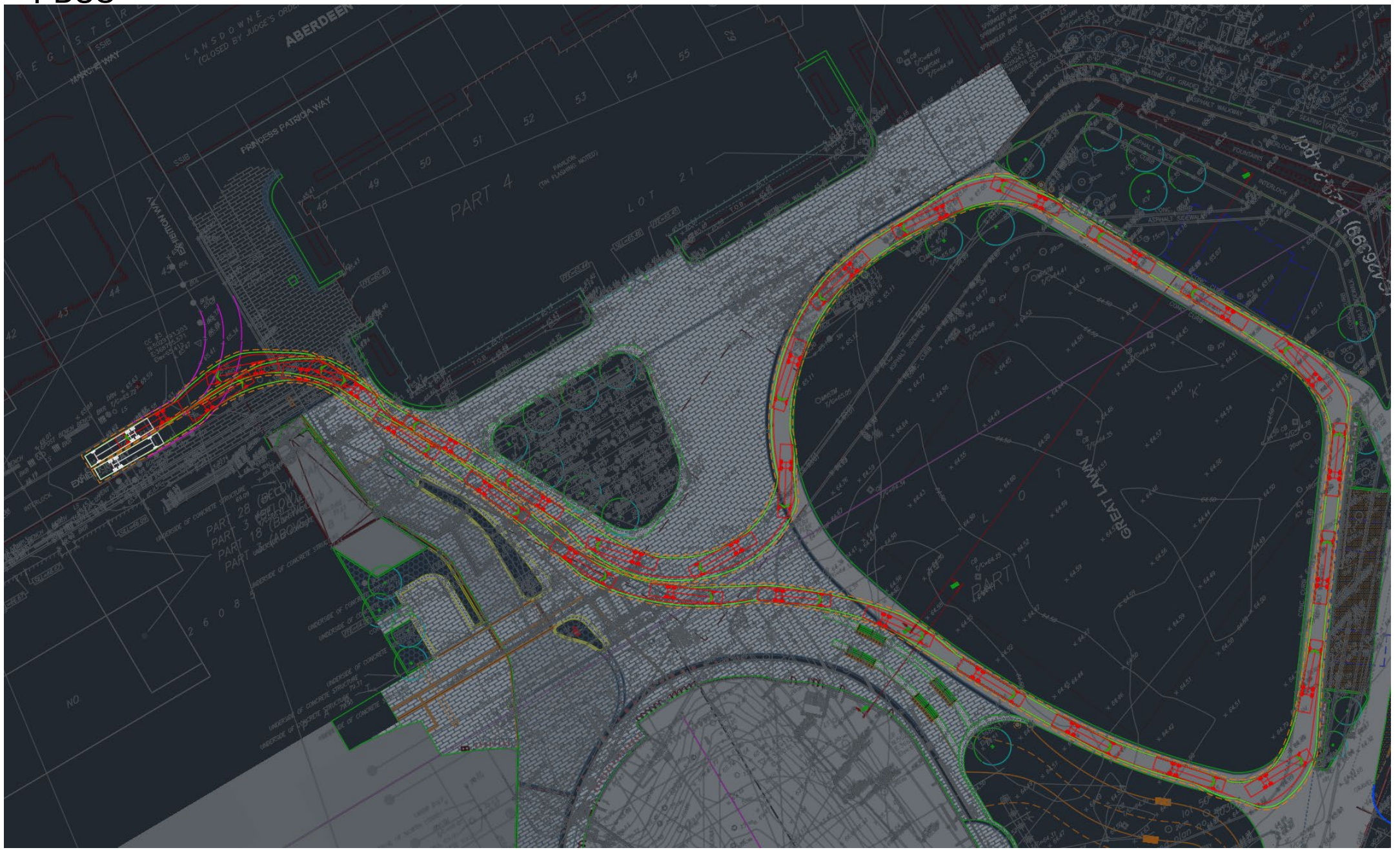
SE Stage Access

WB-20


PRINCESS PATRICIA WAY
PART 4
LOT 21
GREAT LAWN
PART 1
PART 28
PART 3
PART 18
PART 3
UNDERSIDE OF CONCRETE STRUCTURE

Bus Circulation

I-BUS


ABERDEEN
PRINCESS PATRICIA WAY
PART 4
LOT 21
GREAT LAWN
PART 1
PART 28 (BELOW)
PART 3 (BELOW)
PART 18 (BELOW)
PART 3 (ABOVE)
UNDERSIDE OF CONCRETE STRUCTURE
INTERLOCK
ASPHALT SIDEWALK
SPRINKLER BOX
SEATING (AT GRADE)
FOUNTAINS
CONC. CURB
NO

APPENDIX E – MMLOS ANALYSIS DATA

Multi-Modal Level of Service - Intersections Form

Consultant	Momentum	**Project**	Lansdowne 2.0 - Phase 1 EC
Scenario	Existing Conditions	**Date**	January 21 2025
Comments	All signalized intersections		

INTERSECTIONS		Bank Street & Fifth Avenue				Bank Street & Holmwood Avenue				Bank Street & Exhibition Way				Bank Street & Aylmer Avenue				Bank Street & Sunnyside Ave				Queen Elizabeth Driveway & Fifth Avenue			
Crossing Side		NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
Pedestrian	Lanes	4	4	3	0 - 2	4	4	0 - 2	0 - 2	5	4	3		4	4		0 - 2	4	4	0 - 2	0 - 2	0 - 2	0 - 2		0 - 2
	Median	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m		No Median - 2.4 m	No Median - 2.4 m		No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m		No Median - 2.4 m
	Conflicting Left Turns	Permissive	Permissive	Permissive	Permissive	Permissive	No left turn / Prohib.	Permissive	Permissive	No left turn / Prohib.	Permissive	Protected/ Permissive		Permissive	No left turn / Prohib.		Permissive	Permissive	Permissive	Protected/ Permissive	Permissive	Permissive	No left turn / Prohib.		Permissive
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	No right turn	Permissive or yield control		No right turn	Permissive or yield control		Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	No right turn	Permissive or yield control		Permissive or yield control
	Right Turns on Red (RToR) ?	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR allowed	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR allowed		RTOR prohibited	RTOR allowed		RTOR allowed	RTOR allowed	RTOR prohibited	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR allowed		RTOR prohibited
	Ped Signal Leading Interval?	No	No	No	No	Yes	Yes	No	No	Yes	Yes	No		Yes	Yes		No	Yes	Yes	No	No	Yes	Yes		Yes
	Right Turn Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Right Turn	No Channel		No Right Turn	No Channel		No Channel	No Channel	No Channel	No Channel	No Channel	No Right Turn	No Channel		No Channel
	Corner Radius	3-5m	3-5m	3-5m	3-5m	3-5m	3-5m	3-5m	3-5m	10-15m	No Right Turn	10-15m		No Right Turn	3-5m		3-5m	5-10m	5-10m	5-10m	5-10m	No Right Turn	3-5m		5-10m
	Crosswalk Type	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Std transverse markings	Std transverse markings	Std transverse markings		Zebra stripe hi-vis markings	Zebra stripe hi-vis markings		Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings		Zebra stripe hi-vis markings
	PETSI Score	**58**	**58**	**75**	**90**	**60**	**71**	**90**	**90**	**47**	**73**	**70**		**76**	**68**		**90**	**59**	**62**	**89**	**89**	**108**	**100**		**94**
	Ped. Exposure to Traffic LoS	**D**	**D**	**B**	**A**	**C**	**C**	**A**	**A**	**D**	**C**	**C**	-	**B**	**C**	-	**A**	**D**	**C**	**B**	**B**	**A**	**A**	-	**A**
	Cycle Length	75	75	75	75	75	75	75	75	75	75	75		90	90		90	90	90	90	90	80	80		80
	Effective Walk Time	11	11	33	33	7	7	37	37	10	10	19		10	10		52	12	12	24	24	18	18		35
	Average Pedestrian Delay	**27**	**27**	**12**	**12**	**31**	**31**	**10**	**10**	**28**	**28**	**21**		**36**	**36**		**8**	**34**	**34**	**24**	**24**	**24**	**24**		**13**
	Pedestrian Delay LoS	**C**	**C**	**B**	**B**	**D**	**D**	**B**	**B**	**C**	**C**	**C**	-	**D**	**D**	-	**A**	**D**	**D**	**C**	**C**	**C**	**C**	-	**B**
	Level of Service	**D**	**D**	**B**	**B**	**D**	**D**	**B**	**B**	**D**	**C**	**C**	-	**D**	**D**	-	**A**	**D**	**D**	**C**	**C**	**C**	**C**	-	**B**
		D				**D**				**D**				**D**				**D**				**C**			
Approach From		NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
Bicycle	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic		Mixed Traffic	Mixed Traffic		Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP		Curb Bike Lane, Cycletrack or MUP
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank>											≤ 50 m											Not Applicable		Not Applicable
	Dedicated Right Turning Speed	>25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h		>25 km/h	>25 km/h		>25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h	Not Applicable		
	Cyclist Through Movement											E	-			-							**Not Applicable**	-	**Not Applicable**
	Separated or Mixed Traffic	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	-	**Mixed Traffic**	**Mixed Traffic**	-	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Separated**	-	**Separated**
	Left Turn Approach	One lane crossed	One lane crossed	No lane crossed	No lane crossed	No lane crossed	One lane crossed	No lane crossed	No lane crossed	≥ 2 lanes crossed		One lane crossed		One lane crossed	One lane crossed		No lane crossed	One lane crossed	One lane crossed	No lane crossed	No lane crossed	No lane crossed	No lane crossed		No lane crossed
	Operating Speed	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	≤ 40 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	≤ 40 km/h	≤ 40 km/h	> 40 to ≤ 50 km/h		≤ 40 km/h		> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h		≤ 40 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	≤ 40 km/h	≤ 40 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h		> 40 to ≤ 50 km/h
	Left Turning Cyclist	**D**	**D**	**B**	**B**	**B**	**D**	**B**	**B**	**E**	-	**B**	-	**D**	**D**	-	**B**	**D**	**D**	**B**	**B**	**B**	**B**	-	**B**
	Level of Service	**D**	**D**	**B**	**B**	**B**	**D**	**B**	**B**	**E**	-	**E**	-	**D**	**D**	-	**B**	**D**	**D**	**B**	**B**	**B**	**B**	-	**B**
		D				**D**				**E**				**D**				**D**				**B**			
Transit	Average Signal Delay	≤ 10 sec	≤ 10 sec	≤ 30 sec	≤ 40 sec	≤ 10 sec	≤ 10 sec		≤ 40 sec	≤ 10 sec	≤ 10 sec	≤ 30 sec		≤ 10 sec	≤ 10 sec		≤ 40 sec	≤ 30 sec	≤ 10 sec	> 40 sec	> 40 sec				
	Level of Service	**B**	**B**	**D**	**E**	**B**	**B**	-	**E**	**B**	**B**	**D**	-	**B**	**B**	-	**E**	**D**	**B**	**F**	**F**	-	-	-	-
		E				**E**				**D**				**E**				**F**				-			
Truck	Effective Corner Radius	< 10 m	< 10 m	< 10 m	< 10 m	< 10 m	< 10 m		< 10 m		10 - 15 m	10 - 15 m		< 10 m			< 10 m	< 10 m	< 10 m	< 10 m	< 10 m				
	Number of Receiving Lanes on Departure from Intersection	1	1	≥ 2	1	1	1		1		≥ 2	≥ 2		1			≥ 2	1	1	≥ 2	≥ 2				
	Level of Service	**F**	**F**	**D**	**F**	**F**	**F**	-	**F**	-	**B**	**B**	-	**F**	-	-	**D**	**F**	**F**	**D**	**D**	-	-	-	-
		F				**F**				**B**				**F**				**F**				-			
Auto	Volume to Capacity Ratio	0.61 - 0.70				0.61 - 0.70				0.61 - 0.70				0.0 - 0.60				0.91 - 1.00				0.71 - 0.80			
	Level of Service	**B**				**B**				**B**				**A**				**E**				**C**			

Multi-Modal Level of Service - Intersections Form

Consultant	Momentum	**Project**	Lansdowne 2.0 - Phase 1 EC
Scenario	2033 Total Future Conditions	**Date**	January 21 2025
Comments	All signalized intersections		

INTERSECTIONS		Bank Street & Fifth Avenue				Bank Street & Holmwood Avenue				Bank Street & Exhibition Way				Bank Street & Aylmer Avenue				Bank Street & Sunnyside Ave				Queen Elizabeth Driveway & Fifth Avenue			
Crossing Side		NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
Pedestrian	Lanes	4	4	3	0 - 2	4	4	0 - 2	0 - 2	5	4	3		4	4		0 - 2	4	4	0 - 2	0 - 2	0 - 2	0 - 2		0 - 2
	Median	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m		No Median - 2.4 m	No Median - 2.4 m		No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m	No Median - 2.4 m		No Median - 2.4 m
	Conflicting Left Turns	Permissive	Permissive	Permissive	Permissive	Permissive	No left turn / Prohib.	Permissive	Permissive	No left turn / Prohib.	Permissive	Protected/ Permissive		Permissive	No left turn / Prohib.		Permissive	Permissive	Permissive	Protected/ Permissive	Permissive	Permissive	No left turn / Prohib.		Permissive
	Conflicting Right Turns	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	No right turn	Permissive or yield control		No right turn	Permissive or yield control		Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	Permissive or yield control	No right turn	Permissive or yield control		Permissive or yield control
	Right Turns on Red (RToR) ?	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR allowed	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR allowed		RTOR prohibited	RTOR allowed		RTOR allowed	RTOR allowed	RTOR prohibited	RTOR allowed	RTOR allowed	RTOR prohibited	RTOR allowed		RTOR prohibited
	Ped Signal Leading Interval?	No	No	No	No	Yes	Yes	No	No	Yes	Yes	No		Yes	Yes		No	Yes	Yes	No	No	Yes	Yes		Yes
	Right Turn Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Channel	No Right Turn	No Channel		No Right Turn	No Channel		No Channel	No Channel	No Channel	No Channel	No Channel	No Right Turn	No Channel		No Channel
	Corner Radius	3-5m	3-5m	3-5m	3-5m	3-5m	3-5m	3-5m	3-5m	10-15m	No Right Turn	10-15m		No Right Turn	3-5m		3-5m	5-10m	5-10m	5-10m	5-10m	No Right Turn	3-5m		5-10m
	Crosswalk Type	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Std transverse markings	Std transverse markings	Std transverse markings		Zebra stripe hi-vis markings	Zebra stripe hi-vis markings		Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings	Zebra stripe hi-vis markings		Zebra stripe hi-vis markings
	PETSI Score	**58**	**58**	**75**	**90**	**60**	**71**	**90**	**90**	**47**	**73**	**70**		**76**	**68**		**90**	**59**	**62**	**89**	**89**	**108**	**100**		**94**
	Ped. Exposure to Traffic LoS	**D**	**D**	**B**	**A**	**C**	**C**	**A**	**A**	**D**	**C**	**C**	-	**B**	**C**	-	**A**	**D**	**C**	**B**	**B**	**A**	**A**	-	**A**
	Cycle Length	75	75	75	75	75	75	75	75	75	75	75		90	90		90	90	90	90	90	80	80		80
	Effective Walk Time	11	11	33	33	7	7	37	37	10	10	19		10	10		52	12	12	24	24	18	18		35
	Average Pedestrian Delay	**27**	**27**	**12**	**12**	**31**	**31**	**10**	**10**	**28**	**28**	**21**		**36**	**36**		**8**	**34**	**34**	**24**	**24**	**24**	**24**		**13**
	Pedestrian Delay LoS	**C**	**C**	**B**	**B**	**D**	**D**	**B**	**B**	**C**	**C**	**C**	-	**D**	**D**	-	**A**	**D**	**D**	**C**	**C**	**C**	**C**	-	**B**
	Level of Service	**D**	**D**	**B**	**B**	**D**	**D**	**B**	**B**	**D**	**C**	**C**	-	**D**	**D**	-	**A**	**D**	**D**	**C**	**C**	**C**	**C**	-	**B**
		D				**D**				**D**				**D**				**D**				**C**			
Approach From		NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST	NORTH	SOUTH	EAST	WEST
Bicycle	Bicycle Lane Arrangement on Approach	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic		Mixed Traffic	Mixed Traffic		Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Curb Bike Lane, Cycletrack or MUP		Curb Bike Lane, Cycletrack or MUP
	IF Dedicated Right Turn Lane, THEN Right Turn Configuration, ELSE <blank>											≤ 50 m											Not Applicable		Not Applicable
	Dedicated Right Turning Speed	>25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h		>25 km/h	>25 km/h		>25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h	>25 km/h	Not Applicable		
	Cyclist Through Movement											E	-			-							**Not Applicable**	-	**Not Applicable**
	Separated or Mixed Traffic	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	-	**Mixed Traffic**	**Mixed Traffic**	-	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Mixed Traffic**	**Separated**	-	**Separated**
	Left Turn Approach	One lane crossed	One lane crossed	No lane crossed	No lane crossed	No lane crossed	One lane crossed	No lane crossed	No lane crossed	≥ 2 lanes crossed		One lane crossed		One lane crossed	One lane crossed		No lane crossed	One lane crossed	One lane crossed	No lane crossed	No lane crossed	No lane crossed	No lane crossed		No lane crossed
	Operating Speed	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	≤ 40 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	≤ 40 km/h	≤ 40 km/h	> 40 to ≤ 50 km/h		≤ 40 km/h		> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h		≤ 40 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h	≤ 40 km/h	≤ 40 km/h	> 40 to ≤ 50 km/h	> 40 to ≤ 50 km/h		> 40 to ≤ 50 km/h
	Left Turning Cyclist	**D**	**D**	**B**	**B**	**B**	**D**	**B**	**B**	**E**	-	**B**	-	**D**	**D**	-	**B**	**D**	**D**	**B**	**B**	**B**	**B**	-	**B**
	Level of Service	**D**	**D**	**B**	**B**	**B**	**D**	**B**	**B**	**E**	-	**E**	-	**D**	**D**	-	**B**	**D**	**D**	**B**	**B**	**B**	**B**	-	**B**
		D				**D**				**E**				**D**				**D**				**B**			
Transit	Average Signal Delay	≤ 10 sec	≤ 10 sec	≤ 30 sec	≤ 40 sec	≤ 10 sec	≤ 10 sec		≤ 40 sec	≤ 10 sec	≤ 10 sec	≤ 30 sec		≤ 10 sec	≤ 10 sec		≤ 40 sec	≤ 30 sec	≤ 10 sec	> 40 sec	> 40 sec				
	Level of Service	**B**	**B**	**D**	**E**	**B**	**B**	-	**E**	**B**	**B**	**D**	-	**B**	**B**	-	**E**	**D**	**B**	**F**	**F**	-	-	-	-
		E				**E**				**D**				**E**				**F**				-			
Truck	Effective Corner Radius	< 10 m	< 10 m	< 10 m	< 10 m	< 10 m	< 10 m		< 10 m		10 - 15 m	10 - 15 m		< 10 m			< 10 m	< 10 m	< 10 m	< 10 m	< 10 m				
	Number of Receiving Lanes on Departure from Intersection	1	1	≥ 2	1	1	1		1		≥ 2	≥ 2		1			≥ 2	1	1	≥ 2	≥ 2				
	Level of Service	**F**	**F**	**D**	**F**	**F**	**F**	-	**F**	-	**B**	**B**	-	**F**	-	-	**D**	**F**	**F**	**D**	**D**	-	-	-	-
		F				**F**				**B**				**F**				**F**				-			
Auto	Volume to Capacity Ratio	0.71 - 0.80				0.61 - 0.70				0.61 - 0.70				0.0 - 0.60				0.91 - 1.00				0.71 - 0.80			
	Level of Service	**C**				**B**				**B**				**A**				**E**				**C**			

Multi-Modal Level of Service - Segments Form

Consultant	**Momentum**	**Project**	**Lansdowne 2.0 - EC**
Scenario	**Existing / 2033 Total Future**	**Date**	**January 21, 2025**
Segment	**Segment 1 - Bank Street**		

SEGMENTS		**Bank St**	Segment 1A (SB) Holmwood - Wilton	Segment 1A (NB) Holmwood - Wilton	Segment 1B (NB) Wilton - Aylmer	Segment 1B (SB) Wilton - Aylmer
Pedestrian	Sidewalk Width Boulevard Width	**C**	≥ 2 m > 2 m	≥ 2 m > 2 m	≥ 2 m 0.5 - 2 m	≥ 2 m 0.5 - 2 m
	Avg Daily Curb Lane Traffic Volume		> 3000	> 3000	> 3000	> 3000
	Operating Speed On-Street Parking		> 30 to 50 km/h no	> 30 to 50 km/h no	> 30 to 50 km/h no	> 30 to 50 km/h no
	Exposure to Traffic PLoS		**B**	**B**	**C**	**C**
	Level of Service		**B**	**B**	**C**	**C**
Bicycle	Type of Cycling Facility	**E**	Mixed Traffic	Curbside Bike Lane	Physically Separated	Physically Separated
	Number of Travel Lanes		4-5 lanes total	2 ea. dir. (no median)		
	Operating Speed		>40 to <50 km/h	≤ 50 km/h		
	# of Lanes & Operating Speed LoS		**E**	**B**	-	-
	Bike Lane (+ Parking Lane) Width			≥ 1.2 to <1.5 m		
	Bike Lane Width LoS		-	**C**	-	-
	Bike Lane Blockages			Rare		
	Blockage LoS		-	**A**	-	-
	Level of Service		**E**	**C**	**A**	**A**
Transit	Facility Type	**F**	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic
	Friction or Ratio Transit:Posted Speed		Vt/Vp ≤ 0.4	Vt/Vp ≤ 0.4	Vt/Vp ≤ 0.6	Vt/Vp ≥ 0.8
	Level of Service		**F**	**F**	**E**	**D**
Truck	Truck Lane Width	**C**	≤ 3.5 m	≤ 3.3 m	≤ 3.5 m	≤ 3.5 m
	Travel Lanes per Direction		> 1	> 1	1	> 1
	Level of Service		**A**	**C**	**C**	**A**

Multi-Modal Level of Service - Segments Form

Consultant	Momentum
Scenario	Existing / 2033 Total Future
Segment	Segment 2: Holmwood Ave

Project	Lansdowne 2.0 - EC
Date	January 21, 2025

SEGMENTS		Holmwood Ave	Segment 2 Bank - O'Connor (WB)	Segment 2 Bank - O'Connor (EB)
Pedestrian	Sidewalk Width Boulevard Width	B	1.8 m < 0.5 m	1.8 m < 0.5 m
	Avg Daily Curb Lane Traffic Volume		≤ 3000	≤ 3000
	Operating Speed On-Street Parking		> 30 to 50 km/h no	> 30 to 50 km/h yes
	Exposure to Traffic PLoS		**B**	**B**
	Level of Service		**B**	**B**
Bicycle	Type of Cycling Facility	B	Curbside Bike Lane	Mixed Traffic
	Number of Travel Lanes			≤ 2 (no centreline)
	Operating Speed		≤ 50 km/h	>40 to <50 km/h
	# of Lanes & Operating Speed LoS		**-**	**B**
	Bike Lane (+ Parking Lane) Width		≥ 1.2 to <1.5 m	
	Bike Lane Width LoS		**C**	-
	Bike Lane Blockages		Rare	
	Blockage LoS		**A**	-
	Level of Service		**-**	**B**
Transit	Facility Type	-		
	Friction or Ratio Transit:Posted Speed			
	Level of Service		**-**	**-**
Truck	Truck Lane Width	-		
	Travel Lanes per Direction			
	Level of Service		**-**	**-**

Multi-Modal Level of Service - Segments Form

Consultant	**Momentum**	**Project**	**Lansdowne 2.0 - EC**
Scenario	**Existing / 2033 Total Future**	**Date**	**January 21, 2025**
Segment	**Queen Elizabeth Driveway (QED)**		

SEGMENTS		QED	Section 3 South of Princess Patricia Way (SB)	Section 3 South of Princess Patricia Way (NB)
Pedestrian	Sidewalk Width Boulevard Width	B	≥ 2 m > 2 m	≥ 2 m > 2 m
	Avg Daily Curb Lane Traffic Volume		> 3000	> 3000
	Operating Speed On-Street Parking		> 30 to 50 km/h no	> 30 to 50 km/h no
	Exposure to Traffic PLoS		**B**	**B**
	Level of Service		**B**	**B**
Bicycle	Type of Cycling Facility	A	Physically Separated	Physically Separated
	Number of Travel Lanes			
	Operating Speed			
	# of Lanes & Operating Speed LoS		-	-
	Bike Lane (+ Parking Lane) Width			
	Bike Lane Width LoS		-	-
	Bike Lane Blockages			
	Blockage LoS		-	-
	Level of Service		**A**	**A**
Transit	Facility Type	-		
	Friction or Ratio Transit:Posted Speed			
	Level of Service		-	-
Truck	Truck Lane Width	-		
	Travel Lanes per Direction			
	Level of Service		-	-
Auto	**Level of Service**	**Not Applicable**		

APPENDIX F – CONSTRUCTION ACCESS

APPENDIX F – LANSDOWNE 2.0 CONSTRUCTION ACCESS

Project	Lansdowne 2.0 – North Side Stands
Report Title	Appendix D – Lansdowne 2.0 Construction Haul Route Review
Date	20/12/2024
Prepared by	Momentum Transport Consultancy
Prepared for	City of Ottawa

Context

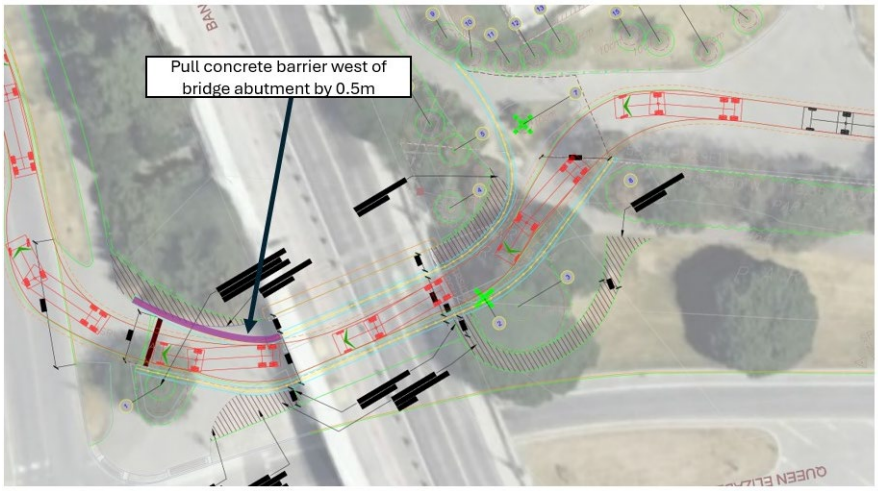
1.1 This Appendix describes construction tracking along Bank Street, which has been studied in detail using Swept Path Analysis.

1.2 The aerial image provided, as well as Google Maps, shows a Bank Street layout under construction and does not have the current layout with cycle routes. See below:

1.3 An aerial image and 2022 design layout for Bank Street has been provided to complete the tracking of the intersection. See below:

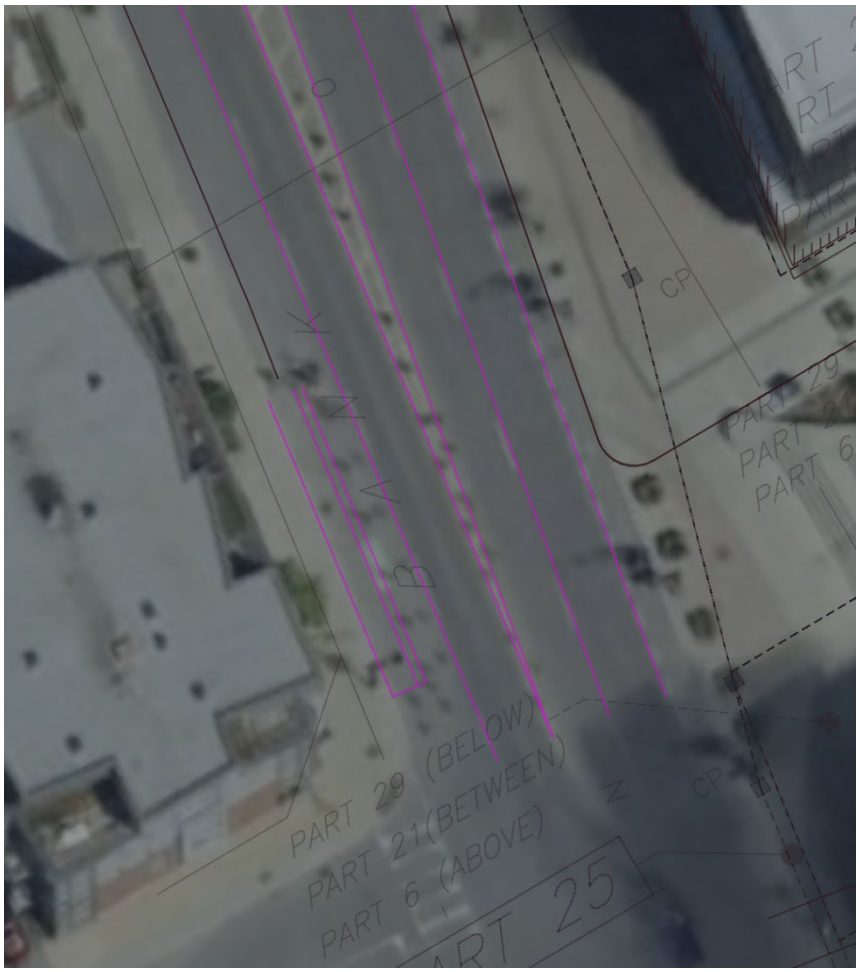
1.4 Therefore, Momentum have made some sketch offsets of the current arrangement based on the below assumptions to try match the street view. For more accuracy, an updated aerial, OS base map or topographical survey would be required.

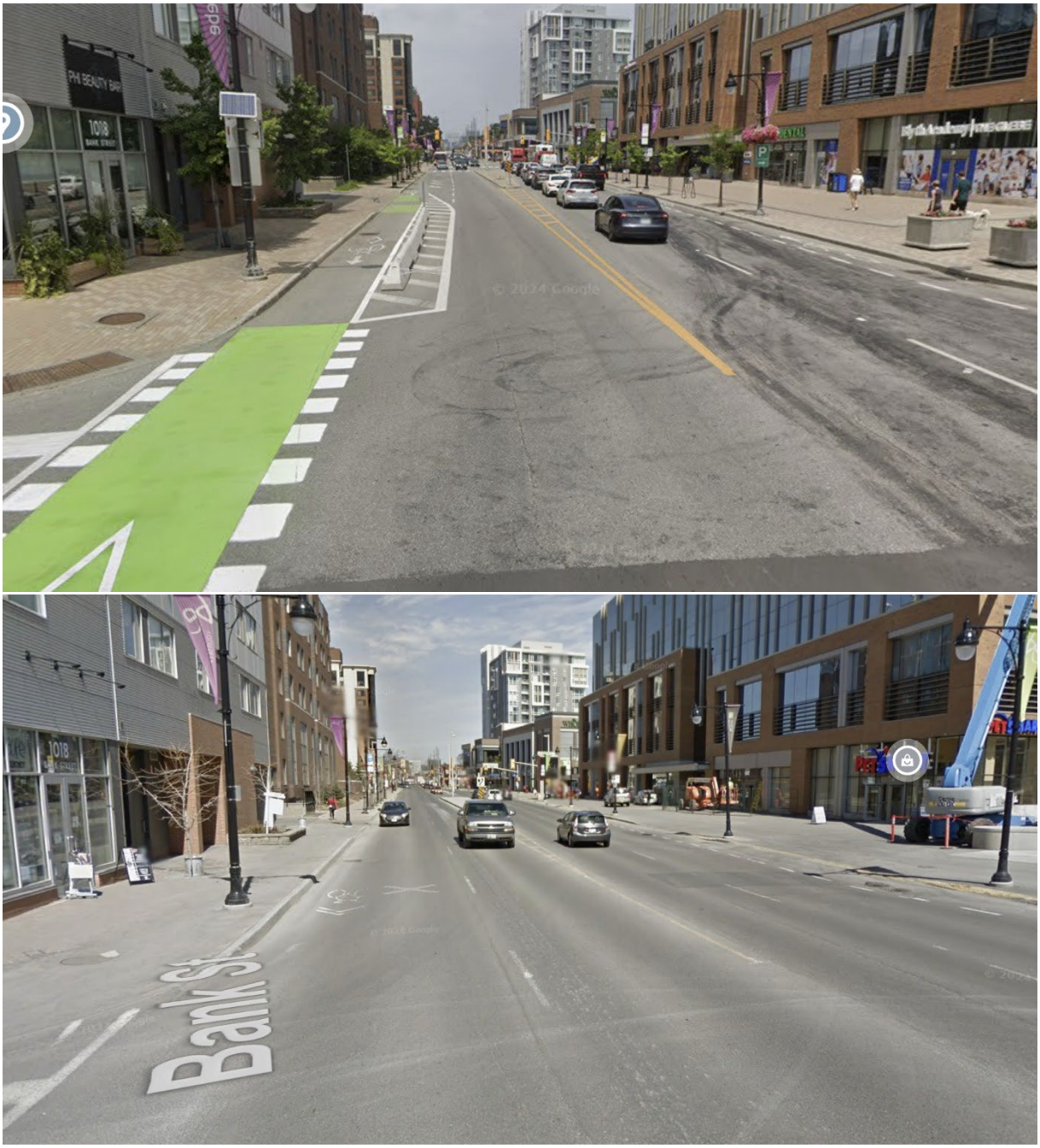
1.5 The temporary haul route is shown below.



1.6 Bank Street north of intersection:

- 2x 3.25m northbound lanes remain
- Only left-hand side 3.25m southbound lane remains
- Right-hand side lane turned into 1.5m cycle lane and a 0.5m offset for the physical barrier that stops just after the traffic light





1.7 Bank Street south of intersection:

- Use existing curbs and offset 1.5m cycle lane from each side
- Use remaining carriageway to make 3 lanes (original arrangement had 4 lanes through the bridge)
- Step-up cycle path starts just after the grass radius to the west

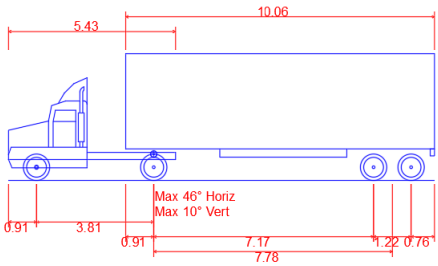
PART 25

© 2024 Google

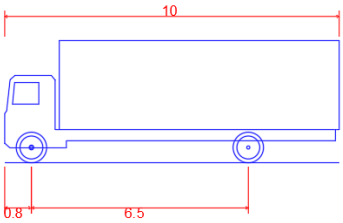
MAXIMUM
40
km/h
20

Swept Path Analysis Summary

1.8 Completed for previously tracked WB-12 which can use the haul road and then largest rigid of the previously tracked rigids (10m MSU).

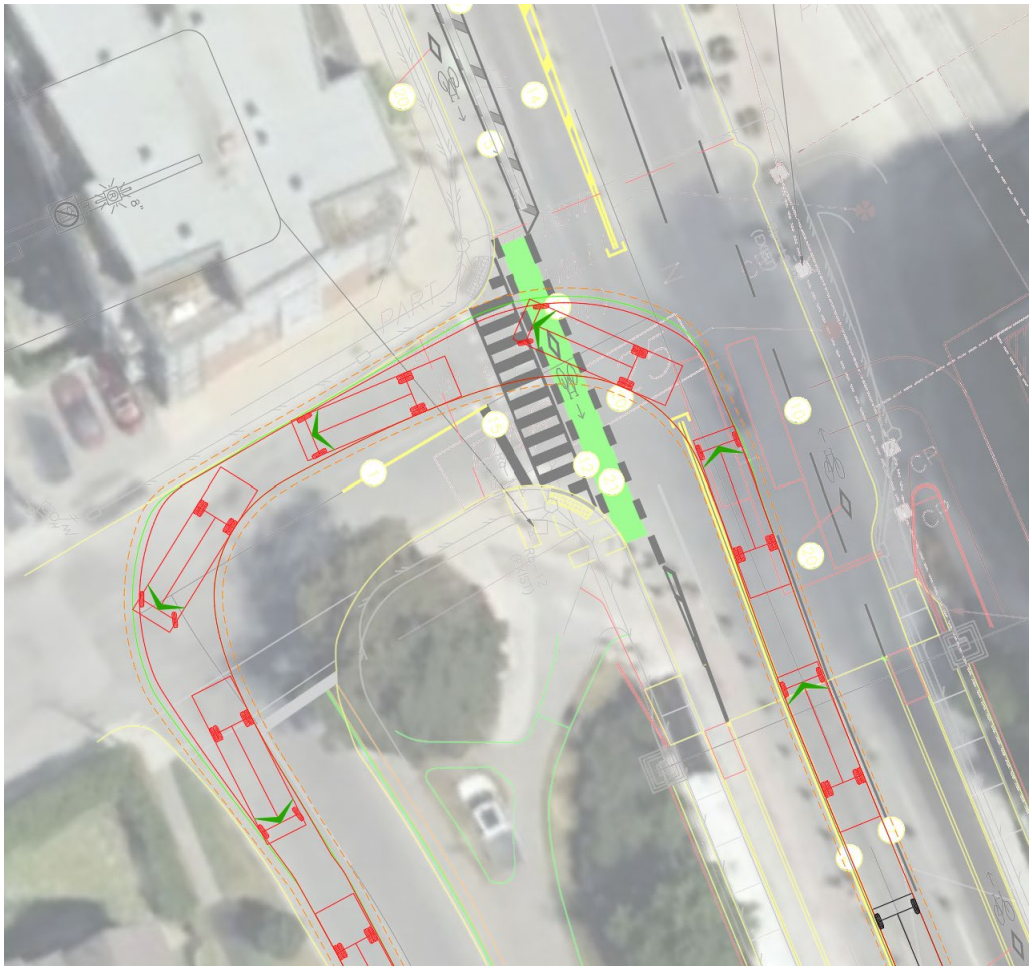


WB-12 - Intermediate Semi-Trailer	
Overall Length	13.870m
Overall Width	2.440m
Overall Body Height	4.110m
Min Body Ground Clearance	0.407m
Track Width	2.440m
Lock to lock time	4.00s
Max Steering Angle (Virtual)	20.30°



MSU - Medium Single Unit Truck	
Overall Length	10.000m
Overall Width	2.600m
Overall Body Height	3.650m
Min Body Ground Clearance	0.445m
Track Width	2.600m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	11.100m

MSU INGRESS TO SITE



- MSU southbound with right turn (above left) can make manoeuvre without overrunning opposite lane, stop line, or curb radius. No traffic flagger is required.

- MSU northbound with left turn (above right) can make manoeuvre without overrunning opposite lane, stop line, or curb radius. No traffic flagger is required.

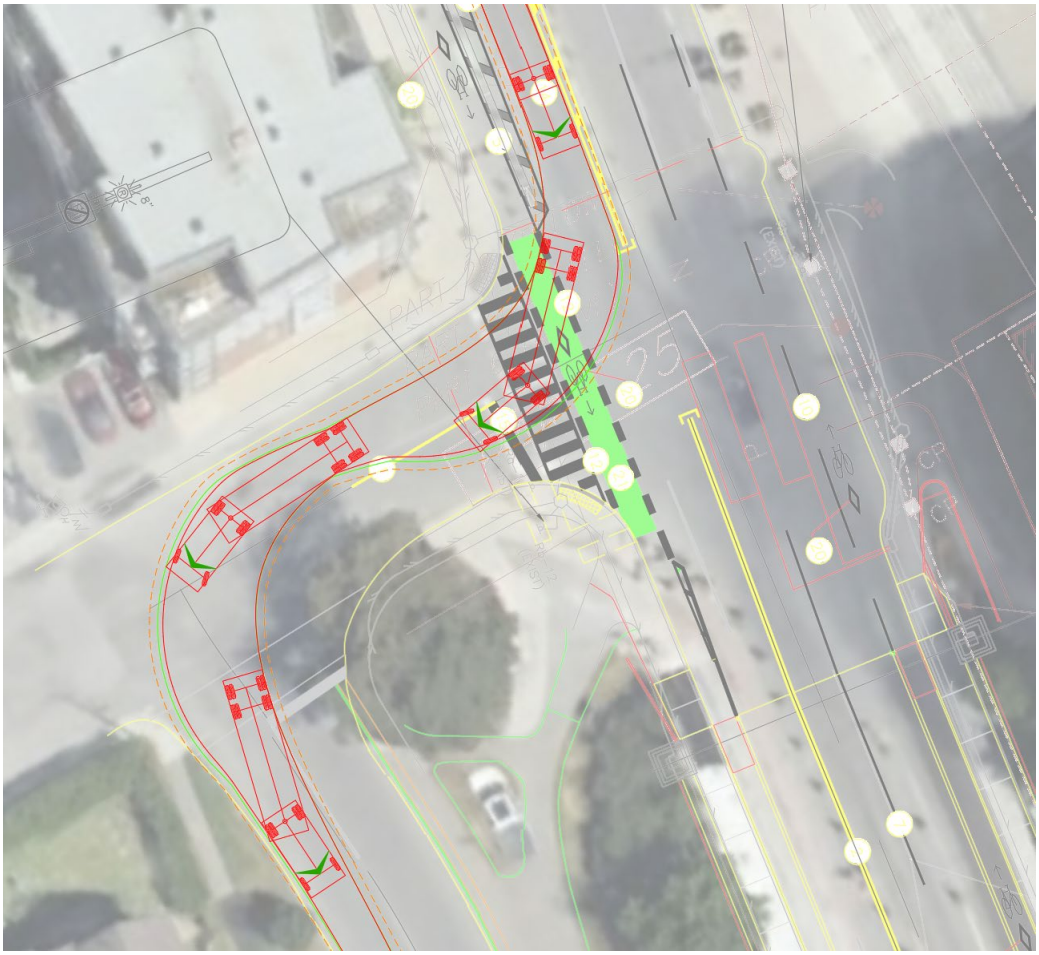
MSU EGRESS FROM SITE

1.9 MSU southbound with right turn (above left) can make manoeuvre without overrunning curb radius. Will required looking both ways at both stop lines for oncoming traffic due to slight lane overrun into opposing traffic when making turn.

1.10 MSU northbound with left turn (above middle) can make manoeuvre without overrunning curb radius.

1.11 MSU can safely stop within the lane at second stop line before making the turn into Bank Street (above right in white vehicle outline)

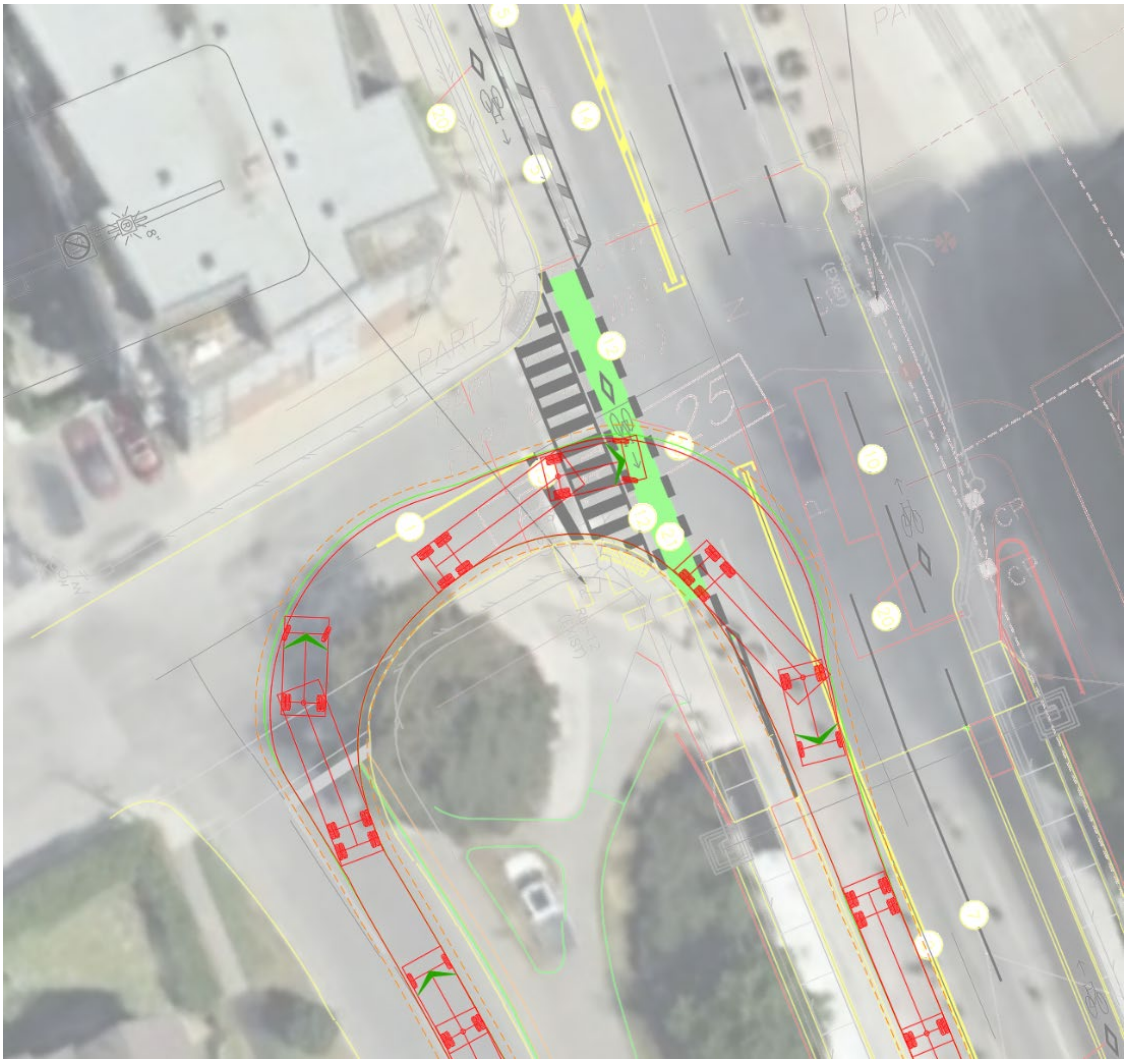
WB-12 INGRESS TO SITE



1.12 WB-12 southbound with right turn (above left) can make manoeuvre without overrunning curb radius. Traffic flaggers required to assist manoeuvre as vehicle overruns opposite lane and stop line at both junctions.

1.13 WB-12 northbound with left turn (above right) can make manoeuvre without overrunning curb radius. Traffic flaggers required to assist manoeuvre as vehicle overruns opposite lane and stop line at both junctions.

WB-12 EGRESS FROM SITE



1.14 WB-12 southbound with right turn (above left) can make manoeuvre without overrunning curb radius. Traffic flaggers required to assist manoeuvre as vehicle overruns opposite lane at both junctions when turning.

1.15 WB-12 northbound with left turn (above middle) can make manoeuvre without overrunning curb radius. Traffic flaggers required to assist manoeuvre as vehicle overruns opposite lane at both junctions when turning.

1.16 WB-12 cannot safely stop within the lane at second stop line before making the tun into Bank Street (above right in white vehicle outline) and requires both lanes. Traffic Flaggers required to assist with management of manoeuvres for this vehicle type.

Project & Document Details

Project Name	Lansdowne 2.0 Event Centre (Phase 1)
Project Number	C000241
Document Title	Appendix D – Bank Street Tracking

Document History

Issue	Status	Reason for Issue	Issued to
1.0		Accompany TIA report	City of Ottawa

Issue Control

Issue	Date	Author	Contributors	Authorisation	
				Name	Signature
1.0	20/12/24	JH	AA, NBO	HM	

APPENDIX G – TDM SUMMARY & CHECK LISTS

LANSDOWNE 2.0
TRANSPORTATION DEMAND MANAGEMENT MEASURES OVERVIEW

Project	Lansdowne 2.0 – Phase 1 (Event Centre)
Report Title	Transportation Demand Management Measures Overview
Date	21/01/2025
Prepared by	Momentum
Prepared for	City of Ottawa / Ottawa Sports and Entertainment Group (OSEG)

Introduction

The Transportation Demand Management (TDM) program implemented in 2014 to support special events at Lansdowne Park and TD Place has been largely effective in diverting automobile trips from traveling directly to Lansdowne for special events.

A key hallmark of the TDM program and a large contributor to its success for the Lansdowne Revitalization project is the provision of free transit service to all ticketed events at no cost to event goers. Maintaining and enhancing this provision will be critical in maintaining the success of the program as part of the Lansdowne 2.0 redevelopment project.

The initial TDM plan for the Lansdowne Revitalization identified varying levels of enhanced transit and shuttle services needed to support following event sizes:

- 7,000 – 10,000 attendees, representative of average and sold-out arena events.
- 13,000 attendees, representative of smaller stadium events with attendance levels ranging between 10,000 - 15,000.
- 18,000 - 25,000 attendees, representative of average and sold-out stadium events including CFL Ottawa Redblacks football games.
- 40,000 attendees, representative of jewel ‘mega events’. These events are infrequent and require temporary expanded stadium seating capacity, and/or the concurrent use of venues at Lansdowne.

The above attendance level scenarios were developed based on the capacities of the Stadium at TD Place (assumed to be 25,000) and the Arena at TD Place (9,800).

As part of the Lansdowne 2.0 project, the existing 9,800 seat indoor TD Place Arena will be replaced with a new standalone 5,500 seat (6,500 spectator) multi-purpose event centre that will be the new home to the OHL’s Ottawa 67’s, the CEBL’s Ottawa BlackJacks, PWHL Ottawa hockey, and other indoor ticketed events. This change will effectively cap indoor arena events to 6,500 attendees, down from the previous 9,800 maximum capacity level that was previously identified for sold-out arena events.

The current spectator capacity for the Stadium at TD Place is 24,000. Under Lansdowne 2.0 project, the existing north stadium stands will be reconstructed with a seated capacity of 11,200 spectators (12,100 total spectators), representing a decrease from the current capacity of 14,028 spectators for the existing north stadium stands. This represents a total capacity of 22,000 spectators for the new stadium (2,000 less seats than what is provided today).

Based on the Lansdowne 2.0 Transportation Demand Management Strategy Report (June 30, 2023 – Stantec) event, varying levels of event sizes have been refined to reflect the new event centre and stadium capacities. Consistent with the original TDM Plan, events at Lansdowne are categorized as either Minor Events or Major Events.

Minor Events constitute events and programming at Lansdowne with total attendance levels of 10,000 or less, typically representative of indoor events or those that do not require the provision of substantial Park & Shuttle service (i.e. OC Transpo 450-Series service). Major Events are those with attendance levels of 10,000 or more and are typically outdoor stadium events that require enhanced transit service and the provision of Park & Shuttle service.

Annual Modal Share Analysis

Modal share surveys for major and minor events are conducted by OSEG on an annual basis to gauge the effectiveness of the TDM program. This annual assessment helps to track progress and identify any adjustments that might be required to continue to meet TDM targets.

On-line surveys are sent shortly after each event held at TD Place to obtain feedback on transportation services and travel modes used to travel to events. The on-line surveys provide a better understanding of travel behaviours for modes that are not easily quantified through passive on-site counts, these include drop-offs near the venue, use of taxis, and ridesharing services such as Uber and Lyft.

The tables below summarize average modal share averages achieved in 2033 for events held at Lansdowne.

Table 1 – 2023 REDBLACKS Average Modal Share Summary

Travel Model	Major Events Modal Share Targets	2023 Ottawa REDBLACKS Average Modal Share		
Transit & Shuttle	50-55%	47.10%		
On-Site Parking	3-6%	3.80%		
Cycling	1-3%	1.50%		
Walking	8-10%	8.20%		
On-Street Parking	26%	29.60%		
Other Modes	5-10%	9.70%	Drop-Off Near Venue	3.00%
			Ridesharing	2.70%
			3rd Party Group Bus/Other	1.30%
			Taxi	0.30%
			Other	2.50%
Total	**100%**	**100%**		

Table 2 – 2023 Ottawa 67's Average Modal Share Summary

Travel Model	Minor Events Modal Share Targets	2023 Ottawa 67's Average Modal Share		
Transit	10-20%	24.50%	Transit	12.00%
			Shuttle Service (Carleton)	12.50%
Active Modes	5-10%	8.90%	Walking	8.00%
(Walking and Cycling)			Cycling	0.90%
Auto Modes	60-80%	58.40%	On-Street Parking	23.90%
(On-Site/Street Parking)			On-Site Parking	34.50%
Other Modes	5-20%	8.10%	Drop-Off Near Venue	3.90%
			Ridesharing	2.30%
			3rd Party Group Bus	0.10%
			Taxi	0.50%
			Other	1.30%
Total	**100%**	**100%**		

Table 3 – 2023 Minor Events Average Modal Share Summary

Travel Model	Minor Events Modal Share Targets	2023 TD Place Events Average Modal Share		
Transit	10-20%	13.60%	Transit	13.60%
			Shuttle Service	NA
Active Modes	5-10%	9.30%	Walking	8.60%
(Walking and Cycling)			Cycling	0.70%
Auto Modes	60-80%	61.10%	On-Street Parking	26.30%
(On-Site/Street Parking)			On-Site Parking	34.80%
Other Modes	5-20%	15.90%	Drop-Off Near Venue	5.70%
			Ridesharing	6.90%
			3rd Party Group Bus	0.30%
			Taxi	1.90%
			Other	1.20%
Total	**100%**	**100%**		

Table 4 – 2023 Tenant Team (BlackJacks / Athletico) Average Modal Share Summary

Travel Model	Minor Events Modal Share Targets	2022 Blackjacks Average Modal		
Transit	10-20%	8.20%	Transit	8.20%
			Shuttle Service	0.00%
Active Modes	5-10%	17.20%	Walking	13.50%
(Walking and Cycling)			Cycling	3.70%
Auto Modes	60-80%	66.20%	On-Street Parking	32.50%
(On-Site/Street Parking)			On-Site Parking	33.70%
Other Modes	5-20%	8.40%	Drop-Off Near Venue	4.20%
			Ridesharing	2.40%
			3rd Party Group Bus	0.00%
			Taxi	0.90%
			Other	0.80%
Total	**100%**	**100%**		

Based on 2023 modal share data, the TDM modal shares for events held at Lansdowne continue to be within set targets with a high adoption of transit, shuttle, and active modes as the primary travel options to travel to Lansdowne for events.

For major events (attendance levels of 10,000 or more), the transit and shuttle modal share continues to show improvement and signs of recovery since the COVID-19 pandemic. Transit and shuttle modal shares increased from 42.2% in 2022 to 47.1% in 2023. It is anticipated modal shares will continue to improve over time as transit ridership levels continue to recover. Modal shares for on-site parking (3.8%), cycling (1.5%), and walking (8.2%) continue to fall within modal share targets for major events.

For minor events (attendance levels that are less than 10,000), transit modal shares continue to meet and exceed set targets for transit and actives modes. For Ottawa 67's games, the transit modal shares in 2023 was 24.5%, exceeding the 10-20% target. This success is attributed to excellent communication of travel options to ticket holders, and the provision of shuttle service from Carleton University for Ottawa 67's games held at Lansdowne.

Modal shares for other minor events, such as concerts and shows, continue to meet TDM targets for transit (13.6%) and active modes (9.3%).

Modal shares for Ottawa BlackJacks and Ottawa Athletico matches for 2023 were also met. While the transit mode share average was 8.2%, slightly below the 10% target, the walking and cycling mode share was 17.2%, far exceeding the 5-10% target for active modes. It is worth noting that the auto mode share for Ottawa BlackJacks and Ottawa Athletico matches was also within the set targets with 66.2% in 2023.

Lansdowne 2.0 Attendance Levels

The Lansdowne 2.0 concept was adjusted since the submission of the Lansdowne 2.0 Transportation Demand Management Strategy Report in 2023. This included the reduction of the proposed density from three residential towers with 1,200 units to two towers with 700 units. Other changes include the removal of a proposed 1,500 seat music hall from the podium level retail that is proposed to be attached to the new north stadium stands.

Attendance level thresholds were adjusted to reflect the new concept plan:

Minor Events

- 3,000 attendees or less, representative of smaller indoor events at the new Event Centre, and other public events held at Lansdowne.
- 3,000 - 6,500 attendees, representative of average and maximum sold-out indoor events at the new Event Centre.
- Between 6,500 and 10,000 attendees, representative of concurrent sold-out indoor events at the new Event Centre with other events occurring at Lansdowne such as the Ottawa's Farmer Market, BluesFest, or other outdoor festivals held on site.

Major Events

- 13,000 attendees, representative of events between 10,000 and 15,000 attendees including smaller stadium events.
- 18,000 - 22,000 attendees, representative of average and sold-out stadium events.
- 29,000 attendees, representative of concurrently held sold-out indoor events at the new Event Centre, and a sold-out event at the Stadium. It is noted that while the overlapping of two sold-out events is unlikely, this scenario is accounted for as
- 40,000 representing a large 'Mega Event' with expanded Stadium seating capacity, or concurrent large events.

Based on information received from the Ottawa Sports and Entertainment Group, smaller events with attendance levels of 5,000 attendees or less represent the majority of ticketed events at Lansdowne. For 2024, out of total 161 events expected at Lansdowne, approximately 128 events (79%) are planned to have attendance levels under 5,000 attendees.

Lansdowne 2.0 Modal Share Targets

The Lansdowne 2.0 Transportation Demand Management Strategy (Stantec – July 2023), provided revised modal share targets for Major Events and Minor Events for Lansdowne 2.0.

Table 1 summarized the modal share targets for Lansdowne 2.0, including those for the new Event Centre (Minor Events).

Table 2 documents the corresponding person trips forecasted for events at Lansdowne 2.0 under various event sizes. Consistent with the initial TDM plan, the auto mode which accounts for both on-site and on-street parking, is assumed to be maximized at 8,225 person trips based on a limited on-street parking supply of 2,175 spaces within the vicinity of Lansdowne, and 600 on-site parking spaces.

Table 5: Lansdowne 2.0 Modal Share Targets for Varying Attendance Levels

Attendance Level	Event Centre	Event Centre + LP Events*	Small Stadium Event	Average Stadium Event	Sold-Out Stadium Event	Concurrent Sold-Out Stadium + Event Centre	Mega Event: Expanded Stadium Seating + Event Centre	
	3,000	**6,500**	**10,000**	**13,000**	**18,000**	**22,000**	**29,000**	**40,000**
Transit / Park & Shuttle	10%	10%	10%	52%	52%	52%	54%	59%
Walking & Cycling	10%	10%	10%	11%	11%	11%	11%	13%
Drive & Park	75%	75%	75%	32%	32%	32%	28%	21%
Other**	5%	5%	5%	5%	5%	5%	7%	7%

Table 6: Lansdowne 2.0 Person Trips Per Mode for Varying Attendance Levels

Attendance Level	Event Centre	Event Centre + LP Events*	Small Stadium Event	Average Stadium Event	Sold-Out Stadium Event	Concurrent Sold-Out Stadium + Event Centre	Mega Event: Expanded Stadium Seating + Event Centre	
	3,000	**6,500**	**10,000**	**13,000**	**18,000**	**22,000**	**29,000**	**40,000**
Transit / Park & Shuttle	300	650	1,000	6,760	9,360	11,440	15,555	23,775
Walking & Cycling	300	650	1,000	1,430	1,980	2,420	3,190	5,200
Drive & Park	2,250	4,875	7,500	4,160	5,760	7,040	8,225	8,225
Other**	150	325	500	650	900	1,100	2,030	2,800

* LP Events – Lansdowne Park Events and Festivals

** Other – represents other modes such as RideShare (Uber/Lyft), Taxis, Drop-offs, Private Shuttle buses

Special Events Transportation Services

MINOR EVENTS (LESS THAN 15,000 ATTENDEES)

Free Transit Service:

The basic elements of the TDM Plan to accommodate Minor Events at Lansdowne do not change as part of the Lansdowne 2.0 project. A key hallmark of the service delivery is the continued provision of free transit to all ticketed events at Lansdowne, irrespective of event size, starting two hours prior to the start of events, and up to two hours after the end of events.

Depending on the anticipated attendance levels, enhancements on OC Transpo Routes 6 and 7 through additional trips are arranged by OC Transpo as needed to ensure adequate transit capacity is provided.

The cost of additional transit service enhancement is provided at no additional cost to event goers and is borne by OSEG.

Walking and Cycling:

Information promoting walking and cycling as a convenient way to travel to TD Place is featured throughout TD Place communications. Walking and cycling to Lansdowne is promoted through the use of the scenic multi-use pathway along the Rideau Canal and the use of the 285 bike rings provided on-site. Additional information on walking and cycling connections is provided on the City of Ottawa Lansdowne Park website.

On-Site Parking Management:

On-site parking at TD Place is available for use during special events. As on-site parking is limited and shared with other visitors to Lansdowne, event attendees are encouraged to pre-purchase on-site parking to reserve a space and to limit increased drive-up demand. This messaging is provided for minor events held at Lansdowne including concerts, events, Ottawa 67's, Atletico, BlackJacks, and PWHL games.

Alternative Off-Site Parking:

To limit drive-up parking at Lansdowne for minor events, OSEG is currently identifying nearby off-street parking near Lansdowne as an alternative to on-site parking, particularly for use during minor events when Park & Shuttle service is not provided.

Intercepting inbound auto travelers for Minor Events at alternative parking facilities that are typically underutilized on weekday evenings and weekends has the potential to reduce direct auto travel to Lansdowne. Alternative parking information is currently provided on the TD Place website and provides information on nearby lots that are within a 20, 30, and 40-minute walk to Lansdowne. In addition, parking facilities with access to Routes 6 and 7 are identified for convenience to address First / Last Mile connectivity through free transit service on Bank Street for ticket holders.

OSEG is currently exploring options to aggregate the availability of off-site alternative parking, and the ability to pre-purchase or reserve alternative nearby off-street parking, through third party parking service providers.

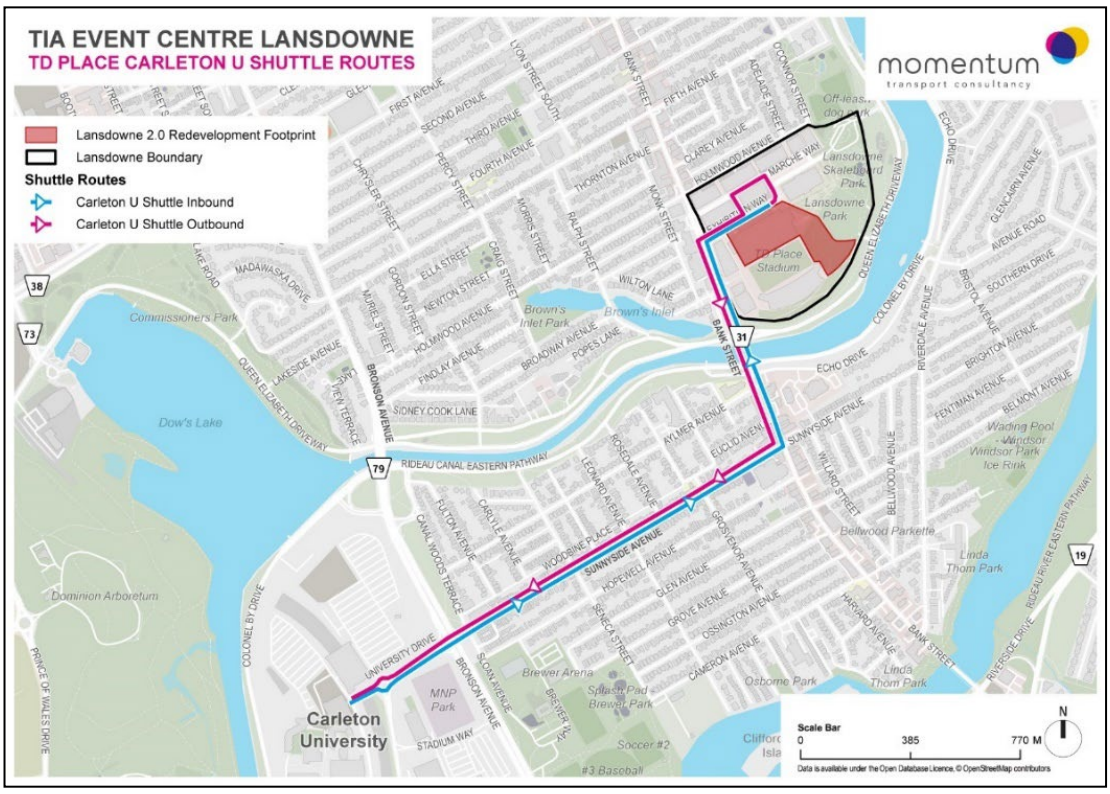
Carleton U Shuttle:

For Ottawa 67's and PHWL Ottawa games, park & shuttle service is provided to ticket holders from Carleton University. Ticket holders can park at Carleton University starting 90 minutes before the start of Ottawa 67's and PHWL Ottawa games with services provided until 60 minutes post-games. The cost of parking and shuttle service is free to ticket holders and is

borne by OSEG. Shuttle bus service is provided from Carleton University's P18 Parkade with service provided to Lansdowne provided through Sunnyside Avenue and Bank Street.

While the Carleton U shuttle is currently used to support Ottawa 67's and PHWL Ottawa events, it can also be used to supplement enhanced transit coverage for concurrent special events at Lansdowne with total on-site attendance levels exceeding the 10,000 threshold but less than 15,000 attendees where further transportation services are required to support major events.

Figure 1: Carleton U Shuttle



MAJOR EVENTS (MORE THAN 15,000 ATTENDEES)

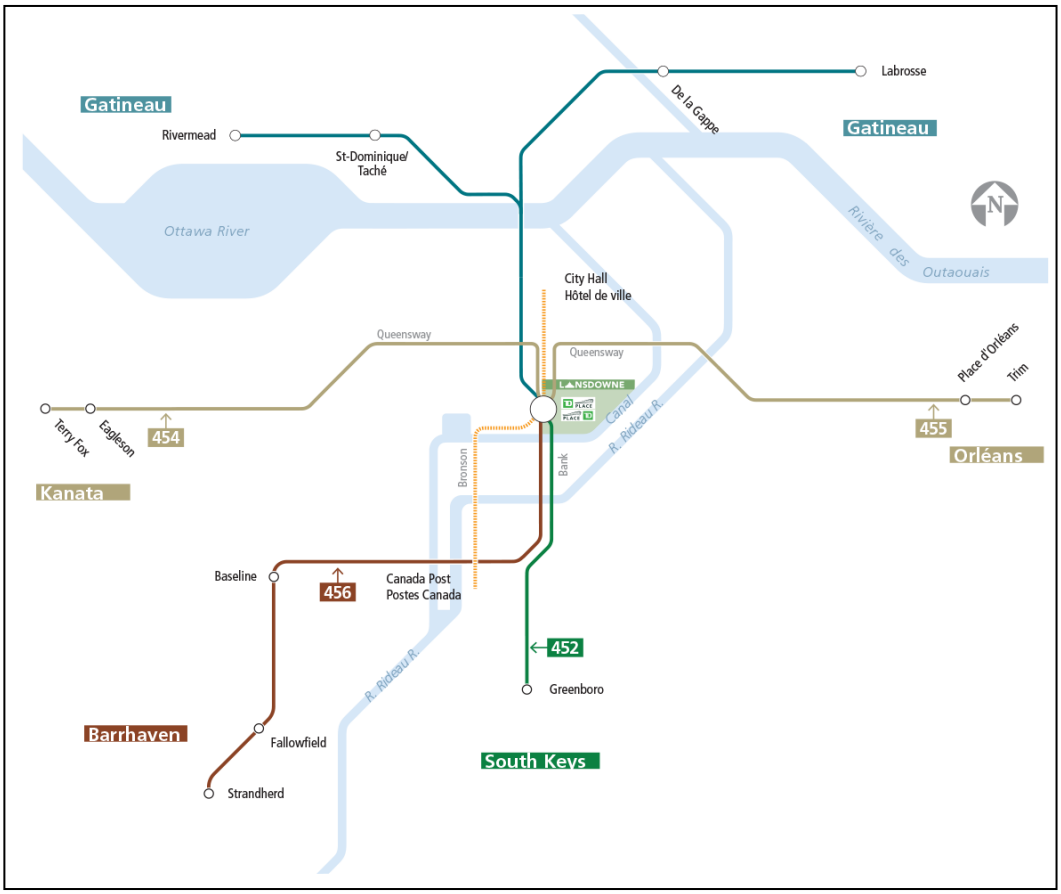
No significant changes are anticipated to the provision of transportation services to support major events with attendance levels of 15,000 or more. Transportation services provided for outdoor stadium events will continue to be provided in their current format.

This includes the provision of free, direct parking and shuttle service from satellite locations that are operated by OC Transpo, the Société de Transport de l'Outaouais (STO), and OSEG.

Enhanced Transit / Park & Shuttle:

For major events with attendance levels between 15,000 – 22,000 (stadium events), enhanced transit service and 450-series shuttles provided by OC Transpo and the STO will continue to provide service on Bank Street.

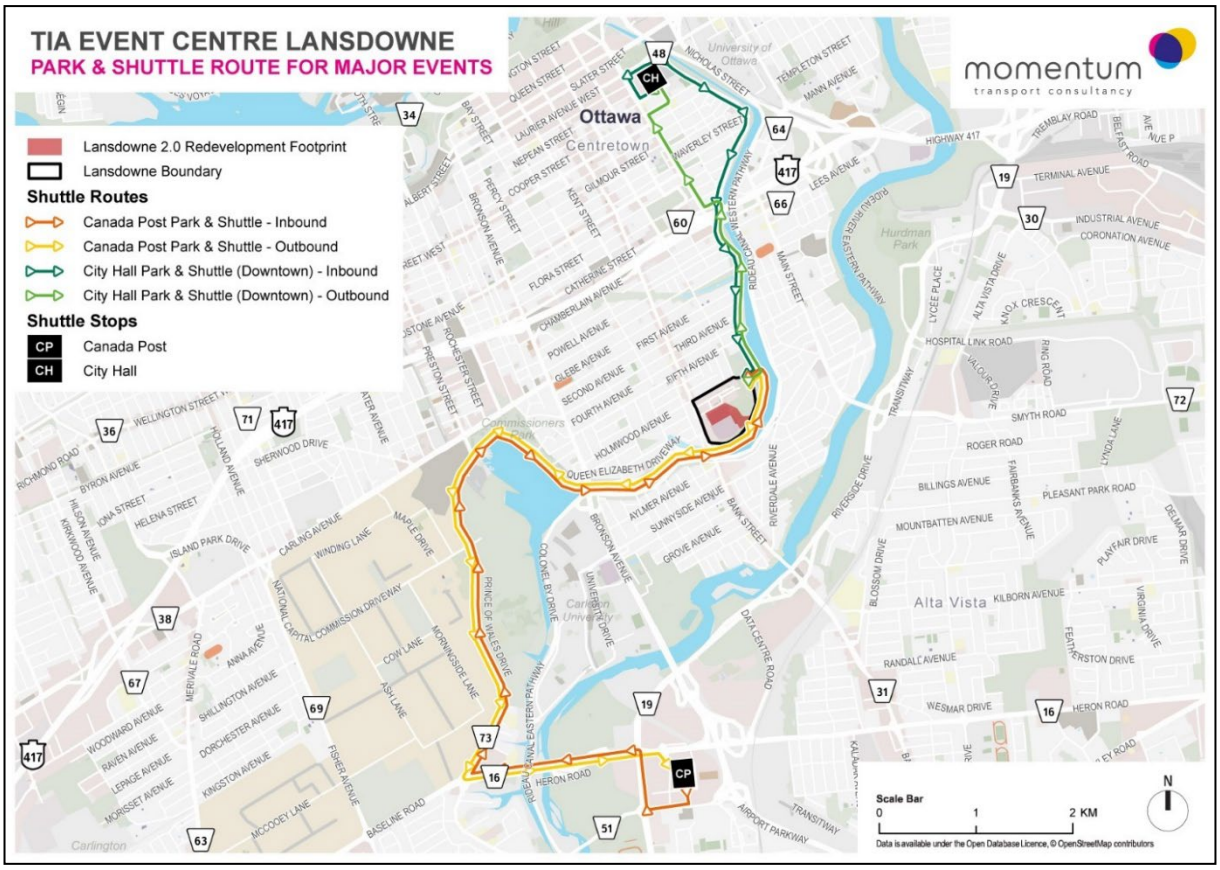
Figure 2: TD Place Park & Shuttle Network Map



Under Lansdowne 2.0, the use of nearby satellite parking and shuttle service from City Hall and Canada Post is expected to continue to be provided by OSEG for major events with attendance levels of 15,000 or more.

TD Place Park & Shuttle service from Canada Post and City Hall provide service to the Shuttle Loop on the east side of Lansdowne and require access on Queen Elizabeth Driveway.

Figure 3: TD Place Park & Shuttle Routes Operated by OSEG for Major Events



Continued cooperation and coordination with key stakeholders including the City of Ottawa and the National Capital Commission (NCC) will be required to successfully deliver Major Events at Lansdowne. QED will continue to play a significant role in supporting multimodal access to Lansdowne. In addition to supporting active mode trip access through the multi-use pathway system, QED plays a critical role in supporting vehicular access to the site during Major Events for both residents and retail patrons. The access is also used as the primary drop-off area for RideShare service providers such as Uber and Lyft, as well as Park & Shuttle services from Canada Post and City Hall.

The timing of closures on QED should be coordinated closely by the NCC, the City of Ottawa, and OSEG for Major Events. While the majority of access to Lansdowne is facilitated on the 450-series service on Bank Street, the QED will primarily accommodate parking garage access during event Ingress and Egress time periods when access on Bank Street is fully restricted to vehicular traffic due to pedestrian demands.

Opportunities to streamline and adjust Park & Shuttle services from Canada Post and City Hall should continue to be explored and changes to services provided should be informed through

consultations with key stakeholders including OC Transpo, City of Ottawa, and the NCC. This includes a period evaluation of the number of satellite parking facilities needed to match service demands.

Walking and Cycling:

Information promoting walking and cycling as a convenient way to travel to TD Place is featured throughout TD Place communications. Walking and cycling to Lansdowne is promoted through the use of the scenic multi-use pathway along the Rideau Canal and the use of the 285 bike rings provided on-site. Additional information on walking and cycling connections is provided on the City of Ottawa Lansdowne Park website.

A total of 76 bicycle racks providing 152 bicycle parking spaces are to be provided as part of the proposed site plan application for the Event Centre (Phase 1). 47 bicycle racks providing 94 spaces are to be provided on the eastern side of the North Side Stands. The bicycle racks would be enclosed by trees and close to NSS surveillance providing security. 29 bicycle racks providing 58 spaces are to be provided around the great lawn, ensuring even distribution.

For major events with attendance levels of 15,000 or more, additional bike parking is provided and promoted for free valet bike parking is provided near TD Place Gate 4 south of the Abderdeen Pavilion.

Figure 4: TD Place Bike & Park Valet Service for Major Events (2015)

On-Site Parking Management:

For major events at Lansdowne, primarily Ottawa Redblacks CFL Football games, no on-site parking is provided for purchase and drive-up is discouraged through regular messaging and trip planning information featured on-line. A limited number of parking passes are provided to club and suite ticket holders with access. Major event attendees are strongly encouraged to utilize the free Park & Shuttle service, cycling or walk to travel to Lansdowne for major events.

Alternative Off-Site Parking:

Similar to minor events, information on nearby off-street parking near Lansdowne is provided as an alternative to on-site parking.

MEGA EVENTS (ATTENDANCE LEVELS OF 29,000 OR MORE)

Mega Events scenarios are infrequent events representative of expanded capacity or concurrently running events with attendance levels that exceed typical sold-out events at the stadium. These scenarios require additional transportation services and traffic management measures.

Under the initial Lansdowne Revitalization Plan, Mega Events were identified to accommodate expanded seating stadium events with attendance levels reaching 40,000 including large concerts, or once-in-a-lifetime jewel events such as the CFL Grey Cup.

Under Lansdowne 2.0, the definition of Mega Events has been revised to include concurrent sold-out event centre and stadium events held at Lansdowne with a combined attendance level of 29,000.

Further enhancements to 450-series service will be required to support special events with attendance levels of 29,000 or more. It is anticipated that a total of 30 to 35 additional transit trips are required across the 450-series service to meet transit demands for 40,000 person mega events.

In addition to the provision of 450-series service and TD Place Park & Shuttle service from City Hall and Canada Post, additional off-site satellite Park & Shuttle service may be required to support demands, particularly for mega events at the 40,000 person attendance level. For a 40,000 attendance mega events, additional Park & Shuttle facilities should be secured at Vincent Massey Park and/or the EY Centre depending on the attendance level and level of service requirements.

For 40,000 attendance Mega Events, restricted access on QED may be required to support enhanced Park & Shuttle operations from satellite parking locations.

Figure 5: TD Place Park & Shuttle Routes Operated by OSEG for Mega Events

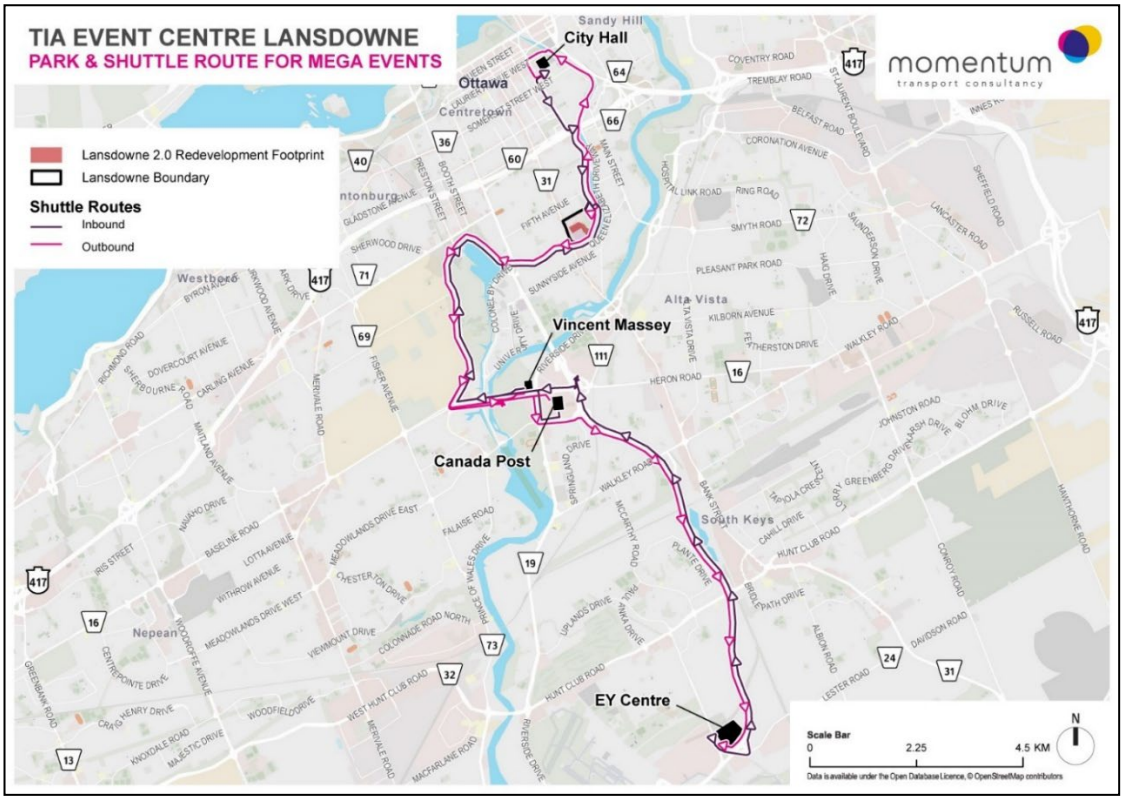


Table 7: Lansdowne 2.0 Transportation Services Required for Varying Event Sizes

Event Size / Classification --- Transportation Services Provided	Event Centre	Event Centre + LP Events*	Small Stadium Event	Average Stadium Event	Sold-Out Stadium Event	Concurrent Sold-Out Stadium + Event Centre	Mega Event: Expanded Stadium Seating + Event Centre
	3,000 - 5,000	**5,000 - 10,000**	**10,000 - 15,000**	**15,000 - 18,000**	**18,000 - 22,000**	**22,000 - 29,000**	**29,000 – 40,000**
	Minor Events		**Major Events**			**Mega Events**	
Enhanced Transit Service	*Not Required*	Increased transit service on Bank Street Route 6 and Route 7 (as required)					
Valet Bike Parking	*Not Required*	Free, Secure Valet Bike Parking					
Park & Shuttle	*Not Required*	As Required (Carleton U Shuttle)	Enhanced Transit 450-Series shuttle service from OC Transpo / STO				
			Satellite Park & Shuttle Service from City Hall and Canada Post				
Additional Park & Shuttle Service	*Not Required*						Additional Service from Vincent Massey and/or EY Centre (As Required)

Additional TDM Opportunities

The July 2023 TDM Strategy Report developed for Lansdowne 2.0 recognizes the challenges associated with Minor Events at Lansdowne, particularly on busy weekend periods with overlapping programming, and the challenges associated with traffic delays experienced by all road users on Bank Street. These challenges are especially pronounced when there are programming closures on QED to support community programming such as Winterlude, the Ottawa Race Weekend events, and the most recent closures of QED on weekends as part of a pilot project to support active modes on the scenic parkway. These closures result in a significant diversion of traffic onto Bank Street which increases delays and cut through traffic on local neighborhood streets. The report identified future opportunities to further enhance the TDM program for special events at Lansdowne.

Transit Priority Improvements

Opportunities to improve transit service along Bank Street for Routes 6 and 7 will be evaluated through the City of Ottawa's Active and Transit Operations study for Bank Street. Potential improvements, which may include transit signal priority measures and enhanced bus shelters, can improve transit service reliability and passenger comfort. These improvements to service reliability and passenger comfort on Bank Street will help to promote transit service to Lansdowne as a viable and attractive option for day-to-day travel, as well as for Minor Events.

Fare Free Zone Pilot

Opportunities to promote transit use, particularly on busy weekends, could potentially include exploring the feasibility of introducing a "Fare Free" zone on Bank Street to support local businesses, including Lansdowne, and reduce the reliance on auto travel.

This initiative can support programming at Lansdowne during busy weekend periods that include the Ottawa Farmer's Market or 613Flea, as well as merchants along Bank Street between downtown Ottawa and the Glebe. The "Fare Free" zone can be provided on Route 6 and/or 7 during certain hours and specific days of the week. For example, service delivery could potentially include providing "Fare Free" service on Route 7, between Carleton University and downtown Ottawa (Rideau Station), on Saturdays and Sundays between the hours of 9:00 AM and 3:00 PM.

The feasibility and challenges of providing "Fare Free" service on Bank Street will need to be studied and evaluated. This type of service should be considered as part of the traffic management strategy to support alternative modes of transportation and to reduce traffic impacts associated with events such as Winterlude, Ottawa Race Weekend, etc.

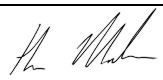
Project & Document Details

Project Name	Lansdowne 2.0 – Phase 1 (Event Centre)
Project Number	C000218
Document Title	Transportation Demand Management Measures Overview

Document History

Issue	Status	Reason for Issue	Issued to
1.0	Draft	Draft for comments	City of Ottawa/OSEG
2.0	Complete	Address City comments	City of Ottawa/OSEG

Issue Control

Issue	Date	Author	Contributors	Authorisation	
				Name	Signature
1.0	08/2024	AD	HM	Hassan Madhoun	
2.0	01/2025	AD	HM	Hassan Madhoun	

TDM-SUPPORTIVE DEVELOPMENT DESIGN AND INFRASTRUCTURE CHECKLIST
(OFFICE, INSTITUTIONAL OR INDUSTRIAL)

Project	Lansdowne 2.0 – Event Centre (Phase 1)
Report Title	TDM Measures Checklist Non-residential Developments
Date	22/01/2025
Prepared by	Momentum
Prepared for	City of Ottawa / Ottawa Sports and Entertainment Group

1. WALKING & CYCLING: ROUTES

1.1 Building location & access points

1.1.1. Locate building close to the street, and do not locate parking areas between the street and building entrances

✓ No on-street parking is provided between building entrance public realm areas. On-site parking spaces would be available for event days and included underground parking.

1.1.2. Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations

✓ The Event Centre entrances are located a short distance from Bank Street via pedestrian links and are connected to the Multi-use pathway (MUP) that runs along the Rideau Canal.

1.1.3. Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort

N/A as the Event Centre building is not located on-street.

1.2 Facilities for walking & cycling

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)

✓ Convenient and wide pedestrian link to Bank Street through Exhibition Way. Bus stops with shelters are located on Bank Street.

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)

- ✓ Wide pedestrian walkways are provided on-site around the Event Centre as shown in the attached Site Plan.

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)

- ✓ Smooth and well drained pedestrian links are provided around the Event Centre as shown in Figure 1 above. Use of landscaping treatment and TWSIs used to delineate pedestrian pathways from limited use vehicle pathways.

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)

- ✓ Sidewalks are wide and the Event Centre is accessible via gradual ramps.

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)

- ✓ As part of the Bank Street Canal Bridge Rehabilitation Project, 1.5m cycle tracks have been implemented on both sides of the Bank Street Bridge between Exhibition Way and Aylmer Avenue in conjunction with a 3-lane cross-section (2 northbound lanes, 1 southbound lane). Other than the newly installed cycling lanes on the Bank Street Bridge, there is a northbound bike lane on Bank Street across the frontage of the site.

1.2.6. Provide safe, direct and attractive walking routes from building entrances to nearby transit stops

- ✓ Bus stops on either side of Bank Street at Exhibition Way can both be accessed safely via wide pavements or crossing a signalised intersection.

1.2.7. Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible

- ✓ Retail units canopies and lampposts on Exhibition Way provide transit users shelter and light on their route.

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

- ✓ Exhibition and Marché Way and other roads have a speed limit of 30 km/h.

1.3 Amenities for walking & cycling

1.3.1. Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails

- ✓ Lampposts and benches are provided along Marché and Exhibition Ways.

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)

- ✓ Lansdowne currently features a wayfinding signage system throughout the public realm to help orient visitors and provide directions on access and circulation, as well as to stadium gates, transit bus and shuttle stop locations, public realm amenities (i.e. the Aberdeen Pavilion, the Horticulture Building), on-site tenants and businesses, and access points to the underground parking garage.
- ✓ Wayfinding and code required signage for Lansdowne 2.0 will be revised as required to support the interim phase of construction and operations of the new Event Centre (Phase 1) and new North Stadium Stands (Phase 2).
- ✓ Final Wayfinding and code required signage will be implemented to support the full build-out of Lansdowne 2.0. The revised wayfinding system, which is subject to a City of Ottawa led review and approval process, will continue to provide visitors with directions on access and circulation, including directional information to transit bus stop and shuttle locations, as well as connections to key pedestrian and cycling facilities.

2. WALKING & CYCLING: END-OF-TRIP FACILITIES

2.1 Bicycle parking

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)

- ✓ Cycle parking stands are provided on-street along Marché and Exhibition Ways.

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)

- ✓ Currently, Lansdowne feature a total of 285 surface level bike racks. As part of the Lansdowne 2.0 Phase 1 site plan, a total of 47 bicycle racks providing are to be provided as part of the proposed site plan application for the Event Centre (Phase 1).

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)

N/A - no internal cycle parking spaces are provided as part of Phase 1 – Event Centre of the development. Internal cycle parking is provided as part of the wider Lansdowne 2.0 development.

2.1.4. 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

- ✓ 47 bicycle racks are proposed site plan application for the Event Centre (Phase 1).
- ✓ As part of the overall Lansdowne 2.0 project, additional bicycle parking spaces are required to subsequent phases of development at Lansdowne, namely Phase 3 for the new retail podium and two residential towers. Based on the City of Ottawa Zoning By-Laws, the minimum bicycle parking requirement for the subject property is 0.5 spaces per dwelling unit. To offset the reduced parking requirements and to encourage alternative modes of transportation, the residential bicycle parking rate is proposed to be increased to 1 space per dwelling unit, for a total of 770 bicycle parking spaces. All other bicycle parking requirements for non-residential uses are not proposed to be changed and will comply with the applicable requirements of Section 111 of the Zoning By-law.
- ✓ The total number and allocation of bicycle parking spaces will be finalized in subsequent phases of design development for Lansdowne 2.0.

2.2 Secure bicycle parking

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)

- ✓ 47 bicycle racks are proposed as part of the site plan application for the Event Centre (Phase 1). Lansdowne currently has approximately 285 surface level bike racks throughout the park. In addition, secure bicycle parking spaces are provided in the garage that are accessible by Lansdowne employees, including stadium and arena staff.

2.2.2. Provide secure bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met).

- ✓ 47 bike racks are to be provided as part of the proposed site plan application for the Event Centre (Phase 1). The cycle parking is located in a well-lit area. Lansdowne also has 24/7 security and CCTV surveillance coverage which will ensure secure cycle parking is provided for Event Centre visitors.

2.3 Shower & change facilities

2.3.1. Provide shower and change facilities for the use of active commuters

- ✓ No additional shower and change facilities are proposed as part of the proposed site plan application for the new Event Centre (Phase 1) but showers are currently provided for the wider site at the office building on Bank Street and will be accessible to staff.

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

- ✓ No dedicated lockers are proposed as part of the proposed site plan application for the new event centre (Phase 1) but showers are provided for the wider site and will be accesible to staff.

2.4 Bicycle repair station

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)

✓ There is a bike repair station in the public area on Princess Patricia Way.

3. TRANSIT

3.1 Customer amenities

3.1.1. Provide shelters, lighting and benches at any on-site transit stops

Not applicable as no on-site transit stops are provided.

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

✓ Sheltered bus stops with benches are provided on Bank Street.

3.1.3. Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building

Not applicable for the Event Centre as it is not directly facing transit stops. Interior Waiting areas exist within the Whole Foods Market public lobby.

4. RIDESHARING

4.1 Pick-up & drop-off facilities

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

✓ Accessible shuttle drop off will be available at Gate 4.

4.2 Carpooling parking

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

✓ Two E-Charging units for Communauto will be provided in front of the condo residential tower on Exhibition Way.

4.2.2. At large developments, provide spaces for carpools in a separate, access-controlled parking area to simplify enforcement

Not applicable

5. CARSHARING AND BIKESHARING

5.1 Carshare parking spaces

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)

Not applicable for Phase 1 - to be confirmed as part of Phase 3 of Lansdowne 2.0

5.2 Bikeshare station location

5.2.1. Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection

Not applicable for Phase 1 - to be confirmed as part of Phase 3 of Lansdowne 2.0

6. Parking

6.1 Number of parking spaces

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

Not applicable, as no additional parking spaces are provided as part of Phase 1 of Lansdowne 2.0. The Event Centre will continue to use the 1,000 underground parking spaces provided at Lansdowne.

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

Not applicable, as no additional parking spaces are provided as part of Phase 1 of Lansdowne 2.0. The Event Centre will continue to use the 1,000 underground parking spaces provided at Lansdowne.

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)

Not applicable

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).

Not applicable

6.2 Separate long-term & short-term parking areas

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)

✓ Access controls are provided at all underground parking garage entrances. Barriers and nested zones are located within the underground parking garage accessible. Within this car park, barriers divide long stay parking and the Whole Foods, residential parking.

7. OTHER

7.1 On-site amenities to minimize off-site trips

Commuter travel

7.1.1. Provide on-site amenities to minimize mid-day or mid-commute errands

✓ Non-food and food retail as well as services are provided on Exhibition Way and Marché Way.

Project & Document Details

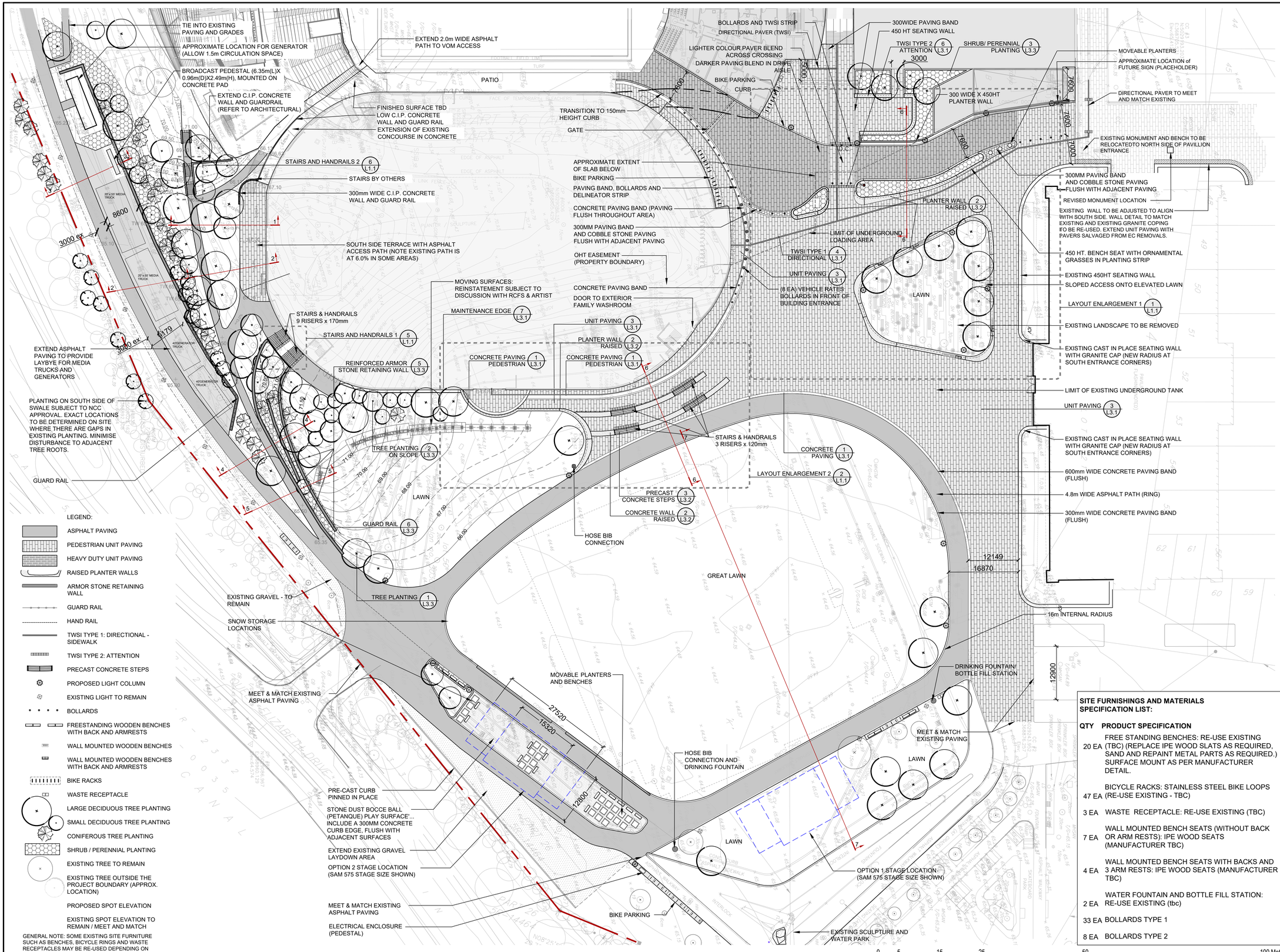
Project Name	Lansdowne 2.0 – TIA Event Centre (Phase 1)
Project Number	C000218
Document Title	TDM-Supportive Development Design and Infrastructure Checklist

Document History

Issue	Status	Reason for Issue	Issued to
1.0	Completed	Addressing city of Ottawa comments	City of Ottawa / OSEG

Issue Control

Issue	Date	Author	Contributors	Authorisation	
				Name	Signature
1.0	22/01/2025	AD	KP	HM	



LEGEND:

- ASPHALT PAVING
- PEDESTRIAN UNIT PAVING
- HEAVY DUTY UNIT PAVING
- RAISED PLANTER WALLS
- ARMOR STONE RETAINING WALL
- GUARD RAIL
- HAND RAIL
- TWSI TYPE 1: DIRECTIONAL - SIDEWALK
- TWSI TYPE 2: ATTENTION
- PRECAST CONCRETE STEPS
- PROPOSED LIGHT COLUMN
- EXISTING LIGHT TO REMAIN
- BOLLARDS
- FREESTANDING WOODEN BENCHES WITH BACK AND ARMRESTS
- WALL MOUNTED WOODEN BENCHES
- WALL MOUNTED WOODEN BENCHES WITH BACK AND ARMRESTS
- BIKE RACKS
- WASTE RECEPTACLE
- LARGE DECIDUOUS TREE PLANTING
- SMALL DECIDUOUS TREE PLANTING
- CONIFEROUS TREE PLANTING
- SHRUB / PERENNIAL PLANTING
- EXISTING TREE TO REMAIN
- EXISTING TREE OUTSIDE THE PROJECT BOUNDARY (APPROX. LOCATION)
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION TO REMAIN / MEET AND MATCH

GENERAL NOTE: SOME EXISTING SITE FURNITURE SUCH AS BENCHES, BICYCLE RINGS AND WASTE RECEPTACLES MAY BE RE-USED DEPENDING ON CONDITION AT START OF WORKS

SITE FURNISHINGS AND MATERIALS SPECIFICATION LIST:

QTY	PRODUCT SPECIFICATION
20 EA	FREE STANDING BENCHES: RE-USE EXISTING (TBC) (REPLACE IPE WOOD SLATS AS REQUIRED, SAND AND REPAINT METAL PARTS AS REQUIRED.) SURFACE MOUNT AS PER MANUFACTURER DETAIL.
47 EA	BICYCLE RACKS: STAINLESS STEEL BIKE LOOPS (RE-USE EXISTING - TBC)
3 EA	WASTE RECEPTACLE: RE-USE EXISTING (TBC)
7 EA	WALL MOUNTED BENCH SEATS (WITHOUT BACK OR ARM RESTS): IPE WOOD SEATS (MANUFACTURER TBC)
4 EA	WALL MOUNTED BENCH SEATS WITH BACKS AND 3 ARM RESTS: IPE WOOD SEATS (MANUFACTURER TBC)
2 EA	WATER FOUNTAIN AND BOTTLE FILL STATION: RE-USE EXISTING (tbc)
33 EA	BOLLARDS TYPE 1
8 EA	BOLLARDS TYPE 2

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DATE PLOTTED: 2024-09-30 9:23:15 AM

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NO.	DESCRIPTION	DATE
9	ISSUED FOR CITY SPA COMMENTS	2025-01-15
8	CD RELEASE	2024-12-23
7	ISSUED FOR 90% DD	2024-11-15
6	ISSUED FOR 50% DD	2024-10-18
5	ISSUED FOR 35% DD	2024-10-04
4	ISSUED FOR CITY SPA COMMENTS	2024-09-05
3	ISSUED FOR CITY SPA	2024-08-07
2	ISSUED FOR COORDINATION	2024-06-28
1	ISSUED FOR PRE-CONSULTATION	2024-05-31

REVISIONS/ ISSUES

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ANY OMISSIONS OR DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
DO NOT SCALE THE DRAWINGS

SEAL

ASSOCIATION OF LANDSCAPE DESIGNERS ONTARIO — GERALD S. COUSINS — OALA MEMBER

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF PRELIMINARY SUBMITTAL

IT IS NOT TO BE USED FOR CONSTRUCTION PURPOSES

DRAWN: SE / JA
DATE: 05/31/24
CHECKED: JC

LANSDOWNE 2.0
EVENT CENTRE, NORTH SIDE STANDS AND PUBLIC REALM ENHANCEMENTS
945 & 1015 BANK STREET

DWG. TITLE
LANDSCAPE LAYOUT PLAN

SCALE: 1 : 400
PROJ. NO.: CSW #1766-12
DWG. NO.: EC-L1.0

FILE NO. D07-12-24-0062

PLAN # 19172

TDM MEASURES CHECKLIST NON-RESIDENTIAL DEVELOPMENTS (OFFICE, INSTITUTIONAL OR INDUSTRIAL)

Project	Lansdowne 2.0 – Event Center (Phase 1)
Report Title	TDM Measures Checklist (Non-residential Developments)
Date	22/01/2025
Prepared by	Momentum
Prepared for	City of Ottawa / Ottawa Sports and Entertainment Group

1. TDM PROGRAM MANAGEMENT

1.1 Program coordinator

1.1.1. Designate an internal coordinator, or contract with an external coordinator

- ✓ TDM coordinator currently in place for the wider development site.

1.2 Travel surveys

1.2.1. Conduct periodic surveys to identify travel-related behaviors, attitudes, challenges and solutions, and to track progress

- ✓ Currently in place for the wider development site, OSEG takes annual travel surveys for particular events at Lansdowne 2.0.

2. WALKING AND CYCLING

2.1 Information on walking/cycling routes & destinations

2.1.1. Display local area maps with walking/cycling access

- ✓ Online maps are available on the City of Ottawa website.
- ✓ OSEG/Lansdowne maps are available throughout the site.

2.2 Bicycle skills training

Commuter Travel

2.2.1. Offer on-site cycling courses for commuters, or subsidize off-site courses

- ✓ Annual workshops are already in place in other parts of the site and would be offered to the new Event Center staff.

2.3 Valet bike parking

Visitor Travel

2.3.1. Offer secure valet bike parking during public events when demand exceeds fixed supply (e.g. for festivals, concerts, games)

- ✓ OSEG is currently working with a partnership with CAA for Bike Valet. The valet parking is currently located at near Gate 4 at the Aberdeen Plaza and would be located at the same place at opening of Lansdowne 2.0.

3. TRANSIT

3.1 Transit information

3.1.1. Display relevant transit schedules and route maps at entrances

- ✓ Not applicable.

3.1.2. Provide online links to OC Transpo and STO information

- ✓ Links are provided when booking tickets and on booking confirmation email.
- ✓ OC Transpo website has a dedicated Lansdowne trip planning tool.

3.1.3. Provide real-time arrival information display at entrances

- ✓ Not applicable for the Event Center entrances.

3.2 Transit fare incentives

Commuter travel

3.2.1. Offer preloaded PRESTO cards to encourage commuters to use transit

- ✓ Not applicable due to the location of a large number of employees, including seasonal part-time staff.

3.2.2. Subsidize or reimburse monthly transit pass purchases by employees

- ✓ Not applicable due to the location of a large number of employees, including seasonal part-time staff.

Visitor travel

3.2.3. Arrange inclusion of same-day transit fare in price of tickets (e.g. for festivals, concerts, games)

- ✓ Free transit is offered on event days to all ticket holders starting three hours before and three hours after the event.
- ✓ The service is provided at no cost to ticket holders.
- ✓ The cost of service is borne by event organizers.

3.3 Enhanced public transit service

Commuter travel

3.3.1. Contract with OC Transpo to provide enhanced transit services (e.g. for shift changes, weekends)

- ✓ There is close coordination between OSEG and OC Transpo to provide enhanced services during events for visitors and staff.

Visitor Travel

3.3.2. Contract with OC Transpo to provide enhanced transit services (e.g. for festivals, concerts, games)

- ✓ Enhanced transit service has been operating with additional OC Transpo buses provided on Bank Street for events above 5,000 capacity. Additional services are requested based on estimated drop count to OC Transpo
- ✓ Service ranges from two to eight extra trips depending on numbers.

3.4 Private transit vehicles

Commuter travel

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 as transit enhancements are delivered by OC Transpo.

Visitor travel

3.4.2. Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand (e.g. for festivals, concerts, games).

- ✓ Private OSEG shuttles are provided from Carleton University for Ottawa 67's and Ottawa Charge games at Lansdowne.

4. RIDESHARING

4.1 Ridematching service

Commuter travel

4.1.1. Provide a dedicated ridematching portal at OttawaRideMatch.com

- ✓ Not Applicable as general OttawaRideMatch.com portal is not available for use.

4.2 Carpooling parking price incentives

Commuter travel

4.2.1. Provide discounts on parking costs for registered carpools

- ✓ There is currently no discount provided on parking costs for registered carpools but an option is being developed for weekdays during business hours, up to 5pm.

4.3 Vanpool service

Commuter travel

4.3.1. Provide a vanpooling service for long-distance commuters

- ✓ The site currently offers parking for group buses and based on staging space available on site, arrangements could be made available for vanpooling.

5. CARSHARING AND BIKESHARING

5.1 Bikeshare stations & memberships

5.1.1. Contract with provider to install on-site bikeshare station for use by commuters and visitors

- ✓ Micromobilty e-scooter trials have been running in Ottawa since 2022 and could be expected to be continued up until opening date.

Commuter travel

5.1.2. Provide discounts on parking costs for registered carpools

- ✓ Not Applicable

5.2 Carshare vehicles & memberships

Commuter travel

5.2.1. Contract with provider to install on-site carshare vehicles and promote their use by tenants

- ✓ Two E-Charging units for Communauto are to be implemented in front of the condo residential tower on Exhibition Way.

5.2.2. Provide employees with carshare memberships for local business travel

- ✓ The site will look at providing employees carshare memberships for when Communauto is implemented on site.

6. PARKING

6.1 Priced parking

Commuter travel

6.1.1. Charge for long-term parking (daily, weekly, monthly)

- ✓ Daily parking rate varies by day and event, between $20 and $30 as of November 2024. There is no weekly rate available to commuters. Monthly rate is not available to the general public but is available to tenants at $155.

6.1.2. Unbundle parking cost from lease rates at multi-tenant sites

- ✓ Not applicable has the Event Center is not a residential development.

Visitor travel

6.1.3. Charge for short-term parking

- ✓ It currently costs 17$ for visitors to park on-site during an event. The number of parking tickets available to buy by visitors is limited.

7. TDM MARKETING & COMMUNICATIONS

7.1 Multimodal travel information

Commuter travel

7.1.1. Provide a multimodal travel option information package to new/relocating employees and students

- ✓ Information promoting walking and cycling as a convenient way to travel to TD Place is featured throughout TD Place communications and on the City of Ottawa Lansdowne Park website.

Visitor travel

7.1.2. Include multimodal travel option information in invitations or advertising that attract visitors or customers (e.g. for festivals, concerts, games)

- ✓ Multi-travel option information included in booking confirmation and reminder email.
- ✓ Information promoting walking and cycling as a convenient way to travel to TD Place is featured throughout TD Place communications and on the City of Ottawa Lansdowne Park website.

7.2 Personalized trip planning

Commuter travel

7.2.1. Offer personalized trip planning to new/relocating employees

- ✓ Information promoting walking and cycling as a convenient way to travel to TD Place is featured throughout TD Place communications and on the City of Ottawa Lansdowne Park website.

7.3 Promotions

Commuter travel

7.3.1. Deliver promotions and incentives to maintain awareness, build understanding, and encourage trial of sustainable modes

- ✓ OC Transpo filmed a promotional video with both mascots in 2024 to encourage travel using sustainable modes of transportation.

8. OTHER INCENTIVES AND AMENITIES

8.1 Emergency ride home

Commuter travel

8.1.1. Provide emergency ride home service to non-driving commuters

- ✓ TD Place Stadium makes emergency ride-home available for employees and TD Place guests through the onsite Security Department.

8.2 Alternative work arrangements

Commuter travel

8.2.1. Encourage flexible work hours

Not applicable as the venue employees work around the events schedule.

8.2.2. Encourage compressed workweeks

Not applicable as the venue employees work around the events schedule.

8.2.3. Encourage telework

Not applicable as the venue employees have to be on-site for work.

8.3 Local business travel options

Commuter travel

8.3.1. Provide local business travel options that minimize the need for employees to bring a personal car to work

- ✓ A fare Free" zone on Bank Street to support local businesses will be introduced to reduce the reliance on auto travel.

8.4 Commuter incentives

Commuter travel

8.4.1. Offer employees a taxable, mode-neutral commuting allowance

Not applicable due to a large proportion of employees living far away from the site.

8.5 On-site amenities

Commuter travel

8.5.1. Provide on-site amenities/services to minimize mid-day or mid-commute errands

- ✓ Secure bike parking for employees, shower and changing rooms are available on the wider Lansdowne 2.0 site for employees.

Project & Document Details

Project Name	Lansdowne 2.0 – TIA Event Center (Phase 1)
Project Number	C000218
Document Title	TDM Measures Checklist- Non-Residential Developments

Document History

Issue	Status	Reason for Issue	Issued to
1.0	Completed	Addressing city of Ottawa comments	City of Ottawa / OSEG

Issue Control

Issue	Date	Author	Contributors	Authorisation	
				Name	Signature
1.0	22/01/25	AD	KP	HM	

APPENDIX H – SYNCHRO SUMMARY SHEETS

APPENDIX F – SYNCHRO SUMMARY SHEETS

SYNCHRO SUMMARY SHEETS – EXISTING

EXISTING – WEEKDAY AM

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	104	65	5	5	5
Future Vol, veh/h	5	104	65	5	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	116	72	6	6	6
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	7.7	7.4	7.2
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	0%	50%
Vol Thru, %	95%	93%	0%
Vol Right, %	0%	7%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	109	70	10
LT Vol	5	0	5
Through Vol	104	65	0
RT Vol	0	5	5
Lane Flow Rate	121	78	11
Geometry Grp	1	1	1
Degree of Util (X)	0.135	0.086	0.013
Departure Headway (Hd)	4.021	4.001	4.074
Convergence, Y/N	Yes	Yes	Yes
Cap	893	894	866
Service Time	2.041	2.03	2.157
HCM Lane V/C Ratio	0.135	0.087	0.013
HCM Control Delay, s/veh	7.7	7.4	7.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.3	0

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	5	5	119	5	5
Future Vol, veh/h	2	5	5	119	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	6	6	132	6	6
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	6.7	7.7	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	4%
Vol Thru, %	0%	29%	96%
Vol Right, %	50%	71%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	10	7	124
LT Vol	5	0	5
Through Vol	0	2	119
RT Vol	5	5	0
Lane Flow Rate	11	8	138
Geometry Grp	1	1	1
Degree of Util (X)	0.012	0.008	0.152
Departure Headway (Hd)	3.985	3.627	3.968
Convergence, Y/N	Yes	Yes	Yes
Cap	890	985	908
Service Time	2.045	1.656	1.972
HCM Lane V/C Ratio	0.012	0.008	0.152
HCM Control Delay, s/veh	7.1	6.7	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0	0.5

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	5	65	55	69	40
Future Vol, veh/h	2	5	65	55	69	40
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	6	72	61	77	44
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	6.9	8.1	7.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	63%	0%	54%
Vol Thru, %	0%	29%	46%
Vol Right, %	37%	71%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	109	7	120
LT Vol	69	0	65
Through Vol	0	2	55
RT Vol	40	5	0
Lane Flow Rate	121	8	133
Geometry Grp	1	1	1
Degree of Util (X)	0.137	0.008	0.158
Departure Headway (Hd)	4.086	3.822	4.262
Convergence, Y/N	Yes	Yes	Yes
Cap	866	920	835
Service Time	2.164	1.915	2.32
HCM Lane V/C Ratio	0.14	0.009	0.159
HCM Control Delay, s/veh	7.8	6.9	8.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0	0.6

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	65	40	0	0	0	70	18	31	23	0	0	105
Future Vol, veh/h	65	40	0	0	0	70	18	31	23	0	0	105
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	72	44	0	0	0	78	20	34	26	0	0	117
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.4	7.3	7.8	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	62%	0%	0%
Vol Thru, %	43%	38%	0%	0%
Vol Right, %	32%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	72	105	70	105
LT Vol	18	65	0	0
Through Vol	31	40	0	0
RT Vol	23	0	70	105
Lane Flow Rate	80	117	78	117
Geometry Grp	1	1	1	1
Degree of Util (X)	0.096	0.148	0.084	0.125
Departure Headway (Hd)	4.341	4.562	3.881	3.855
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	828	791	926	932
Service Time	2.356	2.562	1.895	1.868
HCM Lane V/C Ratio	0.097	0.148	0.084	0.126
HCM Control Delay, s/veh	7.8	8.4	7.3	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.5	0.3	0.4

1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	37	57	47	49	9	534	19	410
Future Volume (vph)	37	57	47	49	9	534	19	410
Lane Group Flow (vph)	0	135	52	86	0	635	0	515
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Act Effct Green (s)		20.5	20.5	20.5		43.5		43.5
Actuated g/C Ratio		0.27	0.27	0.27		0.58		0.58
v/c Ratio		0.36	0.18	0.21		0.38		0.32
Control Delay (s/veh)		21.9	22.9	15.9		2.6		8.5
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		21.9	22.9	15.9		2.6		8.5
LOS		C	C	B		A		A
Approach Delay (s/veh)		21.9		18.5		2.6		8.5
Approach LOS		C		B		A		A
Queue Length 50th (m)		12.9	5.6	5.7		4.5		17.1
Queue Length 95th (m)		27.2	14.0	16.0		5.3		25.6
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		376	290	418		1655		1594
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.36	0.18	0.21		0.38		0.32

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 33 (44%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Pretimed
Maximum v/c Ratio: 0.38
Intersection Signal Delay (s/veh): 8.1 — Intersection LOS: A
Intersection Capacity Utilization 53.5% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth

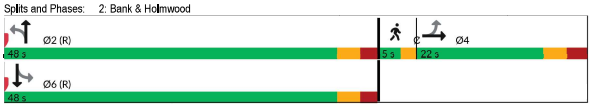
2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	21	16	521	11	366	
Future Volume (vph)	21	16	521	11	366	
Lane Group Flow (vph)	85	0	627	0	443	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	10.0		57.5		57.5	
Actuated g/C Ratio	0.13		0.77		0.77	
v/c Ratio	0.47		0.29		0.21	
Control Delay (s/veh)	37.6		2.0		3.1	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	37.6		2.0		3.1	
LOS	D		A		A	
Approach Delay (s/veh)	37.6		2.0		3.1	
Approach LOS	D		A		A	
Queue Length 50th (m)	11.3		1.6		6.9	
Queue Length 95th (m)	22.6		4.5		13.2	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	298		2141		2154	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.29		0.29		0.21	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 28 (37%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.47
Intersection Signal Delay (s/veh): 5.0 — Intersection LOS: A
Intersection Capacity Utilization 51.4% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



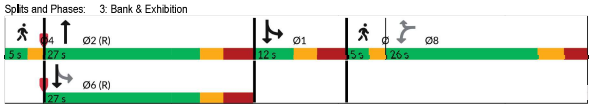
3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø4	Ø6	Ø7
Lane Configurations								
Traffic Volume (vph)	51	32	495	64	332			
Future Volume (vph)	51	32	495	64	332			
Lane Group Flow (vph)	57	36	661	71	369			
Turn Type	Perm	Perm	NA	custom	NA			
Protected Phases			2	1	1 6	4	6	7
Permitted Phases	8	8		6				
Detector Phase	8	8	2	1	1 6			
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	1.0		3.0	10.0	3.0
Minimum Split (s)	26.0	26.0	27.0	7.9		5.0	27.0	5.0
Total Split (s)	26.0	26.0	27.0	12.0		5.0	27.0	5.0
Total Split (%)	34.7%	34.7%	36.0%	16.0%		7%	36%	7%
Yellow Time (s)	3.3	3.3	3.0	3.0		2.0	3.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9		0.0	3.9	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0				
Total Lost Time (s)	6.3	6.3	6.9	6.9				
Lead/Lag	Lag	Lag						Lead
Lead-Lag Optimize?								Yes
Recall Mode	None	None	C-Max	None		None	C-Max	None
Act Effct Green (s)	10.3	10.3	42.7	47.8	56.1			
Actuated g/C Ratio	0.14	0.14	0.57	0.64	0.75			
v/c Ratio	0.29	0.20	0.41	0.17	0.16			
Control Delay (s/veh)	33.0	13.2	10.6	8.9	6.7			
Queue Delay	0.0	0.0	0.0	0.0	0.0			
Total Delay (s/veh)	33.0	13.2	10.6	8.9	6.7			
LOS	C	B	B	A	A			
Approach Delay (s/veh)	25.3		10.6		7.1			
Approach LOS	C		B		A			
Queue Length 50th (m)	7.4	0.0	26.4	5.1	14.8			
Queue Length 95th (m)	17.2	7.4	40.5	11.7	22.7			
Internal Link Dist (m)	30.6		33.7		44.8			
Turn Bay Length (m)				40.0				
Base Capacity (vph)	377	316	1621	428	2350			
Starvation Cap Reductn	0	0	0	0	0			
Spillback Cap Reductn	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0			
Reduced v/c Ratio	0.15	0.11	0.41	0.17	0.16			

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 25 (33%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.41
Intersection Signal Delay (s/veh): 10.5 — Intersection LOS: B
Intersection Capacity Utilization 55.3% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition



6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	58	14	690	509	
Future Volume (vph)	58	14	690	509	
Lane Group Flow (vph)	71	0	783	622	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	20.0	55.0	55.0	55.0	5.0
Total Split (s)	20.0	55.0	55.0	55.0	5.0
Total Split (%)	25.0%	68.8%	68.8%	68.8%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	None	C-Max	C-Max	C-Max	None
Act Effct Green (s)	10.5		62.9	62.9	
Actuated g/C Ratio	0.13		0.79	0.79	
v/c Ratio	0.35		0.34	0.27	
Control Delay (s/veh)	34.2		2.1	3.4	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	34.2		2.1	3.4	
LOS	C		A	A	
Approach Delay (s/veh)	34.2		2.1	3.4	
Approach LOS	C		A	A	
Queue Length 50th (m)	9.2		9.1	12.2	
Queue Length 95th (m)	20.4		m13.4	20.2	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	281		2314	2341	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.25		0.34	0.27	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 4 (5%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.35
Intersection Signal Delay (s/veh): 4.2 — Intersection LOS: A
Intersection Capacity Utilization 51.2% — ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø6	Ø7
Lane Configurations											
Traffic Volume (vph)	56	58	18	58	22	945	183	374			
Future Volume (vph)	56	58	18	58	22	945	183	374			
Lane Group Flow (vph)	0	139	0	380	0	1088	0	666			
Turn Type	Perm	NA	Perm	NA	Perm	NA	custom	NA			
Protected Phases		4		8		2	1	1 6	3	6	7
Permitted Phases	4		8		2		6				
Detector Phase	4	4	8	8	2	2	1	1 6			
Switch Phase											
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0		1.0	17.0	1.0
Minimum Split (s)	26.0	26.0	26.0	26.0	38.0	38.0	11.0		5.0	49.0	5.0
Total Split (s)	26.0	26.0	26.0	26.0	38.0	38.0	11.0		5.0	38.0	5.0
Total Split (%)	32.5%	32.5%	32.5%	32.5%	47.5%	47.5%	13.8%		6%	48%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		2.0	3.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9		0.0	3.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0					
Total Lost Time (s)		5.6		5.6		6.0					
Lead/Lag	Lag	Lag	Lag	Lag					Lead		Lead
Lead-Lag Optimize?			Yes	Yes							Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None		None	C-Max	None
Act Effct Green (s)		20.2		20.2		34.4		42.4			
Actuated g/C Ratio		0.25		0.25		0.43		0.53			
v/c Ratio		0.68		0.87		0.86		0.67			
Control Delay (s/veh)		43.0		32.4		30.6		14.8			
Queue Delay		0.0		0.0		0.0		0.0			
Total Delay (s/veh)		43.0		32.4		30.6		14.8			
LOS		D		C		C		B			
Approach Delay (s/veh)		43.0		32.4		30.6		14.8			
Approach LOS		D		C		C		B			
Queue Length 50th (m)		18.1		23.2		80.4		26.2			
Queue Length 95th (m)		35.5		#68.0		#122.0		#36.0			
Internal Link Dist (m)		75.1		136.0		63.1		79.0			
Turn Bay Length (m)											
Base Capacity (vph)		231		469		1265		990			
Starvation Cap Reductn		0		0		0		0			
Spillback Cap Reductn		0		0		0		0			
Storage Cap Reductn		0		0		0		0			
Reduced v/c Ratio		0.60		0.81		0.86		0.67			

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 79 (99%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay (s/veh): 27.0 Intersection LOS: C
Intersection Capacity Utilization 92.2% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	46	23	217	280	
Future Volume (vph)	46	23	217	280	
Lane Group Flow (vph)	70	0	267	363	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	32.0	32.0	32.0	16.0
Total Split (s)	22.0	32.0	32.0	32.0	16.0
Total Split (%)	31.4%	45.7%	45.7%	45.7%	23%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	Max	None
Act Effct Green (s)	10.0		25.2	25.2	
Actuated g/C Ratio	0.21		0.53	0.53	
v/c Ratio	0.21		0.32	0.42	
Control Delay (s/veh)	17.6		7.7	8.6	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	17.6		7.7	8.6	
LOS	B		A	A	
Approach Delay (s/veh)	17.6		7.7	8.6	
Approach LOS	B		A	A	
Queue Length 50th (m)	4.9		11.2	16.2	
Queue Length 95th (m)	12.9		21.9	30.5	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	535		841	873	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.13		0.32	0.42	

Intersection Summary
Cycle Length: 70
Actuated Cycle Length: 47.7
Natural Cycle: 70
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.42
Intersection Signal Delay (s/veh): 9.2 Intersection LOS: A
Intersection Capacity Utilization 51.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Queen Elizabeth Drive & Fifth

Intersection						
Int Delay, s/veh	5.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	182	138	608	351	25
Future Vol, veh/h	1	182	138	608	351	25
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	1	202	153	676	390	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1226	582	596	0	-	0
Stage 1	582	-	-	-	-	-
Stage 2	644	-	-	-	-	-
Critical Hdwy	6.675	6.275	4.175	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	2.2475	-	-	-
Pot Cap-1 Maneuver	180	505	961	-	-	-
Stage 1	550	-	-	-	-	-
Stage 2	479	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	90	410	780	-	-	-
Mov Cap-2 Maneuver	90	-	-	-	-	-
Stage 1	339	-	-	-	-	-
Stage 2	389	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	22.04	3.44	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	634	-	410	-	-
HCM Lane V/C Ratio	0.197	-	0.493	-	-
HCM Ctrl Dly (s/v)	10.7	1.8	22	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %ile Q(veh)	0.7	-	2.7	-	-

Intersection	
Int Delay, s/veh	0,3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	26	0	735	523	0
Future Vol, veh/h	0	26	0	735	523	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	0	29	0	817	581	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	581	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6,275	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3,3475	-	-	-	-
Pot Cap-1 Maneuver	0	506	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	506	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	12,55	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	506	-
HCM Lane V/C Ratio	-	0,057	-
HCM Ctrl Dly (s/v)	-	12,6	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0,2	-

Intersection	
Int Delay, s/veh	1,6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	23	63	241	269	68
Future Vol, veh/h	19	23	63	241	269	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	21	26	70	268	299	76

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	744	337	374	0	-	0
Stage 1	337	-	-	-	-	-
Stage 2	408	-	-	-	-	-
Critical Hdwy	6,4	6,2	4,1	-	-	-
Critical Hdwy Stg 1	5,4	-	-	-	-	-
Critical Hdwy Stg 2	5,4	-	-	-	-	-
Follow-up Hdwy	3,5	3,3	2,2	-	-	-
Pot Cap-1 Maneuver	385	710	1195	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	676	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	358	710	1195	-	-	-
Mov Cap-2 Maneuver	358	-	-	-	-	-
Stage 1	678	-	-	-	-	-
Stage 2	676	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	13,09	1,7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	373	-	492	-	-
HCM Lane V/C Ratio	0,059	-	0,095	-	-
HCM Ctrl Dly (s/v)	8,2	0	13,1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0,2	-	0,3	-	-

Intersection	
Int Delay, s/veh	0,4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	33	527	7	0	398
Future Vol, veh/h	0	33	527	7	0	398
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	15	6	0	0	5
Mvmt Flow	0	37	586	8	0	442

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	397	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7,2	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3,45	-	-	-	-
Pot Cap-1 Maneuver	0	567	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	507	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12,65	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	507	-
HCM Lane V/C Ratio	-	-	0,072	-
HCM Ctrl Dly (s/v)	-	-	12,6	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0,2	-

Intersection	
Int Delay, s/veh	1,3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	104	60	5	65	18	5
Future Vol, veh/h	104	60	5	65	18	5
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	116	67	6	72	20	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	282	0	432	349
Stage 1	-	-	-	-	249	-
Stage 2	-	-	-	-	183	-
Critical Hdwy	-	-	4,12	-	6,42	6,22
Critical Hdwy Stg 1	-	-	-	-	5,42	-
Critical Hdwy Stg 2	-	-	-	-	5,42	-
Follow-up Hdwy	-	-	2,218	-	3,518	3,318
Pot Cap-1 Maneuver	-	-	1280	-	580	694
Stage 1	-	-	-	-	793	-
Stage 2	-	-	-	-	848	-
Platoon blocked, %	-	-			-	
Mov Cap-1 Maneuver	-	-	1145	-	462	555
Mov Cap-2 Maneuver	-	-	-	-	462	-
Stage 1	-	-	-	-	709	-
Stage 2	-	-	-	-	755	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0,58	12,93
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	479	-	-	129	-
HCM Lane V/C Ratio	0,053	-	-	0,005	-
HCM Ctrl Dly (s/v)	12,9	-	-	8,2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0,2	-	-	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	37	116	15	5	4
Future Vol, veh/h	5	37	116	15	5	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	41	129	17	6	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	146	0	-	0	189	137
Stage 1	-	-	-	-	137	-
Stage 2	-	-	-	-	52	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1437	-	-	-	800	911
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	970	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1437	-	-	-	796	911
Mov Cap-2 Maneuver	-	-	-	-	796	-
Stage 1	-	-	-	-	886	-
Stage 2	-	-	-	-	970	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.89	0	9.32
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	214	-	-	-	844
HCM Lane V/C Ratio	0.004	-	-	-	0.012
HCM Ctrl Dly (s/v)	7.5	0	-	-	9.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

EXISTING – WEEKDAY PM

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	118	136	5	5	5
Future Vol, veh/h	5	118	136	5	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	131	151	6	6	6
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	7.9	7.9	7.4
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	0%	50%
Vol Thru, %	96%	96%	0%
Vol Right, %	0%	4%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	123	141	10
LT Vol	5	0	5
Through Vol	118	136	0
RT Vol	0	5	5
Lane Flow Rate	137	157	11
Geometry Grp	1	1	1
Degree of Util (X)	0.155	0.176	0.013
Departure Headway (Hd)	4.078	4.034	4.361
Convergence, Y/N	Yes	Yes	Yes
Cap	877	887	826
Service Time	2.115	2.068	2.361
HCM Lane V/C Ratio	0.156	0.177	0.013
HCM Control Delay, s/veh	7.9	7.9	7.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.6	0

Intersection	
Intersection Delay, s/veh	6.9
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	3	5	5	5	5	5
Future Vol, veh/h	3	5	5	5	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	6	6	6	6	6
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	6.6	7.1	6.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	50%
Vol Thru, %	0%	38%	50%
Vol Right, %	50%	63%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	10	8	10
LT Vol	5	0	5
Through Vol	0	3	5
RT Vol	5	5	0
Lane Flow Rate	11	9	11
Geometry Grp	1	1	1
Degree of Util (X)	0.012	0.009	0.013
Departure Headway (Hd)	3.769	3.587	4.06
Convergence, Y/N	Yes	Yes	Yes
Cap	953	1002	886
Service Time	1.777	1.593	2.065
HCM Lane V/C Ratio	0.012	0.009	0.012
HCM Control Delay, s/veh	6.8	6.6	7.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0	0

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	3	5	136	5	5	118
Future Vol, veh/h	3	5	136	5	5	118
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	6	151	6	6	131
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7	8.5	7.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	4%	0%	96%
Vol Thru, %	0%	38%	4%
Vol Right, %	96%	63%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	123	8	141
LT Vol	5	0	136
Through Vol	0	3	5
RT Vol	118	5	0
Lane Flow Rate	137	9	157
Geometry Grp	1	1	1
Degree of Util (X)	0.143	0.01	0.19
Departure Headway (Hd)	3.754	3.919	4.373
Convergence, Y/N	Yes	Yes	Yes
Cap	961	898	816
Service Time	1.754	2.009	2.419
HCM Lane V/C Ratio	0.143	0.01	0.192
HCM Control Delay, s/veh	7.4	7	8.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0	0.7

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	72	38	0	0	0	100	39	26	29	0	0	90
Future Vol, veh/h	72	38	0	0	0	100	39	26	29	0	0	90
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	80	42	0	0	0	111	43	29	32	0	0	100
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.5	7.5	8.1	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	41%	65%	0%	0%
Vol Thru, %	28%	35%	0%	0%
Vol Right, %	31%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	110	100	90
LT Vol	39	72	0	0
Through Vol	26	38	0	0
RT Vol	29	0	100	90
Lane Flow Rate	104	122	111	100
Geometry Grp	1	1	1	1
Degree of Util (X)	0.129	0.157	0.121	0.11
Departure Headway (Hd)	4.451	4.62	3.919	3.968
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	807	777	916	904
Service Time	2.47	2.639	1.939	1.988
HCM Lane V/C Ratio	0.129	0.157	0.121	0.111
HCM Control Delay, s/veh	8.1	8.5	7.5	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.6	0.4	0.4

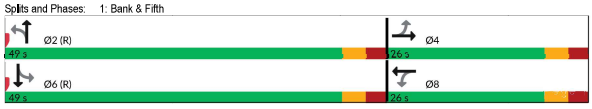
1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	45	52	58	37	16	435	28	559
Future Volume (vph)	45	52	58	37	16	435	28	559
Lane Group Flow (vph)	0	158	64	79	0	534	0	692
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		12.6	12.6	12.6		51.4		51.4
Actuated g/C Ratio		0.17	0.17	0.17		0.69		0.69
v/c Ratio		0.65	0.39	0.29		0.27		0.36
Control Delay (s/veh)		35.1	33.1	17.7		5.1		6.1
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		35.1	33.1	17.7		5.1		6.1
LOS		D	C	B		A		A
Approach Delay (s/veh)		35.1		24.6		5.1		6.1
Approach LOS		D		C		A		A
Queue Length 50th (m)		16.8	8.2	5.0		11.5		17.5
Queue Length 95th (m)		31.7	17.3	14.4		23.0		34.0
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		375	265	419		1951		1939
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.42	0.24	0.19		0.27		0.36

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay (s/veh): 10.5 — Intersection LOS: B
Intersection Capacity Utilization 65.8% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth



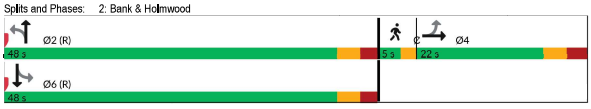
2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	17	25	481	27	536	
Future Volume (vph)	17	25	481	27	536	
Lane Group Flow (vph)	108	0	616	0	656	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	11.2		56.4		56.4	
Actuated g/C Ratio	0.15		0.75		0.75	
v/c Ratio	0.53		0.30		0.31	
Control Delay (s/veh)	38.3		4.7		3.1	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.3		4.7		3.1	
LOS	D		A		A	
Approach Delay (s/veh)	38.3		4.7		3.1	
Approach LOS	D		A		A	
Queue Length 50th (m)	14.3		13.6		11.7	
Queue Length 95th (m)	26.7		25.8		15.4	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	295		2041		2112	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.37		0.30		0.31	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay (s/veh): 6.6 — Intersection LOS: A
Intersection Capacity Utilization 62.9% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



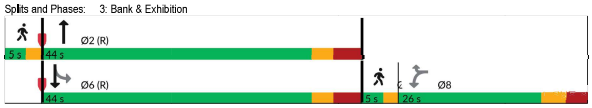
3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	118	61	453	113	476		
Future Volume (vph)	118	61	453	113	476		
Lane Group Flow (vph)	131	68	644	126	529		
Turn Type	Perm	Perm	NA	Perm	NA		
Protected Phases			2		6	1	7
Permitted Phases	8	8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (%)	32.5%	32.5%	55.0%	55.0%	55.0%	6%	6%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	12.7	12.7	58.7	58.7	58.7		
Actuated g/C Ratio	0.16	0.16	0.73	0.73	0.73		
v/c Ratio	0.54	0.29	0.31	0.28	0.23		
Control Delay (s/veh)	39.1	10.9	5.2	8.0	5.3		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	39.1	10.9	5.2	8.0	5.3		
LOS	D	B	A	A	A		
Approach Delay (s/veh)	29.4		5.2		5.8		
Approach LOS	C		A		A		
Queue Length 50th (m)	18.7	0.0	15.8	6.5	13.6		
Queue Length 95th (m)	32.7	9.7	29.0	18.3	24.5		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	372	326	2110	452	2328		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.35	0.21	0.31	0.28	0.23		

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay (s/veh): 8.7 — Intersection LOS: A
Intersection Capacity Utilization 60.0% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition



6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	52	17	665	722	
Future Volume (vph)	52	17	665	722	
Lane Group Flow (vph)	81	0	758	899	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.0		60.3	60.3	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.34		0.38	0.45	
Control Delay (s/veh)	31.1		8.5	7.6	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	31.1		8.5	7.6	
LOS	C		A	A	
Approach Delay (s/veh)	31.1		8.5	7.6	
Approach LOS	C		A	A	
Queue Length 50th (m)	9.6		25.1	32.6	
Queue Length 95th (m)	22.8		m36.8	43.7	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	280		1975	2006	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.29		0.38	0.45	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.45
Intersection Signal Delay (s/veh): 9.1 — Intersection LOS: A
Intersection Capacity Utilization 52.9% — ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø6	Ø7
Lane Configurations											
Traffic Volume (vph)	50	78	16	80	14	409	200	717			
Future Volume (vph)	50	78	16	80	14	409	200	717			
Lane Group Flow (vph)	0	175	0	374	0	492	0	1119			
Turn Type	Perm	NA	Perm	NA	Perm	NA	custom	NA			
Protected Phases		4		8		2	1	1 6	3	6	7
Permitted Phases	4		8		2		6				
Detector Phase	4	4	8	8	2	2	1	1 6			
Switch Phase											
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0		1.0	17.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0		5.0	60.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0		5.0	43.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%		6%	48%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		2.0	3.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9		0.0	3.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0					
Total Lost Time (s)		5.6		5.6		6.0					
Lead/Lag	Lag	Lag	Lag	Lag					Lead		Lead
Lead-Lag Optimize?			Yes	Yes							Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None		None	C-Max	None
Act Effct Green (s)		24.4		24.4		37.0		48.2			
Actuated g/C Ratio		0.27		0.27		0.41		0.54			
v/c Ratio		0.65		0.93		0.43		0.91			
Control Delay (s/veh)		42.2		53.1		20.2		23.4			
Queue Delay		0.0		0.0		0.0		0.0			
Total Delay (s/veh)		42.2		53.1		20.2		23.4			
LOS		D		D		C		C			
Approach Delay (s/veh)		42.2		53.1		20.2		23.4			
Approach LOS		D		D		C		C			
Queue Length 50th (m)		26.7		43.7		30.7		61.3			
Queue Length 95th (m)		#53.6		#98.3		43.9		#95.6			
Internal Link Dist (m)		75.1		136.0		63.1		79.0			
Turn Bay Length (m)											
Base Capacity (vph)		269		403		1146		1236			
Starvation Cap Reductn		0		0		0		0			
Spillback Cap Reductn		0		0		0		0			
Storage Cap Reductn		0		0		0		0			
Reduced v/c Ratio		0.65		0.93		0.43		0.91			

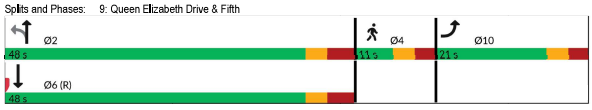
Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay (s/veh): 29.3 Intersection LOS: C
Intersection Capacity Utilization 92.7% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	34	37	189	502	
Future Volume (vph)	34	37	189	502	
Lane Group Flow (vph)	75	0	251	628	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	10.7		56.8	56.8	
Actuated g/C Ratio	0.13		0.71	0.71	
v/c Ratio	0.37		0.24	0.53	
Control Delay (s/veh)	36.6		5.0	7.7	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	36.6		5.0	7.7	
LOS	D		A	A	
Approach Delay (s/veh)	36.6		5.0	7.7	
Approach LOS	D		A	A	
Queue Length 50th (m)	10.7		10.6	35.2	
Queue Length 95th (m)	22.0		21.5	66.0	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	293		1028	1178	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.26		0.24	0.53	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay (s/veh): 9.2 Intersection LOS: A
Intersection Capacity Utilization 62.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 9: Queen Elizabeth Drive & Fifth



Intersection	
Int Delay, s/veh	10.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	226	207	540	545	48
Future Vol, veh/h	3	226	207	540	545	48
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	251	230	600	606	53

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1570	810	837	0	-	0
Stage 1	810	-	-	-	-	-
Stage 2	760	-	-	-	-	-
Critical Hdwy	6.63	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	111	379	795	-	-	-
Stage 1	436	-	-	-	-	-
Stage 2	423	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	42	308	645	-	-	-
Mov Cap-2 Maneuver	42	-	-	-	-	-
Stage 1	203	-	-	-	-	-
Stage 2	344	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	52.93	6.17	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	538	-	308	-	-
HCM Lane V/C Ratio	0.356	-	0.817	-	-
HCM Ctrl Dly (s/v)	13.6	3.3	52.9	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	1.6	-	6.8	-	-

Intersection	
Int Delay, s/veh	0,3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	23	0	755	780	2
Future Vol, veh/h	0	23	0	755	780	2
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	26	0	839	867	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	954	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6,23	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3,319	-	-	-	-
Pot Cap-1 Maneuver	0	313	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	-	284	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	18,9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	284	-	-
HCM Lane V/C Ratio	-	0,09	-	-
HCM Ctrl Dly (s/v)	-	18,9	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0,3	-	-

Intersection	
Int Delay, s/veh	2,6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	51	54	45	249	480	66
Future Vol, veh/h	51	54	45	249	480	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	57	60	50	277	533	73

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	947	570	607	0	-	0
Stage 1	570	-	-	-	-	-
Stage 2	377	-	-	-	-	-
Critical Hdwy	6,4	6,2	4,1	-	-	-
Critical Hdwy Stg 1	5,4	-	-	-	-	-
Critical Hdwy Stg 2	5,4	-	-	-	-	-
Follow-up Hdwy	3,5	3,3	2,2	-	-	-
Pot Cap-1 Maneuver	292	525	981	-	-	-
Stage 1	570	-	-	-	-	-
Stage 2	698	-	-	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	275	525	981	-	-	-
Mov Cap-2 Maneuver	275	-	-	-	-	-
Stage 1	535	-	-	-	-	-
Stage 2	698	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	19,49	1,36	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	276	-	364	-	-
HCM Lane V/C Ratio	0,051	-	0,321	-	-
HCM Ctrl Dly (s/v)	8,9	0	19,5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0,2	-	1,4	-	-

Intersection	
Int Delay, s/veh	0,8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	72	522	7	1	587
Future Vol, veh/h	5	72	522	7	1	587
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	3	2	0	0	3
Mvmt Flow	6	80	580	8	1	652

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1012	394	0	0	688	0
Stage 1	684	-	-	-	-	-
Stage 2	328	-	-	-	-	-
Critical Hdwy	6,8	6,96	-	-	4,1	-
Critical Hdwy Stg 1	5,8	-	-	-	-	-
Critical Hdwy Stg 2	5,8	-	-	-	-	-
Follow-up Hdwy	3,5	3,33	-	-	2,2	-
Pot Cap-1 Maneuver	239	602	-	-	916	-
Stage 1	468	-	-	-	-	-
Stage 2	708	-	-	-	-	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	213	539	-	-	819	-
Mov Cap-2 Maneuver	213	-	-	-	-	-
Stage 1	418	-	-	-	-	-
Stage 2	707	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12,85	0	0,02
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	539	819	-
HCM Lane V/C Ratio	-	-	0,149	0,001	-
HCM Ctrl Dly (s/v)	-	-	12,8	9,4	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0,5	0	-

Intersection	
Int Delay, s/veh	1,8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	118	122	5	136	43	5
Future Vol, veh/h	118	122	5	136	43	5
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	131	136	6	151	48	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	367	0	561	399
Stage 1	-	-	-	-	299	-
Stage 2	-	-	-	-	262	-
Critical Hdwy	-	-	4,12	-	6,42	6,22
Critical Hdwy Stg 1	-	-	-	-	5,42	-
Critical Hdwy Stg 2	-	-	-	-	5,42	-
Follow-up Hdwy	-	-	2,218	-	3,518	3,318
Pot Cap-1 Maneuver	-	-	1192	-	489	651
Stage 1	-	-	-	-	752	-
Stage 2	-	-	-	-	782	-
Platoon blocked, %	-	-			-	
Mov Cap-1 Maneuver	-	-	1066	-	389	520
Mov Cap-2 Maneuver	-	-	-	-	389	-
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	695	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0,3	15,41
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	399	-	-	64	-
HCM Lane V/C Ratio	0,134	-	-	0,005	-
HCM Ctrl Dly (s/v)	15,4	-	-	8,4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0,5	-	-	0	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	56	23	88	49	5
Future Vol, veh/h	5	56	23	88	49	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	62	26	98	54	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	123	0	-	0	148	74
Stage 1	-	-	-	-	74	-
Stage 2	-	-	-	-	73	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1464	-	-	-	844	987
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	950	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1464	-	-	-	841	987
Mov Cap-2 Maneuver	-	-	-	-	841	-
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	950	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.61	0	9.54
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	148	-	-	-	853
HCM Lane V/C Ratio	0.004	-	-	-	0.07
HCM Ctrl Dly (s/v)	7.5	0	-	-	9.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

EXISTING – SATURDAY

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	116	83	5	5	5
Future Vol, veh/h	5	116	83	5	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	129	92	6	6	6
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	7.8	7.5	7.3
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	0%	50%
Vol Thru, %	96%	94%	0%
Vol Right, %	0%	6%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	121	88	10
LT Vol	5	0	5
Through Vol	116	83	0
RT Vol	0	5	5
Lane Flow Rate	134	98	11
Geometry Grp	1	1	1
Degree of util (i)	0.151	0.109	0.013
Departure Headway (Hd)	4.035	4.02	4.131
Convergence, I/N	les	les	les
Cap	889	890	851
Service Time	2.059	2.052	2.23
HCM Lane V/C Ratio	0.151	0.11	0.013
HCM Control Delay, s/veh	7.8	7.5	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.4	0

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	15	5	5	70	5	5
Future Vol, veh/h	15	5	5	70	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	6	6	78	6	6
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7	7.4	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	7%
Vol Thru, %	0%	75%	93%
Vol Right, %	50%	25%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	10	20	75
LT Vol	5	0	5
Through Vol	0	15	70
RT Vol	5	5	0
Lane Flow Rate	11	22	83
Geometry Grp	1	1	1
Degree of util (i)	0.012	0.024	0.092
Departure Headway (Hd)	3.916	3.866	3.984
Convergence, I/N	les	les	les
Cap	909	927	903
Service Time	1.959	1.885	1.991
HCM Lane V/C Ratio	0.012	0.024	0.092
HCM Control Delay, s/veh	7	7	7.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0.1	0.3

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	15	5	83	5	101	20
Future Vol, veh/h	15	5	83	5	101	20
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	6	92	6	112	22
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.3	8.1	8.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	83%	0%	94%
Vol Thru, %	0%	75%	6%
Vol Right, %	17%	25%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	121	20	88
LT Vol	101	0	83
Through Vol	0	15	5
RT Vol	20	5	0
Lane Flow Rate	134	22	98
Geometry Grp	1	1	1
Degree of util (i)	0.157	0.026	0.119
Departure Headway (Hd)	4.21	4.2	4.378
Convergence, I/N	les	les	les
Cap	843	858	810
Service Time	2.283	2.2	2.456
HCM Lane V/C Ratio	0.159	0.026	0.121
HCM Control Delay, s/veh	8.1	7.3	8.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0.1	0.4

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	39	46	0	0	0	90	56	38	35	0	0	101
Future Vol, veh/h	39	46	0	0	0	90	56	38	35	0	0	101
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	51	0	0	0	100	62	42	39	0	0	112
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.4	7.5	8.4	7.5
HCM LOS	A	A	A	A

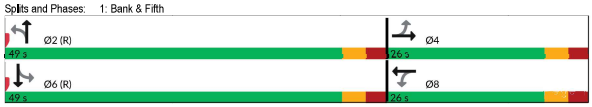
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	43%	46%	0%	0%
Vol Thru, %	29%	54%	0%	0%
Vol Right, %	27%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	129	85	90	101
LT Vol	56	39	0	0
Through Vol	38	46	0	0
RT Vol	35	0	90	101
Lane Flow Rate	143	94	100	112
Geometry Grp	1	1	1	1
Degree of util (i)	0.175	0.123	0.111	0.122
Departure Headway (Hd)	4.403	4.684	3.999	3.926
Convergence, I/N	les	les	les	les
Cap	816	767	897	913
Service Time	2.423	2.703	2.019	1.946
HCM Lane V/C Ratio	0.175	0.123	0.111	0.123
HCM Control Delay, s/veh	8.4	8.4	7.5	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.4	0.4	0.4

1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	44	39	65	43	20	461	19	510
Future Volume (vph)	44	39	65	43	20	461	19	510
Lane Group Flow (vph)	0	138	72	102	0	560	0	617
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		11.7	11.7	11.7		55.6		55.6
Actuated g/C Ratio		0.16	0.16	0.16		0.74		0.74
v/c Ratio		0.63	0.46	0.39		0.27		0.29
Control Delay (s/veh)		34.2	36.6	18.5		8.6		5.1
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		34.2	36.6	18.5		8.6		5.1
LOS		C	D	B		A		A
Approach Delay (s/veh)		34.2		26.0		8.6		5.1
Approach LOS		C		C		A		A
Queue Length 50th (m)		13.9	9.4	6.0		11.5		14.3
Queue Length 95th (m)		28.1	19.4	17.0		47.2		28.2
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		361	276	421		2097		2122
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.38	0.26	0.24		0.27		0.29

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.63
Intersection Signal Delay (s/veh): 11.6 Intersection LOS: B
Intersection Capacity Utilization 55.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth

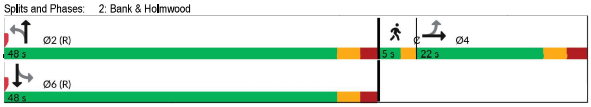


2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	9	27	469	29	522	
Future Volume (vph)	9	27	469	29	522	
Lane Group Flow (vph)	107	0	599	0	636	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	11.3		56.4		56.4	
Actuated g/C Ratio	0.15		0.75		0.75	
v/c Ratio	0.54		0.29		0.30	
Control Delay (s/veh)	38.5		3.1		5.5	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.5		3.1		5.5	
LOS	D		A		A	
Approach Delay (s/veh)	38.5		3.1		5.5	
Approach LOS	D		A		A	
Queue Length 50th (m)	14.2		3.2		24.0	
Queue Length 95th (m)	26.7		15.9		41.2	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	291		2040		2106	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.37		0.29		0.30	

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 74 (99%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay (s/veh): 7.0 Intersection LOS: A
Intersection Capacity Utilization 62.9% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	83	68	429	119	452		
Future Volume (vph)	83	68	429	119	452		
Lane Group Flow (vph)	92	76	604	132	502		
Turn Type	Perm	Perm	NA	Perm	NA		
Protected Phases			2		6	1	7
Permitted Phases	8	8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	39.0	39.0	39.0	5.0	5.0
Total Split (s)	26.0	26.0	39.0	39.0	39.0	5.0	5.0
Total Split (%)	34.7%	34.7%	52.0%	52.0%	52.0%	7%	7%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	3.5
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	11.1	11.1	55.4	55.4	55.4		
Actuated g/C Ratio	0.15	0.15	0.74	0.74	0.74		
v/c Ratio	0.41	0.33	0.28	0.28	0.21		
Control Delay (s/veh)	34.4	11.6	4.6	5.0	3.1		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	34.4	11.6	4.6	5.0	3.1		
LOS	C	B	A	A	A		
Approach Delay (s/veh)	24.1		4.6		3.5		
Approach LOS	C		A		A		
Queue Length 50th (m)	12.2	0.0	12.9	4.0	8.1		
Queue Length 95th (m)	23.9	10.3	23.4	8.1	11.0		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	399	351	2160	467	2342		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.23	0.22	0.28	0.28	0.21		

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 70 (93%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.41
Intersection Signal Delay (s/veh): 6.4 Intersection LOS: A
Intersection Capacity Utilization 58.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition

6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	35	15	647	681	
Future Volume (vph)	35	15	647	681	
Lane Group Flow (vph)	49	0	736	816	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	19.5	35.2	35.2	35.2	4.0
Total Split (s)	20.0	65.0	65.0	65.0	5.0
Total Split (%)	22.2%	72.2%	72.2%	72.2%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.0		60.3	60.3	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.20		0.37	0.40	
Control Delay (s/veh)	30.3		5.0	7.2	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	30.3		5.0	7.2	
LOS	C		A	A	
Approach Delay (s/veh)	30.3		5.0	7.2	
Approach LOS	C		A	A	
Queue Length 50th (m)	5.9		18.9	28.5	
Queue Length 95th (m)	15.8		24.5	38.4	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	248		1989	2051	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.20		0.37	0.40	

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 28 (31%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.40
Intersection Signal Delay (s/veh): 6.9 Intersection LOS: A
Intersection Capacity Utilization 50.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø6	Ø7
Lane Configurations											
Traffic Volume (vph)	40	36	19	55	28	464	80	516			
Future Volume (vph)	40	36	19	55	28	464	80	516			
Lane Group Flow (vph)	0	131	0	189	0	581	0	721			
Turn Type	Perm	NA	Perm	NA	Perm	NA	custom	NA			
Protected Phases		4		8		2	1	1 6	3	6	7
Permitted Phases	4		8		2		6				
Detector Phase	4	4	8	8	2	2	1	1 6			
Switch Phase											
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0		1.0	17.0	1.0
Minimum Split (s)	20.0	20.0	20.0	20.0	54.0	54.0	11.0		5.0	54.0	5.0
Total Split (s)	20.0	20.0	20.0	20.0	54.0	54.0	11.0		5.0	54.0	5.0
Total Split (%)	22.2%	22.2%	22.2%	22.2%	60.0%	60.0%	12.2%		6%	60%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		2.0	3.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9		0.0	3.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0					
Total Lost Time (s)		5.6		5.6		6.0					
Lead/Lag	Lag	Lag	Lag	Lag					Lead		Lead
Lead-Lag Optimize?			Yes	Yes							Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None		None	C-Max	None
Act Effct Green (s)		18.0		18.0		48.2		54.6			
Actuated g/C Ratio		0.20		0.20		0.54		0.61			
v/c Ratio		0.63		0.66		0.40		0.48			
Control Delay (s/veh)		46.7		33.4		13.2		6.3			
Queue Delay		0.0		0.0		0.0		0.0			
Total Delay (s/veh)		46.7		33.4		13.2		6.3			
LOS		D		C		B		A			
Approach Delay (s/veh)		46.7		33.4		13.2		6.3			
Approach LOS		D		C		B		A			
Queue Length 50th (m)		20.4		19.7		28.9		15.8			
Queue Length 95th (m)		39.1		42.1		40.7		19.5			
Internal Link Dist (m)		75.1		136.0		63.1		79.0			
Turn Bay Length (m)											
Base Capacity (vph)		211		290		1451		1504			
Starvation Cap Reductn		0		0		0		0			
Spillback Cap Reductn		0		0		0		0			
Storage Cap Reductn		0		0		0		0			
Reduced v/c Ratio		0.62		0.65		0.40		0.48			

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 33 (37%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay (s/veh): 15.2 Intersection LOS: B
Intersection Capacity Utilization 69.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	52	40	235	339	
Future Volume (vph)	52	40	235	339	
Lane Group Flow (vph)	90	0	305	433	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	11.1		56.4	56.4	
Actuated g/C Ratio	0.14		0.71	0.71	
v/c Ratio	0.42		0.29	0.37	
Control Delay (s/veh)	37.3		5.4	6.1	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	37.3		5.4	6.1	
LOS	D		A	A	
Approach Delay (s/veh)	37.3		5.4	6.1	
Approach LOS	D		A	A	
Queue Length 50th (m)	12.9		13.3	20.4	
Queue Length 95th (m)	25.2		27.5	40.5	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	297		1070	1168	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.30		0.29	0.37	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.42
Intersection Signal Delay (s/veh): 9.2 Intersection LOS: A
Intersection Capacity Utilization 61.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 9: Queen Elizabeth Drive & Fifth

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	172	113	539	490	53
Future Vol, veh/h	3	172	113	539	490	53
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	3	191	126	599	544	59

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1302	752	781	0	-	0
Stage 1	752	-	-	-	-	-
Stage 2	551	-	-	-	-	-
Critical Hdwy	6.645	6.245	4.145	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	2.2285	-	-	-
Pot Cap-1 Maneuver	163	407	829	-	-	-
Stage 1	462	-	-	-	-	-
Stage 2	540	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	83	331	673	-	-	-
Mov Cap-2 Maneuver	83	-	-	-	-	-
Stage 1	291	-	-	-	-	-
Stage 2	438	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	29.8	3.52	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	561	-	331	-	-
HCM Lane V/C Ratio	0.187	-	0.578	-	-
HCM Ctrl Dly (s/v)	11.6	1.8	29.8	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q(veh)	0.7	-	3.4	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	31	0	641	654	0
Future Vol, veh/h	1	31	0	641	654	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1	34	0	712	727	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1083	727	-	0	-	0
Stage 1	727	-	-	-	-	-
Stage 2	356	-	-	-	-	-
Critical Hdwy	6.645	6.245	-	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	-	-	-	-
Pot Cap-1 Maneuver	224	421	0	-	-	0
Stage 1	475	-	0	-	-	0
Stage 2	678	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	224	421	-	-	-	-
Mov Cap-2 Maneuver	224	-	-	-	-	-
Stage 1	475	-	-	-	-	-
Stage 2	678	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	14.31	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	421	-
HCM Lane V/C Ratio	-	0.082	-
HCM Ctrl Dly (s/v)	-	14.3	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.3	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	67	54	54	204	245	124
Future Vol, veh/h	67	54	54	204	245	124
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	74	60	60	227	272	138

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	688	341	410	0	-	0
Stage 1	341	-	-	-	-	-
Stage 2	347	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	415	706	1160	-	-	-
Stage 1	725	-	-	-	-	-
Stage 2	720	-	-	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	391	706	1160	-	-	-
Mov Cap-2 Maneuver	391	-	-	-	-	-
Stage 1	682	-	-	-	-	-
Stage 2	720	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	15.16	1.73	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	377	-	488	-	-
HCM Lane V/C Ratio	0.052	-	0.276	-	-
HCM Ctrl Dly (s/v)	8.3	0	15.2	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.1	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	69	479	18	2	565
Future Vol, veh/h	6	69	479	18	2	565
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	2	2
Mvmt Flow	7	77	532	20	2	628

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	961	376	0	0	652	0
Stage 1	642	-	-	-	-	-
Stage 2	318	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.14	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.22	-
Pot Cap-1 Maneuver	258	627	-	-	930	-
Stage 1	491	-	-	-	-	-
Stage 2	716	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	230	561	-	-	832	-
Mov Cap-2 Maneuver	230	-	-	-	-	-
Stage 1	439	-	-	-	-	-
Stage 2	714	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12.43	0	0.03
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	561	832	-
HCM Lane V/C Ratio	-	-	0.137	0.003	-
HCM Ctrl Dly (s/v)	-	-	12.4	9.3	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	116	117	5	83	68	5
Future Vol, veh/h	116	117	5	83	68	5
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	129	130	6	92	76	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	359	0	497	394
Stage 1	-	-	-	-	294	-
Stage 2	-	-	-	-	203	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1200	-	532	655
Stage 1	-	-	-	-	756	-
Stage 2	-	-	-	-	831	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1073	-	423	524
Mov Cap-2 Maneuver	-	-	-	-	423	-
Stage 1	-	-	-	-	676	-
Stage 2	-	-	-	-	739	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.48	15.34
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	429	-	-	102	-
HCM Lane V/C Ratio	0.189	-	-	0.005	-
HCM Ctrl Dly (s/v)	15.3	-	-	8.4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	30	72	106	91	5
Future Vol, veh/h	5	30	72	106	91	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	33	80	118	101	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	198	0	-	0	183	139
Stage 1	-	-	-	-	139	-
Stage 2	-	-	-	-	44	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1375	-	-	-	806	909
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	978	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1375	-	-	-	803	909
Mov Cap-2 Maneuver	-	-	-	-	803	-
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	978	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.09	0	10.13
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	257	-	-	-	808
HCM Lane V/C Ratio	0.004	-	-	-	0.132
HCM Ctrl Dly (s/v)	7.6	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.5

EXISTING – SUNDAY

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	141	100	5	5	5
Future Vol, veh/h	5	141	100	5	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	157	111	6	6	6
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	8	7.7	7.4
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	0%	50%
Vol Thru, %	97%	95%	0%
Vol Right, %	0%	5%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	146	105	10
LT Vol	5	0	5
Through Vol	141	100	0
RT Vol	0	5	5
Lane Flow Rate	162	117	11
Geometry Grp	1	1	1
Degree of Util (X)	0.182	0.131	0.013
Departure Headway (Hd)	4.048	4.046	4.328
Convergence, Y/N	Yes	Yes	Yes
Cap	886	883	832
Service Time	2.076	2.084	2.328
HCM Lane V/C Ratio	0.183	0.133	0.013
HCM Control Delay, s/veh	8	7.7	7.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0.5	0

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	14	5	5	158	5	5
Future Vol, veh/h	14	5	5	158	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	6	6	176	6	6
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.1	8	7.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	3%
Vol Thru, %	0%	74%	97%
Vol Right, %	50%	26%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	10	19	163
LT Vol	5	0	5
Through Vol	0	14	158
RT Vol	5	5	0
Lane Flow Rate	11	21	181
Geometry Grp	1	1	1
Degree of Util (X)	0.013	0.023	0.2
Departure Headway (Hd)	4.083	3.93	3.976
Convergence, Y/N	Yes	Yes	Yes
Cap	864	907	906
Service Time	2.166	1.969	1.985
HCM Lane V/C Ratio	0.013	0.023	0.2
HCM Control Delay, s/veh	7.2	7.1	8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0.1	0.7

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	14	5	54	3	122	24
Future Vol, veh/h	14	5	54	3	122	24
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	6	60	3	136	27
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.3	7.9	8.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	84%	0%	95%
Vol Thru, %	0%	74%	5%
Vol Right, %	16%	26%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	146	19	57
LT Vol	122	0	54
Through Vol	0	14	3
RT Vol	24	5	0
Lane Flow Rate	162	21	63
Geometry Grp	1	1	1
Degree of Util (X)	0.187	0.025	0.078
Departure Headway (Hd)	4.148	4.216	4.425
Convergence, Y/N	Yes	Yes	Yes
Cap	860	854	798
Service Time	2.202	2.216	2.516
HCM Lane V/C Ratio	0.188	0.025	0.079
HCM Control Delay, s/veh	8.2	7.3	7.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0.1	0.3

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	67	79	0	0	0	223	97	65	60	0	0	101
Future Vol, veh/h	67	79	0	0	0	223	97	65	60	0	0	101
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	74	88	0	0	0	248	108	72	67	0	0	112
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	9.9	9.4	10.6	8.5
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	44%	46%	0%	0%
Vol Thru, %	29%	54%	0%	0%
Vol Right, %	27%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	222	146	223	101
LT Vol	97	67	0	0
Through Vol	65	79	0	0
RT Vol	60	0	223	101
Lane Flow Rate	247	162	248	112
Geometry Grp	1	1	1	1
Degree of Util (X)	0.339	0.234	0.304	0.144
Departure Headway (Hd)	4.943	5.183	4.417	4.619
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	720	685	805	765
Service Time	3.028	3.272	2.496	2.717
HCM Lane V/C Ratio	0.343	0.236	0.308	0.146
HCM Control Delay, s/veh	10.6	9.9	9.4	8.5
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	1.5	0.9	1.3	0.5

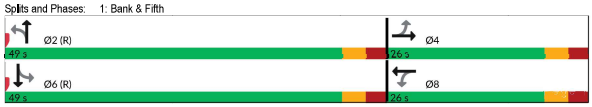
1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	52	36	118	64	15	468	22	486
Future Volume (vph)	52	36	118	64	15	468	22	486
Lane Group Flow (vph)	0	126	131	112	0	566	0	608
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		14.0	14.0	14.0		50.0		50.0
Actuated g/C Ratio		0.19	0.19	0.19		0.67		0.67
v/c Ratio		0.53	0.65	0.36		0.30		0.33
Control Delay (s/veh)		30.2	41.7	20.1		7.9		6.5
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		30.2	41.7	20.1		7.9		6.5
LOS		C	D	C		A		A
Approach Delay (s/veh)		30.2		31.8		7.9		6.5
Approach LOS		C		C		A		A
Queue Length 50th (m)		13.6	17.3	9.0		32.0		15.8
Queue Length 95th (m)		26.4	30.7	20.0		51.3		30.8
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		338	297	431		1903		1869
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.37	0.44	0.26		0.30		0.33

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 42 (56%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay (s/veh): 12.9 — Intersection LOS: B
Intersection Capacity Utilization 58.2% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth



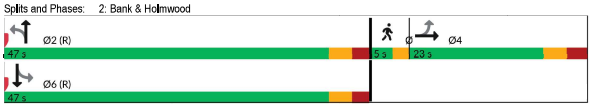
2: Bank & Holmwood

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations							
Traffic Volume (vph)	17	0	31	494	22	519	
Future Volume (vph)	17	0	31	494	22	519	
Lane Group Flow (vph)	107	2	0	670	0	639	
Turn Type	NA		Perm	NA	Perm	NA	
Protected Phases	4			2		6	3
Permitted Phases			2		6		
Detector Phase	4		2	2	6	6	
Switch Phase							
Minimum Initial (s)	4.4		10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	23.0		47.0	47.0	47.0	47.0	5.0
Total Split (s)	23.0		47.0	47.0	47.0	47.0	5.0
Total Split (%)	30.7%		62.7%	62.7%	62.7%	62.7%	7%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6		2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0			0.0		0.0	
Total Lost Time (s)	5.6			5.2		5.2	
Lead/Lag	Lag						Lead
Lead-Lag Optimize?							
Recall Mode	None		C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	11.2	0.0		56.4		56.4	
Actuated g/C Ratio	0.15	0.00		0.75		0.75	
v/c Ratio	0.53	0.01		0.34		0.30	
Control Delay (s/veh)	38.2	0.0		7.2		8.2	
Queue Delay	0.0	0.0		0.0		0.0	
Total Delay (s/veh)	38.2	0.0		7.2		8.2	
LOS	D	A		A		A	
Approach Delay (s/veh)	38.2			7.2		8.2	
Approach LOS	D			A		A	
Queue Length 50th (m)	14.2	0.0		30.2		19.5	
Queue Length 95th (m)	26.7	0.0		49.5		44.3	
Internal Link Dist (m)	39.8	116.8		31.5		195.6	
Turn Bay Length (m)							
Base Capacity (vph)	313	143		1966		2124	
Starvation Cap Reductn	0	0		0		0	
Spillback Cap Reductn	0	0		0		0	
Storage Cap Reductn	0	0		0		0	
Reduced v/c Ratio	0.34	0.01		0.34		0.30	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 16 (21%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay (s/veh): 10.0 — Intersection LOS: A
Intersection Capacity Utilization Err% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



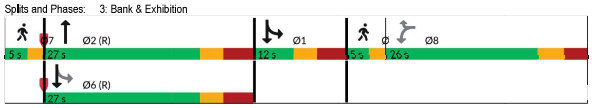
3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø3	Ø6	Ø7
Lane Configurations								
Traffic Volume (vph)	120	63	397	170	423			
Future Volume (vph)	120	63	397	170	423			
Lane Group Flow (vph)	133	70	570	189	470			
Turn Type	Perm	Perm	NA	custom	NA			
Protected Phases			2	1	1 6	3	6	7
Permitted Phases	8	8		6				
Detector Phase	8	8	2	1	1 6			
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	1.0		3.0	10.0	3.0
Minimum Split (s)	26.0	26.0	27.0	7.9		5.0	27.0	5.0
Total Split (s)	26.0	26.0	27.0	12.0		5.0	27.0	5.0
Total Split (%)	34.7%	34.7%	36.0%	16.0%		7%	36%	7%
Yellow Time (s)	3.3	3.3	3.0	3.0		2.0	3.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9		0.0	3.9	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0				
Total Lost Time (s)	6.3	6.3	6.9	6.9				
Lead/Lag	Lag	Lag				Lead		
Lead-Lag Optimize?						Yes		
Recall Mode	None	None	C-Max	None		None	C-Max	None
Act Effct Green (s)	12.5	12.5	40.6	45.7	54.0			
Actuated g/C Ratio	0.17	0.17	0.54	0.61	0.72			
v/c Ratio	0.53	0.29	0.36	0.41	0.21			
Control Delay (s/veh)	35.8	10.2	11.3	12.4	5.1			
Queue Delay	0.0	0.0	0.0	0.0	0.0			
Total Delay (s/veh)	35.8	10.2	11.3	12.4	5.1			
LOS	D	B	B	B	A			
Approach Delay (s/veh)	27.0		11.3		7.1			
Approach LOS	C		B		A			
Queue Length 50th (m)	17.6	0.0	21.9	7.5	10.4			
Queue Length 95th (m)	31.2	9.4	37.9	26.0	23.4			
Internal Link Dist (m)	30.6		33.7		44.8			
Turn Bay Length (m)				40.0				
Base Capacity (vph)	399	347	1584	462	2283			
Starvation Cap Reductn	0	0	0	0	0			
Spillback Cap Reductn	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0			
Reduced v/c Ratio	0.33	0.20	0.36	0.41	0.21			

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay (s/veh): 11.6 — Intersection LOS: B
Intersection Capacity Utilization 58.6% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition



6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	50	13	572	627	
Future Volume (vph)	50	13	572	627	
Lane Group Flow (vph)	76	0	650	753	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	4.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	None	C-Max	C-Max	C-Max	None
Act Effct Green (s)	10.8		72.6	72.6	
Actuated g/C Ratio	0.12		0.81	0.81	
v/c Ratio	0.40		0.27	0.31	
Control Delay (s/veh)	35.7		2.4	3.4	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	35.7		2.4	3.4	
LOS	D		A	A	
Approach Delay (s/veh)	35.7		2.4	3.4	
Approach LOS	D		A	A	
Queue Length 50th (m)	9.6		10.8	15.8	
Queue Length 95th (m)	21.9		14.3	26.2	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	281		2411	2463	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.27		0.27	0.31	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 87 (97%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.40
Intersection Signal Delay (s/veh): 4.6 — Intersection LOS: A
Intersection Capacity Utilization 47.0% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø6	Ø7
Lane Configurations											
Traffic Volume (vph)	41	32	15	49	18	448	113	482			
Future Volume (vph)	41	32	15	49	18	448	113	482			
Lane Group Flow (vph)	0	114	0	185	0	530	0	751			
Turn Type	Perm	NA	Perm	NA	Perm	NA	custom	NA			
Protected Phases		4		8		2	1	1 6	3	6	7
Permitted Phases	4		8		2		6				
Detector Phase	4	4	8	8	2	2	1	1 6			
Switch Phase											
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0		1.0	17.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0		5.0	43.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0		5.0	43.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%		6%	48%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		2.0	3.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9		0.0	3.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0					
Total Lost Time (s)		5.6		5.6		6.0					
Lead/Lag	Lag	Lag	Lag	Lag					Lead		Lead
Lead-Lag Optimize?			Yes	Yes							Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None		None	C-Max	None
Act Effct Green (s)		14.6		14.6		44.6		58.0			
Actuated g/C Ratio		0.16		0.16		0.50		0.64			
v/c Ratio		0.78		0.70		0.37		0.49			
Control Delay (s/veh)		67.8		32.8		16.5		4.7			
Queue Delay		0.0		0.0		0.0		0.0			
Total Delay (s/veh)		67.8		32.8		16.5		4.7			
LOS		E		C		B		A			
Approach Delay (s/veh)		67.8		32.8		16.5		4.7			
Approach LOS		E		C		B		A			
Queue Length 50th (m)		19.1		16.5		28.7		8.6			
Queue Length 95th (m)		34.5		35.5		47.5		11.3			
Internal Link Dist (m)		75.1		136.0		63.1		79.0			
Turn Bay Length (m)											
Base Capacity (vph)		199		333		1417		1547			
Starvation Cap Reductn		0		0		0		0			
Spillback Cap Reductn		0		0		0		0			
Storage Cap Reductn		0		0		0		0			
Reduced v/c Ratio		0.57		0.56		0.37		0.49			

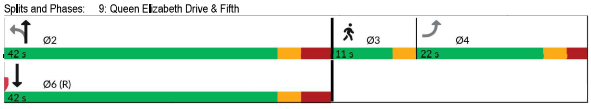
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 23 (26%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay (s/veh): 16.5	Intersection LOS: B
Intersection Capacity Utilization 72.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	12	198	12	11	
Future Volume (vph)	12	198	12	11	
Lane Group Flow (vph)	154	0	233	40	
Turn Type	Perm	Perm	NA	NA	
Protected Phases			2	6	3
Permitted Phases	4	2			
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	42.0	42.0	42.0	9.7
Total Split (s)	22.0	42.0	42.0	42.0	11.0
Total Split (%)	29.3%	56.0%	56.0%	56.0%	15%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?	Yes				Yes
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	13.5		49.0	49.0	
Actuated g/C Ratio	0.18		0.65	0.65	
v/c Ratio	0.59		0.30	0.04	
Control Delay (s/veh)	36.8		7.6	5.7	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	36.8		7.6	5.7	
LOS	D		A	A	
Approach Delay (s/veh)	36.8		7.6	5.7	
Approach LOS	D		A	A	
Queue Length 50th (m)	20.3		11.9	1.7	
Queue Length 95th (m)	34.8		27.6	5.7	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	327		782	997	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.47		0.30	0.04	

Intersection Summary	
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay (s/veh): 17.9	Intersection LOS: B
Intersection Capacity Utilization 38.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Queen Elizabeth Drive & Fifth



Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	149	105	527	473	59
Future Vol, veh/h	5	149	105	527	473	59
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	6	166	117	586	526	66

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1262	736	769	0	-	0
Stage 1	736	-	-	-	-	-
Stage 2	526	-	-	-	-	-
Critical Hdwy	6.645	6.245	4.145	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	2.2285	-	-	-
Pot Cap-1 Maneuver	173	416	838	-	-	-
Stage 1	470	-	-	-	-	-
Stage 2	556	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	91	337	680	-	-	-
Mov Cap-2 Maneuver	91	-	-	-	-	-
Stage 1	303	-	-	-	-	-
Stage 2	451	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	25.53	3.28	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	569	-	337	-	-
HCM Lane V/C Ratio	0.172	-	0.491	-	-
HCM Ctrl Dly (s/v)	11.4	1.7	25.5	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q(veh)	0.6	-	2.6	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	68	0	607	626	1
Future Vol, veh/h	2	68	0	607	626	1
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2	76	0	674	696	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1119	782	-	0	-	0
Stage 1	782	-	-	-	-	-
Stage 2	337	-	-	-	-	-
Critical Hdwy	6.645	6.245	-	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	-	-	-	-
Pot Cap-1 Maneuver	213	391	0	-	-	-
Stage 1	448	-	0	-	-	-
Stage 2	693	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	176	356	-	-	-	-
Mov Cap-2 Maneuver	176	-	-	-	-	-
Stage 1	407	-	-	-	-	-
Stage 2	630	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	17.83	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	356	-	-
HCM Lane V/C Ratio	-	0.212	-	-
HCM Ctrl Dly (s/v)	-	17.8	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.8	-	-

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	84	132	69	125	65	57
Future Vol, veh/h	84	132	69	125	65	57
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	93	147	77	139	72	63

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	396	104	136	0	-	0
Stage 1	104	-	-	-	-	-
Stage 2	292	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	613	956	1461	-	-	-
Stage 1	925	-	-	-	-	-
Stage 2	762	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	578	956	1461	-	-	-
Mov Cap-2 Maneuver	578	-	-	-	-	-
Stage 1	873	-	-	-	-	-
Stage 2	762	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	11.88	2.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	840	-	762	-	-
HCM Lane V/C Ratio	0.052	-	0.315	-	-
HCM Ctrl Dly (s/v)	7.6	0	11.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	1.4	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	156	452	19	0	578
Future Vol, veh/h	7	156	452	19	0	578
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	2	2
Mvmt Flow	8	173	502	21	0	642

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	934	362	0	0	-	-
Stage 1	613	-	-	-	-	-
Stage 2	321	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	268	641	-	-	0	-
Stage 1	509	-	-	-	0	-
Stage 2	714	-	-	-	0	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	240	573	-	-	-	-
Mov Cap-2 Maneuver	240	-	-	-	-	-
Stage 1	455	-	-	-	-	-
Stage 2	714	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	13.98	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	573	-
HCM Lane V/C Ratio	-	-	0.302	-
HCM Ctrl Dly (s/v)	-	-	14	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	1.3	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	141	145	5	100	83	5
Future Vol, veh/h	141	145	5	100	83	5
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	157	161	6	111	92	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	418	0	559	437
Stage 1	-	-	-	-	337	-
Stage 2	-	-	-	-	222	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1141	-	490	619
Stage 1	-	-	-	-	723	-
Stage 2	-	-	-	-	815	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1020	-	389	495
Mov Cap-2 Maneuver	-	-	-	-	389	-
Stage 1	-	-	-	-	646	-
Stage 2	-	-	-	-	724	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.41	17.12
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	394	-	-	86	-
HCM Lane V/C Ratio	0.248	-	-	0.005	-
HCM Ctrl Dly (s/v)	17.1	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1	-	-	0	-

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	50	52	74	166	5
Future Vol, veh/h	5	50	52	74	166	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	56	58	82	184	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	140	0	-	0	166	99
Stage 1	-	-	-	-	99	-
Stage 2	-	-	-	-	67	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1443	-	-	-	825	957
Stage 1	-	-	-	-	925	-
Stage 2	-	-	-	-	956	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1443	-	-	-	822	957
Mov Cap-2 Maneuver	-	-	-	-	822	-
Stage 1	-	-	-	-	921	-
Stage 2	-	-	-	-	956	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.68	0	10.66
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	164	-	-	-	825
HCM Lane V/C Ratio	0.004	-	-	-	0.23
HCM Ctrl Dly (s/v)	7.5	0	-	-	10.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.9

EXISTING – MINOR EVENT INGRESS

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	222	117	5	5	5
Future Vol, veh/h	5	222	117	5	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	247	130	6	6	6
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	8.7	7.9	7.6
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	0%	50%
Vol Thru, %	98%	96%	0%
Vol Right, %	0%	4%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	227	122	10
LT Vol	5	0	5
Through Vol	222	117	0
RT Vol	0	5	5
Lane Flow Rate	252	136	11
Geometry Grp	1	1	1
Degree of Util (X)	0.284	0.155	0.014
Departure Headway (Hd)	4.059	4.117	4.56
Convergence, Y/N	Yes	Yes	Yes
Cap	883	865	790
Service Time	2.096	2.175	2.56
HCM Lane V/C Ratio	0.285	0.157	0.014
HCM Control Delay, s/veh	8.7	7.9	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.2	0.5	0

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	16	5	5	48	5	5
Future Vol, veh/h	16	5	5	48	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	6	6	53	6	6
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7	7.3	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	9%
Vol Thru, %	0%	76%	91%
Vol Right, %	50%	24%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	10	21	53
LT Vol	5	0	5
Through Vol	0	16	48
RT Vol	5	5	0
Lane Flow Rate	11	23	59
Geometry Grp	1	1	1
Degree of Util (X)	0.012	0.025	0.065
Departure Headway (Hd)	3.876	3.854	3.99
Convergence, Y/N	Yes	Yes	Yes
Cap	921	931	902
Service Time	1.908	1.869	1.997
HCM Lane V/C Ratio	0.012	0.025	0.065
HCM Control Delay, s/veh	7	7	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0.1	0.2

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	16	5	117	44	211	16
Future Vol, veh/h	16	5	117	44	211	16
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	6	130	49	234	18
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.8	9.2	9.7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	93%	0%	73%
Vol Thru, %	0%	76%	27%
Vol Right, %	7%	24%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	227	21	161
LT Vol	211	0	117
Through Vol	0	16	44
RT Vol	16	5	0
Lane Flow Rate	252	23	179
Geometry Grp	1	1	1
Degree of Util (X)	0.32	0.03	0.234
Departure Headway (Hd)	4.57	4.62	4.719
Convergence, Y/N	Yes	Yes	Yes
Cap	789	775	762
Service Time	2.589	2.648	2.741
HCM Lane V/C Ratio	0.319	0.03	0.235
HCM Control Delay, s/veh	9.7	7.8	9.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.4	0.1	0.9

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	50	0	0	0	135	61	40	37	0	0	80
Future Vol, veh/h	59	50	0	0	0	135	61	40	37	0	0	80
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	66	56	0	0	0	150	68	44	41	0	0	89
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.7	7.9	8.7	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	44%	54%	0%	0%
Vol Thru, %	29%	46%	0%	0%
Vol Right, %	27%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	138	109	135	80
LT Vol	61	59	0	0
Through Vol	40	50	0	0
RT Vol	37	0	135	80
Lane Flow Rate	153	121	150	89
Geometry Grp	1	1	1	1
Degree of Util (X)	0.194	0.16	0.168	0.102
Departure Headway (Hd)	4.556	4.743	4.024	4.114
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	787	756	891	869
Service Time	2.588	2.774	2.054	2.148
HCM Lane V/C Ratio	0.194	0.16	0.168	0.102
HCM Control Delay, s/veh	8.7	8.7	7.9	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.6	0.6	0.3

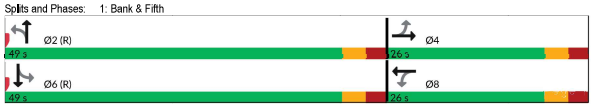
1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	50	56	65	45	16	482	25	557
Future Volume (vph)	50	56	65	45	16	482	25	557
Lane Group Flow (vph)	0	154	72	84	0	585	0	673
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		13.1	13.1	13.1		50.9		50.9
Actuated g/C Ratio		0.17	0.17	0.17		0.68		0.68
v/c Ratio		0.65	0.42	0.30		0.30		0.35
Control Delay (s/veh)		36.9	33.3	19.0		5.4		6.3
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		36.9	33.3	19.0		5.4		6.3
LOS		D	C	B		A		A
Approach Delay (s/veh)		36.9		25.6		5.4		6.3
Approach LOS		D		C		A		A
Queue Length 50th (m)		17.7	9.2	6.1		13.3		17.4
Queue Length 95th (m)		32.3	18.8	15.6		25.1		33.6
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		361	270	423		1931		1925
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.43	0.27	0.20		0.30		0.35

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay (s/veh): 10.9 — Intersection LOS: B
Intersection Capacity Utilization 61.9% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth



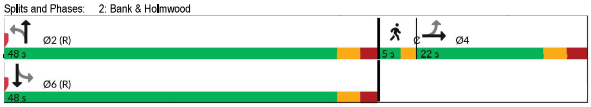
2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	25	50	488	24	543	
Future Volume (vph)	25	50	488	24	543	
Lane Group Flow (vph)	114	0	682	0	667	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	11.4		56.3		56.3	
Actuated g/C Ratio	0.15		0.75		0.75	
v/c Ratio	0.54		0.37		0.32	
Control Delay (s/veh)	38.1		5.2		3.0	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.1		5.2		3.0	
LOS	D		A		A	
Approach Delay (s/veh)	38.1		5.2		3.0	
Approach LOS	D		A		A	
Queue Length 50th (m)	15.1		15.7		11.6	
Queue Length 95th (m)	27.8		30.5		15.2	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	303		1858		2108	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.38		0.37		0.32	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay (s/veh): 6.8 — Intersection LOS: A
Intersection Capacity Utilization 66.2% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



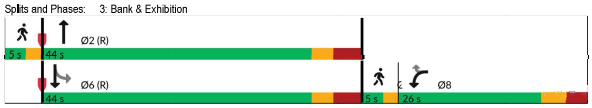
3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	118	86	415	165	411		
Future Volume (vph)	118	86	415	165	411		
Lane Group Flow (vph)	131	96	688	183	457		
Turn Type	Prot	Perm	NA	Perm	NA		
Protected Phases	8		2		6	1	7
Permitted Phases		8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (%)	32.5%	32.5%	55.0%	55.0%	55.0%	6%	6%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	12.3	12.3	54.5	54.5	54.5		
Actuated g/C Ratio	0.15	0.15	0.68	0.68	0.68		
v/c Ratio	0.52	0.38	0.35	0.45	0.21		
Control Delay (s/veh)	38.3	11.3	5.1	10.9	5.4		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	38.3	11.3	5.1	10.9	5.4		
LOS	D	B	A	B	A		
Approach Delay (s/veh)	26.9		5.1		7.0		
Approach LOS	C		A		A		
Queue Length 50th (m)	18.7	0.0	14.4	10.5	11.2		
Queue Length 95th (m)	32.8	11.7	26.7	29.6	20.3		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	402	344	1914	408	2160		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.33	0.28	0.35	0.45	0.21		

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.52
Intersection Signal Delay (s/veh): 9.1 — Intersection LOS: A
Intersection Capacity Utilization 62.8% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition



6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	70	18	675	499	
Future Volume (vph)	70	18	675	499	
Lane Group Flow (vph)	86	0	770	635	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.0		60.3	60.3	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.35		0.39	0.32	
Control Delay (s/veh)	36.4		5.3	6.4	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	36.4		5.3	6.4	
LOS	D		A	A	
Approach Delay (s/veh)	36.4		5.3	6.4	
Approach LOS	D		A	A	
Queue Length 50th (m)	12.6		19.7	19.8	
Queue Length 95th (m)	26.1		23.4	28.0	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	288		1987	1980	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.30		0.39	0.32	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.39
Intersection Signal Delay (s/veh): 7.5 — Intersection LOS: A
Intersection Capacity Utilization 53.9% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	55	50	17	57	19	467	103	528		
Future Volume (vph)	55	50	17	57	19	467	103	528		
Lane Group Flow (vph)	0	146	0	258	0	559	0	772		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	60.0	5.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	43.0	5.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%	47.8%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		20.1		20.1		58.3		58.3		
Actuated g/C Ratio		0.22		0.22		0.65		0.65		
v/c Ratio		0.73		0.76		0.30		0.54		
Control Delay (s/veh)		52.2		32.6		8.1		7.5		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		52.2		32.6		8.1		7.5		
LOS		D		C		A		A		
Approach Delay (s/veh)		52.2		32.6		8.1		7.5		
Approach LOS		D		C		A		A		
Queue Length 50th (m)		22.9		23.5		20.9		37.0		
Queue Length 95th (m)		#42.6		49.7		32.2		57.3		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		219		361		1839		1440		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.67		0.71		0.30		0.54		

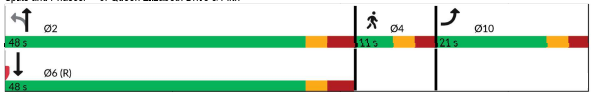
Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay (s/veh): 15.2		Intersection LOS: B	
Intersection Capacity Utilization 78.7%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	51	51	215	519	
Future Volume (vph)	51	51	215	519	
Lane Group Flow (vph)	97	0	296	670	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	11.4		56.1	56.1	
Actuated g/C Ratio	0.14		0.70	0.70	
v/c Ratio	0.44		0.31	0.58	
Control Delay (s/veh)	37.6		5.9	8.8	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	37.6		5.9	8.8	
LOS	D		A	A	
Approach Delay (s/veh)	37.6		5.9	8.8	
Approach LOS	D		A	A	
Queue Length 50th (m)	13.9		13.4	40.1	
Queue Length 95th (m)	26.4		28.5	79.6	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	295		961	1160	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.33		0.31	0.58	

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay (s/veh): 10.6		Intersection LOS: B	
Intersection Capacity Utilization 73.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 9: Queen Elizabeth Drive & Fifth



Intersection	
Int Delay, s/veh	10.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	260	139	638	466	53
Future Vol, veh/h	5	260	139	638	466	53
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	6	289	154	709	518	59

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1389	725	755	0	-	0
Stage 1	725	-	-	-	-	-
Stage 2	663	-	-	-	-	-
Critical Hdwy	6.645	6.245	4.145	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	2.2285	-	-	-
Pot Cap-1 Maneuver	144	422	848	-	-	-
Stage 1	476	-	-	-	-	-
Stage 2	473	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	68	342	688	-	-	-
Mov Cap-2 Maneuver	68	-	-	-	-	-
Stage 1	278	-	-	-	-	-
Stage 2	384	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	52.66	3.98	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	553	-	342	-	-
HCM Lane V/C Ratio	0.224	-	0.844	-	-
HCM Ctrl Dly (s/v)	11.7	2.3	52.7	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.9	-	7.6	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	36	0	762	734	0
Future Vol, veh/h	4	36	0	762	734	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	4	40	0	847	816	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1239	816	-	0	-	0
Stage 1	816	-	-	-	-	-
Stage 2	423	-	-	-	-	-
Critical Hdwy	6.645	6.245	-	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	-	-	-	-
Pot Cap-1 Maneuver	179	374	0	-	-	0
Stage 1	432	-	0	-	-	0
Stage 2	627	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	179	374	-	-	-	-
Mov Cap-2 Maneuver	179	-	-	-	-	-
Stage 1	432	-	-	-	-	-
Stage 2	627	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	15.77	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	374	-
HCM Lane V/C Ratio	-	0.107	-
HCM Ctrl Dly (s/v)	-	15.8	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	0.4	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	58	52	110	211	316	245
Future Vol, veh/h	58	52	110	211	316	245
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	64	58	122	234	351	272

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	966	487	623	0	-	0
Stage 1	487	-	-	-	-	-
Stage 2	479	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	285	584	968	-	-	-
Stage 1	622	-	-	-	-	-
Stage 2	627	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	243	584	968	-	-	-
Mov Cap-2 Maneuver	243	-	-	-	-	-
Stage 1	531	-	-	-	-	-
Stage 2	627	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	21.71	3.17	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	617	-	336	-	-
HCM Lane V/C Ratio	0.126	-	0.364	-	-
HCM Ctrl Dly (s/v)	9.3	0	21.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.4	-	1.6	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	53	501	19	2	560
Future Vol, veh/h	0	53	501	19	2	560
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	2	2
Mvmt Flow	0	59	557	21	2	622

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	389	0	0	678	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	2.22	-
Pot Cap-1 Maneuver	0	615	-	-	910	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	550	-	-	814	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12.32	0	0.03
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	550	814	-
HCM Lane V/C Ratio	-	-	0.107	0.003	-
HCM Ctrl Dly (s/v)	-	-	12.3	9.4	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	222	129	5	117	87	5
Future Vol, veh/h	222	129	5	117	87	5
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	247	143	6	130	97	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	490	0	659	518
Stage 1	-	-	-	-	418	-
Stage 2	-	-	-	-	241	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1073	-	428	557
Stage 1	-	-	-	-	664	-
Stage 2	-	-	-	-	799	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	960	-	340	446
Mov Cap-2 Maneuver	-	-	-	-	340	-
Stage 1	-	-	-	-	594	-
Stage 2	-	-	-	-	710	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.36	19.79
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	345	-	-	74	-
HCM Lane V/C Ratio	0.297	-	-	0.006	-
HCM Ctrl Dly (s/v)	19.8	-	-	8.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.2	-	-	0	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	27	156	199	83	5
Future Vol, veh/h	5	27	156	199	83	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	30	173	221	92	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	394	0	-	0	325	284
Stage 1	-	-	-	-	284	-
Stage 2	-	-	-	-	41	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1164	-	-	-	669	755
Stage 1	-	-	-	-	764	-
Stage 2	-	-	-	-	981	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1164	-	-	-	666	755
Mov Cap-2 Maneuver	-	-	-	-	666	-
Stage 1	-	-	-	-	761	-
Stage 2	-	-	-	-	981	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.27	0	11.29
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	281	-	-	-	670
HCM Lane V/C Ratio	0.005	-	-	-	0.146
HCM Ctrl Dly (s/v)	8.1	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.5

EXISTING – MINOR EVENT EGRESS

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	190	275	5	5	5
Future Vol, veh/h	5	190	275	5	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	211	306	6	6	6
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	8.7	9.4	7.9
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	0%	50%
Vol Thru, %	97%	98%	0%
Vol Right, %	0%	2%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	195	280	10
LT Vol	5	0	5
Through Vol	190	275	0
RT Vol	0	5	5
Lane Flow Rate	217	311	11
Geometry Grp	1	1	1
Degree of Util (X)	0.252	0.355	0.015
Departure Headway (Hd)	4.191	4.105	4.857
Convergence, Y/N	Yes	Yes	Yes
Cap	847	868	741
Service Time	2.267	2.164	2.857
HCM Lane V/C Ratio	0.256	0.358	0.015
HCM Control Delay, s/veh	8.7	9.4	7.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1	1.6	0

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	24	5	5	144	5	5
Future Vol, veh/h	24	5	5	144	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	6	6	160	6	6
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.2	7.9	7.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	3%
Vol Thru, %	0%	83%	97%
Vol Right, %	50%	17%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	10	29	149
LT Vol	5	0	5
Through Vol	0	24	144
RT Vol	5	5	0
Lane Flow Rate	11	32	166
Geometry Grp	1	1	1
Degree of Util (X)	0.013	0.036	0.183
Departure Headway (Hd)	4.074	3.973	3.985
Convergence, Y/N	Yes	Yes	Yes
Cap	866	898	904
Service Time	2.157	2.009	1.997
HCM Lane V/C Ratio	0.013	0.036	0.184
HCM Control Delay, s/veh	7.2	7.2	7.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0.1	0.7

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	24	5	73	5	129	66
Future Vol, veh/h	24	5	73	5	129	66
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	6	81	6	143	73
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.6	8.2	8.5
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	66%	0%	94%
Vol Thru, %	0%	83%	6%
Vol Right, %	34%	17%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	195	29	78
LT Vol	129	0	73
Through Vol	0	24	5
RT Vol	66	5	0
Lane Flow Rate	217	32	87
Geometry Grp	1	1	1
Degree of Util (X)	0.245	0.04	0.112
Departure Headway (Hd)	4.069	4.415	4.641
Convergence, Y/N	Yes	Yes	Yes
Cap	869	815	777
Service Time	2.157	2.418	2.643
HCM Lane V/C Ratio	0.25	0.039	0.112
HCM Control Delay, s/veh	8.5	7.8	8.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1	0.1	0.4

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	43	0	0	0	64	10	10	49	0	0	94
Future Vol, veh/h	10	43	0	0	0	64	10	10	49	0	0	94
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	48	0	0	0	71	11	11	54	0	0	104
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.7	7.1	7.3	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	19%	0%	0%
Vol Thru, %	14%	81%	0%	0%
Vol Right, %	71%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	69	53	64	94
LT Vol	10	10	0	0
Through Vol	10	43	0	0
RT Vol	49	0	64	94
Lane Flow Rate	77	59	71	104
Geometry Grp	1	1	1	1
Degree of Util (X)	0.082	0.071	0.073	0.105
Departure Headway (Hd)	3.841	4.34	3.691	3.616
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	922	819	959	979
Service Time	1.909	2.4	1.758	1.685
HCM Lane V/C Ratio	0.084	0.072	0.074	0.106
HCM Control Delay, s/veh	7.3	7.7	7.1	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.2	0.2	0.4

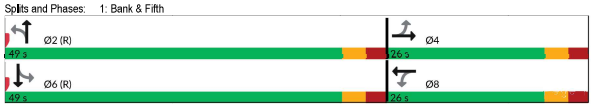
1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	41	9	47	24	16	457	20	344
Future Volume (vph)	41	9	47	24	16	457	20	344
Lane Group Flow (vph)	0	84	52	61	0	538	0	427
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		9.4	9.4	9.4		57.9		57.9
Actuated g/C Ratio		0.13	0.13	0.13		0.77		0.77
v/c Ratio		0.51	0.34	0.30		0.24		0.20
Control Delay (s/veh)		31.9	34.4	19.5		3.5		3.6
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		31.9	34.4	19.5		3.5		3.6
LOS		C	C	B		A		A
Approach Delay (s/veh)		31.9		26.4		3.5		3.6
Approach LOS		C		C		A		A
Queue Length 50th (m)		7.5	6.9	3.5		9.3		7.5
Queue Length 95th (m)		18.8	15.5	12.6		18.3		15.6
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		330	341	402		2251		2168
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.25	0.15	0.15		0.24		0.20

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.51
Intersection Signal Delay (s/veh): 7.8 — Intersection LOS: A
Intersection Capacity Utilization 51.9% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth



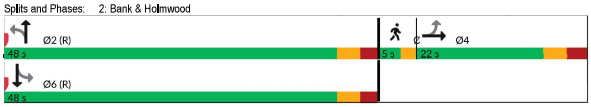
2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	7	52	445	22	325	
Future Volume (vph)	7	52	445	22	325	
Lane Group Flow (vph)	84	0	579	0	424	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	9.9		57.5		57.5	
Actuated g/C Ratio	0.13		0.77		0.77	
v/c Ratio	0.47		0.29		0.20	
Control Delay (s/veh)	37.7		4.2		2.7	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	37.7		4.2		2.7	
LOS	D		A		A	
Approach Delay (s/veh)	37.7		4.2		2.7	
Approach LOS	D		A		A	
Queue Length 50th (m)	11.2		11.8		7.7	
Queue Length 95th (m)	22.3		22.6		11.2	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	296		2029		2106	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.28		0.29		0.20	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.47
Intersection Signal Delay (s/veh): 6.2 — Intersection LOS: A
Intersection Capacity Utilization 57.2% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



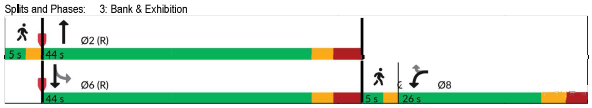
3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	187	213	187	111	253		
Future Volume (vph)	187	213	187	111	253		
Lane Group Flow (vph)	208	237	297	123	281		
Turn Type	Prot	Perm	NA	Perm	NA		
Protected Phases	8		2		6	1	7
Permitted Phases		8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (%)	32.5%	32.5%	55.0%	55.0%	55.0%	6%	6%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	15.4	15.4	51.4	51.4	51.4		
Actuated g/C Ratio	0.19	0.19	0.64	0.64	0.64		
v/c Ratio	0.66	0.59	0.16	0.25	0.14		
Control Delay (s/veh)	39.7	10.2	4.8	8.9	6.5		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	39.7	10.2	4.8	8.9	6.5		
LOS	D	B	A	A	A		
Approach Delay (s/veh)	24.0		4.8		7.2		
Approach LOS	C		A		A		
Queue Length 50th (m)	29.5	0.0	5.6	7.0	7.7		
Queue Length 95th (m)	46.3	17.1	12.5	18.5	15.1		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	407	453	1810	492	2038		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.51	0.52	0.16	0.25	0.14		

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay (s/veh): 13.1 — Intersection LOS: B
Intersection Capacity Utilization 57.6% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition



6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	4	1	155	191	
Future Volume (vph)	4	1	155	191	
Lane Group Flow (vph)	7	0	173	219	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.0		60.3	60.3	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.03		0.08	0.10	
Control Delay (s/veh)	27.2		4.6	5.2	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	27.2		4.6	5.2	
LOS	C		A	A	
Approach Delay (s/veh)	27.2		4.6	5.2	
Approach LOS	C		A	A	
Queue Length 50th (m)	0.6		4.2	6.0	
Queue Length 95th (m)	4.4		6.6	9.6	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	253		2043	2103	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.03		0.08	0.10	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.10
Intersection Signal Delay (s/veh): 5.3 — Intersection LOS: A
Intersection Capacity Utilization 45.6% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	28	7	5	12	12	236	33	411		
Future Volume (vph)	28	7	5	12	12	236	33	411		
Lane Group Flow (vph)	0	60	0	55	0	281	0	541		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	60.0	5.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	43.0	5.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%	47.8%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		10.8		10.6		71.2		71.2		
Actuated g/C Ratio		0.12		0.12		0.79		0.79		
v/c Ratio		0.51		0.33		0.12		0.25		
Control Delay (s/veh)		51.1		22.4		3.4		2.5		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		51.1		22.4		3.4		2.5		
LOS		D		C		A		A		
Approach Delay (s/veh)		51.1		22.4		3.4		2.5		
Approach LOS		D		C		A		A		
Queue Length 50th (m)		9.9		3.0		5.5		6.5		
Queue Length 95th (m)		21.0		12.9		11.3		11.8		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		211		272		2290		2123		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.28		0.20		0.12		0.25		

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay (s/veh): 7.0		Intersection LOS: A	
Intersection Capacity Utilization 60.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	64	31	264	152	
Future Volume (vph)	64	31	264	152	
Lane Group Flow (vph)	102	0	327	206	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	11.5		56.0	56.0	
Actuated g/C Ratio	0.14		0.70	0.70	
v/c Ratio	0.45		0.29	0.18	
Control Delay (s/veh)	37.7		5.6	4.9	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	37.7		5.6	4.9	
LOS	D		A	A	
Approach Delay (s/veh)	37.7		5.6	4.9	
Approach LOS	D		A	A	
Queue Length 50th (m)	14.6		14.8	8.5	
Queue Length 95th (m)	27.4		30.2	18.4	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	298		1127	1151	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.34		0.29	0.18	

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.45			
Intersection Signal Delay (s/veh): 10.5		Intersection LOS: B	
Intersection Capacity Utilization 51.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: Queen Elizabeth Drive & Fifth

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	108	46	276	389	65
Future Vol, veh/h	2	108	46	276	389	65
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2	120	51	307	432	72

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	902	646	682	0	-	0
Stage 1	646	-	-	-	-	-
Stage 2	256	-	-	-	-	-
Critical Hdwy	6.645	6.245	4.145	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	2.2285	-	-	-
Pot Cap-1 Maneuver	291	468	903	-	-	-
Stage 1	518	-	-	-	-	-
Stage 2	762	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	177	380	733	-	-	-
Mov Cap-2 Maneuver	177	-	-	-	-	-
Stage 1	388	-	-	-	-	-
Stage 2	618	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	18.79	1.97	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	514	-	380	-	-
HCM Lane V/C Ratio	0.07	-	0.316	-	-
HCM Ctrl Dly (s/v)	10.3	0.6	18.8	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.3	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	11	0	353	321	0
Future Vol, veh/h	2	11	0	353	321	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2	12	0	392	357	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	553	357	-	0	-	0
Stage 1	357	-	-	-	-	-
Stage 2	196	-	-	-	-	-
Critical Hdwy	6.645	6.245	-	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	-	-	-	-
Pot Cap-1 Maneuver	476	684	0	-	-	0
Stage 1	705	-	0	-	-	0
Stage 2	816	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	476	684	-	-	-	-
Mov Cap-2 Maneuver	476	-	-	-	-	-
Stage 1	705	-	-	-	-	-
Stage 2	816	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.36	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	684	-
HCM Lane V/C Ratio	-	0.018	-
HCM Ctrl Dly (s/v)	-	10.4	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Int Delay, s/veh	10.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	251	166	17	44	121	61
Future Vol, veh/h	251	166	17	44	121	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	279	184	19	49	134	68

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	255	168	202	0	-	0
Stage 1	168	-	-	-	-	-
Stage 2	87	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	738	881	1382	-	-	-
Stage 1	866	-	-	-	-	-
Stage 2	942	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	728	881	1382	-	-	-
Mov Cap-2 Maneuver	728	-	-	-	-	-
Stage 1	854	-	-	-	-	-
Stage 2	942	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	16.07	2.13	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	502	-	782	-	-
HCM Lane V/C Ratio	0.014	-	0.593	-	-
HCM Ctrl Dly (s/v)	7.6	0	16.1	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	4	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	144	409	29	0	356
Future Vol, veh/h	5	144	409	29	0	356
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	2	2
Mvmt Flow	6	160	454	32	0	396

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	768	343	0	0	-	-
Stage 1	571	-	-	-	-	-
Stage 2	198	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	342	658	-	-	0	-
Stage 1	534	-	-	-	0	-
Stage 2	822	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	306	589	-	-	-	-
Mov Cap-2 Maneuver	306	-	-	-	-	-
Stage 1	478	-	-	-	-	-
Stage 2	822	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	13.38	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	589	-
HCM Lane V/C Ratio	-	-	0.272	-
HCM Ctrl Dly (s/v)	-	-	13.4	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	1.1	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	190	1	0	280	120	5
Future Vol, veh/h	190	1	0	280	120	5
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	211	1	0	311	133	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	312	0	723	412
Stage 1	-	-	-	-	312	-
Stage 2	-	-	-	-	411	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1248	-	393	640
Stage 1	-	-	-	-	742	-
Stage 2	-	-	-	-	669	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1116	-	314	512
Mov Cap-2 Maneuver	-	-	-	-	314	-
Stage 1	-	-	-	-	664	-
Stage 2	-	-	-	-	598	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	24.68
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	319	-	-	1116	-
HCM Lane V/C Ratio	0.435	-	-	-	-
HCM Ctrl Dly (s/v)	24.7	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	2.1	-	-	0	-

Intersection	
Int Delay, s/veh	9.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	70	73	5	347	5
Future Vol, veh/h	1	70	73	5	347	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	78	81	6	386	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	87	0	-	0	164	84
Stage 1	-	-	-	-	84	-
Stage 2	-	-	-	-	80	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1509	-	-	-	827	975
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	943	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1509	-	-	-	826	975
Mov Cap-2 Maneuver	-	-	-	-	826	-
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	943	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.1	0	13.18
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	25	-	-	-	828
HCM Lane V/C Ratio	0.001	-	-	-	0.472
HCM Ctrl Dly (s/v)	7.4	0	-	-	13.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	2.6

EXISTING – MAJOR EVENT INGRESS

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	66	56	0	0	0	192	57	58	93	0	0	127
Future Vol, veh/h	66	56	0	0	0	192	57	58	93	0	0	127
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	62	0	0	0	213	63	64	103	0	0	141
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

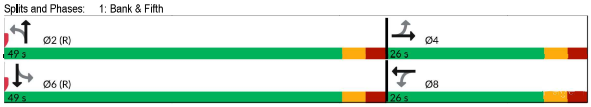
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	9.5	9	9.8	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	54%	0%	0%
Vol Thru, %	28%	46%	0%	0%
Vol Right, %	45%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	208	122	192	127
LT Vol	57	66	0	0
Through Vol	58	56	0	0
RT Vol	93	0	192	127
Lane Flow Rate	231	136	213	141
Geometry Grp	1	1	1	1
Degree of Util (X)	0.301	0.194	0.259	0.174
Departure Headway (Hd)	4.693	5.147	4.369	4.433
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	760	691	815	802
Service Time	2.76	3.221	2.434	2.506
HCM Lane V/C Ratio	0.304	0.197	0.261	0.176
HCM Control Delay, s/veh	9.8	9.5	9	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.3	0.7	1	0.6

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	60	53	71	61	23	453	31	599
Future Volume (vph)	60	53	71	61	23	453	31	599
Lane Group Flow (vph)	0	166	79	126	0	569	0	764
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		14.1	14.1	14.1		49.9		49.9
Actuated g/C Ratio		0.19	0.19	0.19		0.67		0.67
v/c Ratio		0.68	0.43	0.40		0.31		0.42
Control Delay (s/veh)		37.9	32.5	18.3		6.8		7.3
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		37.9	32.5	18.3		6.8		7.3
LOS		D	C	B		A		A
Approach Delay (s/veh)		37.9		23.8		6.8		7.3
Approach LOS		D		C		A		A
Queue Length 50th (m)		19.2	10.0	8.5		13.2		21.7
Queue Length 95th (m)		34.5	19.9	20.3		31.2		41.4
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		346	267	431		1821		1834
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.48	0.30	0.29		0.31		0.42

Intersection Summary			
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay (s/veh): 12.1		Intersection LOS: B	
Intersection Capacity Utilization 68.9%		ICU Level of Service C	
Analysis Period (min) 15			

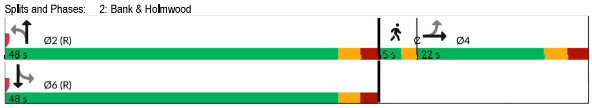
Splits and Phases: 1: Bank & Fifth



Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	37	67	479	53	554	
Future Volume (vph)	37	67	479	53	554	
Lane Group Flow (vph)	150	0	737	0	729	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	13.2		51.0		51.0	
Actuated g/C Ratio	0.18		0.68		0.68	
v/c Ratio	0.61		0.48		0.42	
Control Delay (s/veh)	38.5		7.1		4.0	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.5		7.1		4.0	
LOS	D		A		A	
Approach Delay (s/veh)	38.5		7.1		4.0	
Approach LOS	D		A		A	
Queue Length 50th (m)	19.8		19.7		13.2	
Queue Length 95th (m)	34.1		38.8		17.1	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	314		1547		1739	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.48		0.48		0.42	

Intersection Summary			
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay (s/veh): 8.6		Intersection LOS: A	
Intersection Capacity Utilization 72.0%		ICU Level of Service C	
Analysis Period (min) 15			

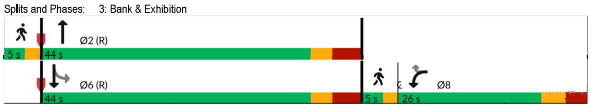
Splits and Phases: 2: Bank & Holmwood



Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	47	37	620	44	563		
Future Volume (vph)	47	37	620	44	563		
Lane Group Flow (vph)	52	41	757	49	626		
Turn Type	Prot	Perm	NA	Perm	NA		
Protected Phases	8		2		6	1	7
Permitted Phases		8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (%)	32.5%	32.5%	55.0%	55.0%	55.0%	6%	6%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	10.2	10.2	61.3	61.3	61.3		
Actuated g/C Ratio	0.13	0.13	0.77	0.77	0.77		
v/c Ratio	0.25	0.23	0.32	0.11	0.26		
Control Delay (s/veh)	34.8	14.2	4.3	4.6	4.1		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	34.8	14.2	4.3	4.6	4.1		
LOS	C	B	A	A	A		
Approach Delay (s/veh)	25.7		4.3		4.1		
Approach LOS	C		A		A		
Queue Length 50th (m)	7.3	0.0	18.6	1.9	14.9		
Queue Length 95th (m)	17.1	8.5	27.2	5.4	22.0		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	402	303	2357	428	2429		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.13	0.14	0.32	0.11	0.26		

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.32			
Intersection Signal Delay (s/veh): 5.6		Intersection LOS: A	
Intersection Capacity Utilization 61.7%		ICU Level of Service B	
Analysis Period (min) 15			

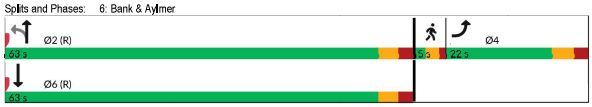
Splits and Phases: 3: Bank & Exhibition



Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	88	13	714	745	
Future Volume (vph)	88	13	714	745	
Lane Group Flow (vph)	125	0	807	882	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.6		59.7	59.7	
Actuated g/C Ratio	0.16		0.66	0.66	
v/c Ratio	0.50		0.41	0.43	
Control Delay (s/veh)	38.1		5.5	7.9	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	38.1		5.5	7.9	
LOS	D		A	A	
Approach Delay (s/veh)	38.1		5.5	7.9	
Approach LOS	D		A	A	
Queue Length 50th (m)	17.9		20.5	31.8	
Queue Length 95th (m)	33.9		24.9	47.0	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	282		1985	2047	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.44		0.41	0.43	

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 90		
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green		
Natural Cycle: 90		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.50		
Intersection Signal Delay (s/veh): 8.9	Intersection LOS: A	
Intersection Capacity Utilization 51.2%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 6: Bank & Aylmer



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	51	76	13	81	26	509	135	605		
Future Volume (vph)	51	76	13	81	26	509	135	605		
Lane Group Flow (vph)	0	181	0	273	0	625	0	912		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	60.0	5.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	43.0	5.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%	47.8%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		22.5		22.5		55.9		55.9		
Actuated g/C Ratio		0.25		0.25		0.62		0.62		
v/c Ratio		0.69		0.75		0.37		0.71		
Control Delay (s/veh)		45.0		35.2		9.4		10.8		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		45.0		35.2		9.4		10.8		
LOS		D		D		A		B		
Approach Delay (s/veh)		45.0		35.2		9.4		10.8		
Approach LOS		D		D		A		B		
Queue Length 50th (m)		27.5		29.6		26.6		57.6		
Queue Length 95th (m)		#51.3		#63.9		37.2		83.5		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		268		370		1691		1276		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.68		0.74		0.37		0.71		

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 90		
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green		
Natural Cycle: 110		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.75		
Intersection Signal Delay (s/veh): 16.8	Intersection LOS: B	
Intersection Capacity Utilization 87.5%	ICU Level of Service E	
Analysis Period (min) 15		
# 95th percentile volume exceeds capacity, queue may be longer.		
Queue shown is maximum after two cycles.		

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	62	69	255	629	
Future Volume (vph)	62	69	255	629	
Lane Group Flow (vph)	166	0	360	836	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	14.2		53.3	53.3	
Actuated g/C Ratio	0.18		0.67	0.67	
v/c Ratio	0.62		0.50	0.76	
Control Delay (s/veh)	39.9		10.5	16.3	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	39.9		10.5	16.3	
LOS	D		B	B	
Approach Delay (s/veh)	39.9		10.5	16.3	
Approach LOS	D		B	B	
Queue Length 50th (m)	23.6		23.2	73.2	
Queue Length 95th (m)	39.2		52.8	#174.4	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	309		723	1099	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.54		0.50	0.76	

Intersection Summary		
Cycle Length: 80		
Actuated Cycle Length: 80		
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green		
Natural Cycle: 80		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.76		
Intersection Signal Delay (s/veh): 17.7	Intersection LOS: B	
Intersection Capacity Utilization 86.4%	ICU Level of Service E	
Analysis Period (min) 15		
# 95th percentile volume exceeds capacity, queue may be longer.		
Queue shown is maximum after two cycles.		

Splits and Phases: 9: Queen Elizabeth Drive & Fifth

Intersection	
Int Delay, s/veh	14.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	266	104	702	518	103
Future Vol, veh/h	5	266	104	702	518	103
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	6	296	116	780	576	114

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1432	811	868	0	-	0
Stage 1	811	-	-	-	-	-
Stage 2	621	-	-	-	-	-
Critical Hdwy	6.645	6.245	4.145	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	2.2285	-	-	-
Pot Cap-1 Maneuver	135	377	769	-	-	-
Stage 1	434	-	-	-	-	-
Stage 2	497	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	68	306	624	-	-	-
Mov Cap-2 Maneuver	68	-	-	-	-	-
Stage 1	269	-	-	-	-	-
Stage 2	403	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	81.31	3.48	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	465	-	306	-	-
HCM Lane V/C Ratio	0.185	-	0.967	-	-
HCM Ctrl Dly (s/v)	12.1	2.2	81.3	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.7	-	9.9	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	72	0	784	757	0
Future Vol, veh/h	1	72	0	784	757	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1	80	0	871	841	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1277	841	-	0	-	0
Stage 1	841	-	-	-	-	-
Stage 2	436	-	-	-	-	-
Critical Hdwy	6.645	6.245	-	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	-	-	-	-
Pot Cap-1 Maneuver	169	362	0	-	-	0
Stage 1	420	-	0	-	-	0
Stage 2	618	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	169	362	-	-	-	-
Mov Cap-2 Maneuver	169	-	-	-	-	-
Stage 1	420	-	-	-	-	-
Stage 2	618	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	17.76	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	362	-
HCM Lane V/C Ratio	-	0.221	-
HCM Ctrl Dly (s/v)	-	17.8	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	0.8	-

Intersection	
Int Delay, s/veh	8.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	94	97	105	232	441	256
Future Vol, veh/h	94	97	105	232	441	256
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	104	108	117	258	490	284

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1123	632	774	0	-	0
Stage 1	632	-	-	-	-	-
Stage 2	491	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	229	484	850	-	-	-
Stage 1	533	-	-	-	-	-
Stage 2	619	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	193	484	850	-	-	-
Mov Cap-2 Maneuver	193	-	-	-	-	-
Stage 1	448	-	-	-	-	-
Stage 2	619	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	50.28	3.09	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	561	-	278	-	-
HCM Lane V/C Ratio	0.137	-	0.765	-	-
HCM Ctrl Dly (s/v)	9.9	0	50.3	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.5	-	5.7	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	657	0	0	608
Future Vol, veh/h	0	0	657	0	0	608
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	2	2
Mvmt Flow	0	0	730	0	0	676

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	465	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6,9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3,3	-	-	-	-
Pot Cap-1 Maneuver	0	550	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	491	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-

EXISTING – MAJOR EVENT EGRESS

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	51	0	0	0	109	114	97	141	0	0	53
Future Vol, veh/h	24	51	0	0	0	109	114	97	141	0	0	53
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	57	0	0	0	121	127	108	157	0	0	59
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

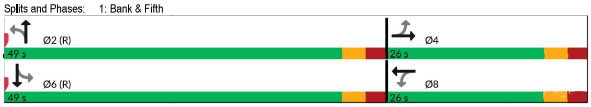
Approach	EB				WB	NB						SB
Opposing Approach	WB				EB	SB						NB
Opposing Lanes	1				1	1						1
Conflicting Approach Left	SB				NB	EB						WB
Conflicting Lanes Left	1				1	1						1
Conflicting Approach Right	NB				SB	WB						EB
Conflicting Lanes Right	1				1	1						1
HCM Control Delay, s/veh	8.9				8.3	11.1						7.6
HCM LOS	A				A	B						A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	32%	32%	0%	0%
Vol Thru, %	28%	68%	0%	0%
Vol Right, %	40%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	352	75	109	53
LT Vol	114	24	0	0
Through Vol	97	51	0	0
RT Vol	141	0	109	53
Lane Flow Rate	391	83	121	59
Geometry Grp	1	1	1	1
Degree of Util (X)	0.468	0.119	0.15	0.07
Departure Headway (Hd)	4.307	5.145	4.444	4.249
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	837	694	803	839
Service Time	2.34	3.196	2.491	2.296
HCM Lane V/C Ratio	0.467	0.12	0.151	0.07
HCM Control Delay, s/veh	11.1	8.9	8.3	7.6
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	2.5	0.4	0.5	0.2

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	74	32	39	68	21	308	19	340
Future Volume (vph)	74	32	39	68	21	308	19	340
Lane Group Flow (vph)	0	147	43	143	0	392	0	441
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		14.0	14.0	14.0		50.0		50.0
Actuated g/C Ratio		0.19	0.19	0.19		0.67		0.67
v/c Ratio		0.67	0.22	0.46		0.21		0.24
Control Delay (s/veh)		39.2	26.3	20.1		4.9		5.8
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		39.2	26.3	20.1		4.9		5.8
LOS		D	C	C		A		A
Approach Delay (s/veh)		39.2		21.5		4.9		5.8
Approach LOS		D		C		A		A
Queue Length 50th (m)		17.3	5.2	10.5		7.8		10.3
Queue Length 95th (m)		31.8	12.1	23.1		16.0		21.1
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		315	287	432		1847		1856
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.47	0.15	0.33		0.21		0.24

Intersection Summary			
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay (s/veh): 12.2		Intersection LOS: B	
Intersection Capacity Utilization 71.9%		ICU Level of Service C	
Analysis Period (min) 15			

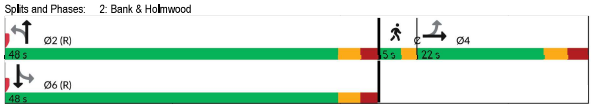
Splits and Phases: 1: Bank & Fifth



Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	21	49	259	30	270	
Future Volume (vph)	21	49	259	30	270	
Lane Group Flow (vph)	143	0	405	0	401	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	13.1		51.1		51.1	
Actuated g/C Ratio	0.17		0.68		0.68	
v/c Ratio	0.61		0.25		0.23	
Control Delay (s/veh)	38.7		5.0		3.1	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.7		5.0		3.1	
LOS	D		A		A	
Approach Delay (s/veh)	38.7		5.0		3.1	
Approach LOS	D		A		A	
Queue Length 50th (m)	18.9		8.4		6.4	
Queue Length 95th (m)	32.8		17.4		9.2	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	304		1645		1778	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.47		0.25		0.23	

Intersection Summary			
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay (s/veh): 9.3		Intersection LOS: A	
Intersection Capacity Utilization 58.2%		ICU Level of Service B	
Analysis Period (min) 15			

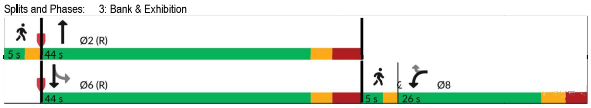
Splits and Phases: 2: Bank & Holmwood



Lane Group	NBT	SBT	Ø1	Ø7	Ø8
Lane Configurations					
Traffic Volume (vph)	350	333			
Future Volume (vph)	350	333			
Lane Group Flow (vph)	389	370			
Turn Type	NA	NA			
Protected Phases	2	6	1	7	8
Permitted Phases					
Detector Phase	2	6			
Switch Phase					
Minimum Initial (s)	10.0	10.0	1.0	1.0	10.0
Minimum Split (s)	44.0	44.0	5.0	5.0	26.0
Total Split (s)	44.0	44.0	5.0	5.0	26.0
Total Split (%)	55.0%	55.0%	6%	6%	33%
Yellow Time (s)	3.0	3.0	2.0	2.0	3.3
All-Red Time (s)	3.9	3.9	0.0	0.0	3.0
Lost Time Adjust (s)	0.0	0.0			
Total Lost Time (s)	6.9	6.9			
Lead/Lag				Lead	Lag
Lead-Lag Optimize?				Yes	
Recall Mode	C-Max	C-Max	None	None	None
Act Effct Green (s)	80.0	80.0			
Actuated g/C Ratio	1.00	1.00			
v/c Ratio	0.12	0.12			
Control Delay (s/veh)	0.1	0.1			
Queue Delay	0.0	0.0			
Total Delay (s/veh)	0.1	0.1			
LOS	A	A			
Approach Delay (s/veh)	0.1	0.1			
Approach LOS	A	A			
Queue Length 50th (m)	0.0	0.0			
Queue Length 95th (m)	0.0	0.0			
Internal Link Dist (m)	33.7	44.8			
Turn Bay Length (m)					
Base Capacity (vph)	3204	3173			
Starvation Cap Reductn	0	0			
Spillback Cap Reductn	0	0			
Storage Cap Reductn	0	0			
Reduced v/c Ratio	0.12	0.12			

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.12			
Intersection Signal Delay (s/veh): 0.1		Intersection LOS: A	
Intersection Capacity Utilization 43.5%		ICU Level of Service A	
Analysis Period (min) 15			

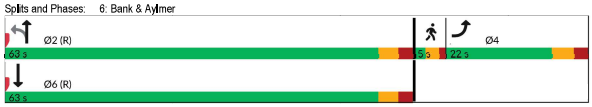
Splits and Phases: 3: Bank & Exhibition



Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	18	16	323	288	
Future Volume (vph)	18	16	323	288	
Lane Group Flow (vph)	37	0	377	344	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.0		60.3	60.3	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.17		0.19	0.17	
Control Delay (s/veh)	23.5		4.9	5.5	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	23.5		4.9	5.5	
LOS	C		A	A	
Approach Delay (s/veh)	23.5		4.9	5.5	
Approach LOS	C		A	A	
Queue Length 50th (m)	3.0		9.4	9.6	
Queue Length 95th (m)	11.4		13.4	14.4	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	261		1971	2055	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.14		0.19	0.17	

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.19
Intersection Signal Delay (s/veh): 6.0 Intersection LOS: A
Intersection Capacity Utilization 45.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	30	27	16	34	19	263	14	295		
Future Volume (vph)	30	27	16	34	19	263	14	295		
Lane Group Flow (vph)	0	87	0	96	0	321	0	376		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	60.0	5.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	43.0	5.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%	47.8%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		12.1		11.9		69.9		69.9		
Actuated g/C Ratio		0.13		0.13		0.78		0.78		
v/c Ratio		0.57		0.50		0.15		0.17		
Control Delay (s/veh)		50.3		31.5		4.0		1.2		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		50.3		31.5		4.0		1.2		
LOS		D		C		A		A		
Approach Delay (s/veh)		50.3		31.5		4.0		1.2		
Approach LOS		D		C		A		A		
Queue Length 50th (m)		14.3		9.6		7.0		1.7		
Queue Length 95th (m)		27.2		22.7		14.0		3.4		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		244		293		2200		2158		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.36		0.33		0.15		0.17		

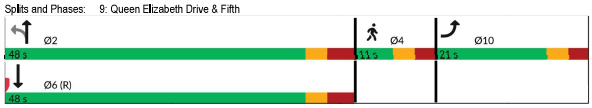
Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.57
Intersection Signal Delay (s/veh): 10.4 Intersection LOS: B
Intersection Capacity Utilization 44.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	132	42	298	283	
Future Volume (vph)	132	42	298	283	
Lane Group Flow (vph)	214	0	378	388	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	16.3		51.2	51.2	
Actuated g/C Ratio	0.20		0.64	0.64	
v/c Ratio	0.67		0.38	0.37	
Control Delay (s/veh)	39.6		9.1	8.9	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	39.6		9.1	8.9	
LOS	D		A	A	
Approach Delay (s/veh)	39.6		9.1	8.9	
Approach LOS	D		A	A	
Queue Length 50th (m)	30.1		24.3	24.7	
Queue Length 95th (m)	47.6		48.6	48.6	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	342		989	1051	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.63		0.38	0.37	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay (s/veh): 15.7 Intersection LOS: B
Intersection Capacity Utilization 66.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 9: Queen Elizabeth Drive & Fifth



Intersection
Int Delay, s/veh 0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	5	0	350	280	66
Future Vol, veh/h	0	5	0	350	280	66
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	6	0	389	311	73

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	526	562	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.245	4.145	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3285	2.2285	-	-	-
Pot Cap-1 Maneuver	0	549	1001	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	445	812	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	13.19	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	812	-	445	-	-
HCM Lane V/C Ratio	-	-	0.012	-	-
HCM Ctrl Dly (s/v)	0	-	13.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0,5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	32	0	350	290	0
Future Vol, veh/h	0	32	0	350	290	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	36	0	389	322	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	322	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6,245	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3,3285	-	-	-	-
Pot Cap-1 Maneuver	0	715	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	715	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10,3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	715	-
HCM Lane V/C Ratio	-	0,05	-
HCM Ctrl Dly (s/v)	-	10,3	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0,2	-

Intersection	
Int Delay, s/veh	19

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	238	210	50	109	215	127
Future Vol, veh/h	238	210	50	109	215	127
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	264	233	56	121	239	141

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	542	309	380	0	-	0
Stage 1	309	-	-	-	-	-
Stage 2	232	-	-	-	-	-
Critical Hdwy	6,4	6,2	4,1	-	-	-
Critical Hdwy Stg 1	5,4	-	-	-	-	-
Critical Hdwy Stg 2	5,4	-	-	-	-	-
Follow-up Hdwy	3,5	3,3	2,2	-	-	-
Pot Cap-1 Maneuver	505	735	1190	-	-	-
Stage 1	749	-	-	-	-	-
Stage 2	811	-	-	-	-	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	480	735	1190	-	-	-
Mov Cap-2 Maneuver	480	-	-	-	-	-
Stage 1	711	-	-	-	-	-
Stage 2	811	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	39,4	2,57	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	566	-	573	-	-
HCM Lane V/C Ratio	0,047	-	0,868	-	-
HCM Ctrl Dly (s/v)	8,2	0	39,4	-	-
HCM Lane LOS	A	A	E	-	-
HCM 95th %tile Q(veh)	0,1	-	9,7	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	350	0	0	333
Future Vol, veh/h	0	0	350	0	0	333
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	2	2
Mvmt Flow	0	0	389	0	0	370

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	294	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6,9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3,3	-	-	-	-
Pot Cap-1 Maneuver	0	708	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	633	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-

SYNCHRO SUMMARY SHEETS – 2028

2028 – WEEKDAY AM

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	153	83	5	5	5
Future Vol, veh/h	5	153	83	5	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	170	92	6	6	6
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	8.1	7.6	7.4
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	0%	50%
Vol Thru, %	97%	94%	0%
Vol Right, %	0%	6%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	158	88	10
LT Vol	5	0	5
Through Vol	153	83	0
RT Vol	0	5	5
Lane Flow Rate	176	98	11
Geometry Grp	1	1	1
Degree of Util (X)	0.197	0.11	0.013
Departure Headway (Hd)	4.033	4.05	4.318
Convergence, Y/N	Yes	Yes	Yes
Cap	890	881	834
Service Time	2.058	2.091	2.318
HCM Lane V/C Ratio	0.198	0.111	0.013
HCM Control Delay, s/veh	8.1	7.6	7.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0.4	0

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	5	5	123	5	5
Future Vol, veh/h	2	5	5	123	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	6	6	137	6	6
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	6.7	7.7	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	4%
Vol Thru, %	0%	29%	96%
Vol Right, %	50%	71%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	10	7	128
LT Vol	5	0	5
Through Vol	0	2	123
RT Vol	5	5	0
Lane Flow Rate	11	8	142
Geometry Grp	1	1	1
Degree of Util (X)	0.012	0.008	0.157
Departure Headway (Hd)	3.993	3.63	3.967
Convergence, Y/N	Yes	Yes	Yes
Cap	888	984	909
Service Time	2.055	1.66	1.972
HCM Lane V/C Ratio	0.012	0.008	0.156
HCM Control Delay, s/veh	7.1	6.7	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0	0.6

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	5	67	57	87	87
Future Vol, veh/h	2	5	67	57	87	87
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	6	74	63	97	97
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.1	8.4	8.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	54%
Vol Thru, %	0%	29%	46%
Vol Right, %	50%	71%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	174	7	124
LT Vol	87	0	67
Through Vol	0	2	57
RT Vol	87	5	0
Lane Flow Rate	193	8	138
Geometry Grp	1	1	1
Degree of Util (X)	0.214	0.009	0.168
Departure Headway (Hd)	3.985	4.08	4.388
Convergence, Y/N	Yes	Yes	Yes
Cap	885	882	807
Service Time	2.078	2.08	2.473
HCM Lane V/C Ratio	0.218	0.009	0.171
HCM Control Delay, s/veh	8.2	7.1	8.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.8	0	0.6

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	67	41	0	0	0	72	19	32	24	0	0	108
Future Vol, veh/h	67	41	0	0	0	72	19	32	24	0	0	108
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	74	46	0	0	0	80	21	36	27	0	0	120
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.4	7.3	7.9	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	62%	0%	0%
Vol Thru, %	43%	38%	0%	0%
Vol Right, %	32%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	75	108	72	108
LT Vol	19	67	0	0
Through Vol	32	41	0	0
RT Vol	24	0	72	108
Lane Flow Rate	83	120	80	120
Geometry Grp	1	1	1	1
Degree of Util (X)	0.101	0.153	0.087	0.129
Departure Headway (Hd)	4.358	4.583	3.9	3.872
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	824	787	920	928
Service Time	2.376	2.583	1.917	1.888
HCM Lane V/C Ratio	0.101	0.152	0.087	0.129
HCM Control Delay, s/veh	7.9	8.4	7.3	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.5	0.3	0.4

1: Bank & Fifth

01/10/2025

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	38	59	50	50	9	551	20	420
Future Volume (vph)	38	59	50	50	9	551	20	420
Lane Group Flow (vph)	0	140	56	89	0	661	0	528
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Act Effct Green (s)		20.5	20.5	20.5		43.5		43.5
Actuated g/C Ratio		0.27	0.27	0.27		0.58		0.58
v/c Ratio		0.37	0.20	0.21		0.40		0.33
Control Delay (s/veh)		22.2	23.1	15.9		6.4		8.6
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		22.2	23.1	15.9		6.4		8.6
LOS		C	C	B		A		A
Approach Delay (s/veh)		22.2		18.7		6.4		8.6
Approach LOS		C		B		A		A
Queue Length 50th (m)		13.5	6.1	6.0		12.3		17.7
Queue Length 95th (m)		28.4	14.8	16.4		16.0		26.4
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		376	287	419		1647		1589
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.37	0.20	0.21		0.40		0.33

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 33 (44%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Pretimed
Maximum v/c Ratio: 0.40
Intersection Signal Delay (s/veh): 9.9 — Intersection LOS: A
Intersection Capacity Utilization 54.7% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth

2: Bank & Holmwood

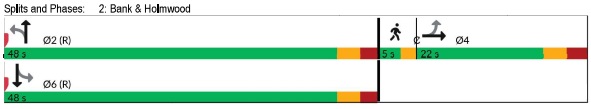
01/10/2025

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	22	16	542	11	376	
Future Volume (vph)	22	16	542	11	376	
Lane Group Flow (vph)	88	0	651	0	456	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	10.1		57.4		57.4	
Actuated g/C Ratio	0.13		0.77		0.77	
v/c Ratio	0.48		0.30		0.21	
Control Delay (s/veh)	37.8		4.3		3.1	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	37.8		4.3		3.1	
LOS	D		A		A	
Approach Delay (s/veh)	37.8		4.3		3.1	
Approach LOS	D		A		A	
Queue Length 50th (m)	11.7		13.7		7.2	
Queue Length 95th (m)	23.3		25.6		13.6	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	298		2138		2147	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.30		0.30		0.21	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 28 (37%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay (s/veh): 6.3 — Intersection LOS: A
Intersection Capacity Utilization 52.2% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



3: Bank & Exhibition

01/10/2025

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø7
Lane Configurations						
Traffic Volume (vph)	49	30	514	56	349	
Future Volume (vph)	49	30	514	56	349	
Lane Group Flow (vph)	54	33	674	62	388	
Turn Type	Prot	Perm	NA	Perm	NA	
Protected Phases	8		2		6	7
Permitted Phases		8		6		
Detector Phase	8	8	2	6	6	
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	3.0
Minimum Split (s)	26.0	26.0	27.0	27.0	27.0	5.0
Total Split (s)	26.0	26.0	27.0	27.0	27.0	5.0
Total Split (%)	44.8%	44.8%	46.6%	46.6%	46.6%	9%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9	
Lead/Lag	Lag	Lag				Lead
Lead-Lag Optimize?						Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None
Act Effct Green (s)	10.0	10.0	44.1	44.1	44.1	
Actuated g/C Ratio	0.17	0.17	0.76	0.76	0.76	
v/c Ratio	0.20	0.14	0.31	0.14	0.16	
Control Delay (s/veh)	22.9	10.3	4.7	5.9	4.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	22.9	10.3	4.7	5.9	4.2	
LOS	C	B	A	A	A	
Approach Delay (s/veh)	18.1		4.7		4.5	
Approach LOS	B		A		A	
Queue Length 50th (m)	5.0	0.0	15.5	2.5	8.4	
Queue Length 95th (m)	13.0	5.9	24.0	7.2	13.6	
Internal Link Dist (m)	30.6		33.7		44.8	
Turn Bay Length (m)				40.0		
Base Capacity (vph)	523	419	2194	445	2388	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.10	0.08	0.31	0.14	0.16	

Intersection Summary

Cycle Length: 58
Actuated Cycle Length: 58
Offset: 25 (43%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.31
Intersection Signal Delay (s/veh): 5.6 — Intersection LOS: A
Intersection Capacity Utilization 60.1% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition

6: Bank & Aylmer

01/10/2025

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	64	15	711	529	
Future Volume (vph)	64	15	711	529	
Lane Group Flow (vph)	81	0	807	648	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	20.0	55.0	55.0	55.0	5.0
Total Split (s)	20.0	55.0	55.0	55.0	5.0
Total Split (%)	25.0%	68.8%	68.8%	68.8%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	None	C-Max	C-Max	C-Max	None
Act Effct Green (s)	10.8		62.7	62.7	
Actuated g/C Ratio	0.14		0.78	0.78	
v/c Ratio	0.38		0.35	0.28	
Control Delay (s/veh)	34.1		5.3	3.6	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	34.1		5.3	3.6	
LOS	C		A	A	
Approach Delay (s/veh)	34.1		5.3	3.6	
Approach LOS	C		A	A	
Queue Length 50th (m)	10.4		27.4	12.8	
Queue Length 95th (m)	22.1		m42.3	22.1	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	280		2300	2330	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.29		0.35	0.28	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 4 (5%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.38
Intersection Signal Delay (s/veh): 6.1 — Intersection LOS: A
Intersection Capacity Utilization 52.6% — ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	58	60	19	60	23	975	189	393		
Future Volume (vph)	58	60	19	60	23	975	189	393		
Lane Group Flow (vph)	0	144	0	392	0	1123	0	695		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	26.0	26.0	26.0	26.0	38.0	38.0	11.0	49.0	5.0	5.0
Total Split (s)	26.0	26.0	26.0	26.0	38.0	38.0	11.0	38.0	5.0	5.0
Total Split (%)	32.5%	32.5%	32.5%	32.5%	47.5%	47.5%	13.8%	47.5%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		21.3		21.3		47.1		47.1		
Actuated g/C Ratio		0.27		0.27		0.59		0.59		
v/c Ratio		0.65		0.87		0.65		1.10dl		
Control Delay (s/veh)		39.1		33.5		14.4		29.6		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		39.1		33.5		14.4		29.6		
LOS		D		C		B		C		
Approach Delay (s/veh)		39.1		33.5		14.4		29.6		
Approach LOS		D		C		B		C		
Queue Length 50th (m)		17.9		25.0		62.5		51.9		
Queue Length 95th (m)		36.3		#73.1		85.4		#79.7		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		243		473		1727		922		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.59		0.83		0.65		0.75		

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 60 (75%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay (s/veh): 23.6 Intersection LOS: C
Intersection Capacity Utilization 94.7% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	47	27	225	293	
Future Volume (vph)	47	27	225	293	
Lane Group Flow (vph)	82	0	280	379	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	32.0	32.0	32.0	16.0
Total Split (s)	22.0	32.0	32.0	32.0	16.0
Total Split (%)	31.4%	45.7%	45.7%	45.7%	23%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	Max	None
Act Effct Green (s)	10.0		25.2	25.2	
Actuated g/C Ratio	0.21		0.53	0.53	
v/c Ratio	0.25		0.34	0.43	
Control Delay (s/veh)	18.1		7.9	8.9	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	18.1		7.9	8.9	
LOS	B		A	A	
Approach Delay (s/veh)	18.1		7.9	8.9	
Approach LOS	B		A	A	
Queue Length 50th (m)	5.8		11.9	17.2	
Queue Length 95th (m)	14.5		23.4	32.5	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	530		832	872	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.15		0.34	0.43	

Intersection Summary
Cycle Length: 70
Actuated Cycle Length: 47.7
Natural Cycle: 70
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.43
Intersection Signal Delay (s/veh): 9.5 Intersection LOS: A
Intersection Capacity Utilization 55.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 9: Queen Elizabeth Drive & Fifth

Intersection						
Int Delay, s/veh	5.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	188	142	630	369	26
Future Vol, veh/h	1	188	142	630	369	26
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	1	209	158	700	410	29

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1268	602	617	0	-	0
Stage 1	602	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Critical Hdwy	6.675	6.275	4.175	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	2.2475	-	-	-
Pot Cap-1 Maneuver	169	491	944	-	-	-
Stage 1	538	-	-	-	-	-
Stage 2	467	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	83	399	766	-	-	-
Mov Cap-2 Maneuver	83	-	-	-	-	-
Stage 1	325	-	-	-	-	-
Stage 2	379	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	23.53	3.58	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	617	-	399	-	-
HCM Lane V/C Ratio	0.206	-	0.524	-	-
HCM Ctrl Dly (s/v)	10.9	1.9	23.5	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %ile Q(veh)	0.8	-	2.9	-	-

Intersection	
Int Delay, s/veh	0,3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	27	0	761	546	0
Future Vol, veh/h	0	27	0	761	546	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	0	30	0	846	607	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	607	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6,275	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3,3475	-	-	-	-
Pot Cap-1 Maneuver	0	489	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	489	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	12,85	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	489	-
HCM Lane V/C Ratio	-	0,061	-
HCM Ctrl Dly (s/v)	-	12,8	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0,2	-

Intersection	
Int Delay, s/veh	1,8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	25	25	70	248	277	85
Future Vol, veh/h	25	25	70	248	277	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	28	28	78	276	308	94

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	786	355	402	0	-	0
Stage 1	355	-	-	-	-	-
Stage 2	431	-	-	-	-	-
Critical Hdwy	6,4	6,2	4,1	-	-	-
Critical Hdwy Stg 1	5,4	-	-	-	-	-
Critical Hdwy Stg 2	5,4	-	-	-	-	-
Follow-up Hdwy	3,5	3,3	2,2	-	-	-
Pot Cap-1 Maneuver	364	693	1167	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	660	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	335	693	1167	-	-	-
Mov Cap-2 Maneuver	335	-	-	-	-	-
Stage 1	658	-	-	-	-	-
Stage 2	660	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	14,08	1,83	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	396	-	452	-	-
HCM Lane V/C Ratio	0,067	-	0,123	-	-
HCM Ctrl Dly (s/v)	8,3	0	14,1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0,2	-	0,4	-	-

Intersection	
Int Delay, s/veh	0,4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	34	548	7	0	409
Future Vol, veh/h	0	34	548	7	0	409
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	15	6	0	0	5
Mvmt Flow	0	38	609	8	0	454

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	408	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7,2	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3,45	-	-	-	-
Pot Cap-1 Maneuver	0	557	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	498	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12,82	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	498	-
HCM Lane V/C Ratio	-	-	0,076	-
HCM Ctrl Dly (s/v)	-	-	12,8	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0,2	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	153	0	0	83	0	0
Future Vol, veh/h	153	0	0	83	0	0
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	170	0	0	92	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	270	0	462	370
Stage 1	-	-	-	-	270	-
Stage 2	-	-	-	-	192	-
Critical Hdwy	-	-	4,12	-	6,42	6,22
Critical Hdwy Stg 1	-	-	-	-	5,42	-
Critical Hdwy Stg 2	-	-	-	-	5,42	-
Follow-up Hdwy	-	-	2,218	-	3,518	3,318
Pot Cap-1 Maneuver	-	-	1293	-	558	676
Stage 1	-	-	-	-	775	-
Stage 2	-	-	-	-	840	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1157	-	446	540
Mov Cap-2 Maneuver	-	-	-	-	446	-
Stage 1	-	-	-	-	693	-
Stage 2	-	-	-	-	751	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1157	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	51	38	120	35	8	10
Future Vol, veh/h	51	38	120	35	8	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	57	42	133	39	9	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	172	0	-	0	308	153
Stage 1	-	-	-	-	153	-
Stage 2	-	-	-	-	156	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1405	-	-	-	684	893
Stage 1	-	-	-	-	875	-
Stage 2	-	-	-	-	873	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1405	-	-	-	656	893
Mov Cap-2 Maneuver	-	-	-	-	656	-
Stage 1	-	-	-	-	839	-
Stage 2	-	-	-	-	873	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	4.4	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1031	-	-	-	769
HCM Lane V/C Ratio	0.04	-	-	-	0.026
HCM Ctrl Dly (s/v)	7.7	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

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Intersection	
Intersection Delay, s/veh	8,5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	210	174	5	5	5
Future Vol, veh/h	5	210	174	5	5	5
Peak Hour Factor	0,90	0,90	0,90	0,90	0,90	0,90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	233	193	6	6	6
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	8,7	8,4	7,7
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	0%	50%
Vol Thru, %	98%	97%	0%
Vol Right, %	0%	3%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	215	179	10
LT Vol	5	0	5
Through Vol	210	174	0
RT Vol	0	5	5
Lane Flow Rate	239	199	11
Geometry Grp	1	1	1
Degree of Util (X)	0.273	0.227	0.014
Departure Headway (Hd)	4,107	4,114	4,667
Convergence, Y/N	Yes	Yes	Yes
Cap	870	865	772
Service Time	2,157	2,174	2,667
HCM Lane V/C Ratio	0,275	0,23	0,014
HCM Control Delay, s/veh	8.7	8.4	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.1	0.9	0

Intersection	
Intersection Delay, s/veh	6,9
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	3	5	5	5	5	5
Future Vol, veh/h	3	5	5	5	5	5
Peak Hour Factor	0,90	0,90	0,90	0,90	0,90	0,90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	6	6	6	6	6
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	6,6	7,1	6,8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	50%
Vol Thru, %	0%	38%	50%
Vol Right, %	50%	63%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	10	8	10
LT Vol	5	0	5
Through Vol	0	3	5
RT Vol	5	5	0
Lane Flow Rate	11	9	11
Geometry Grp	1	1	1
Degree of Util (X)	0.012	0.009	0.013
Departure Headway (Hd)	3,769	3,587	4,06
Convergence, Y/N	Yes	Yes	Yes
Cap	953	1002	886
Service Time	1,777	1,593	2,065
HCM Lane V/C Ratio	0,012	0,009	0,012
HCM Control Delay, s/veh	6.8	6.6	7.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0	0

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	3	5	140	5	39	210
Future Vol, veh/h	3	5	140	5	39	210
Peak Hour Factor	0,90	0,90	0,90	0,90	0,90	0,90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	6	156	6	43	233
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.4	9	8,5
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	16%	0%	97%
Vol Thru, %	0%	38%	3%
Vol Right, %	84%	63%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	249	8	145
LT Vol	39	0	140
Through Vol	0	3	5
RT Vol	210	5	0
Lane Flow Rate	277	9	161
Geometry Grp	1	1	1
Degree of Util (X)	0,298	0,011	0,212
Departure Headway (Hd)	3,88	4,322	4,727
Convergence, Y/N	Yes	Yes	Yes
Cap	930	828	764
Service Time	1,892	2,347	2,727
HCM Lane V/C Ratio	0,298	0,011	0,211
HCM Control Delay, s/veh	8,5	7,4	9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.3	0	0.8

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	74	39	0	0	0	103	40	27	30	0	0	93
Future Vol, veh/h	74	39	0	0	0	103	40	27	30	0	0	93
Peak Hour Factor	0,90	0,90	0,90	0,90	0,90	0,90	0,90	0,90	0,90	0,90	0,90	0,90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	82	43	0	0	0	114	44	30	33	0	0	103
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8,6	7,5	8,2	7,5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	41%	65%	0%	0%
Vol Thru, %	28%	35%	0%	0%
Vol Right, %	31%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	97	113	103	93
LT Vol	40	74	0	0
Through Vol	27	39	0	0
RT Vol	30	0	103	93
Lane Flow Rate	108	126	114	103
Geometry Grp	1	1	1	1
Degree of Util (X)	0,134	0,162	0,125	0,115
Departure Headway (Hd)	4,471	4,641	3,942	3,991
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	803	773	910	899
Service Time	2,491	2,663	1,963	2,01
HCM Lane V/C Ratio	0,134	0,163	0,125	0,115
HCM Control Delay, s/veh	8,2	8,6	7,5	7,5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.6	0.4	0.4

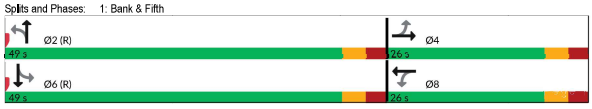
1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	46	54	63	38	16	443	29	565
Future Volume (vph)	46	54	63	38	16	443	29	565
Lane Group Flow (vph)	0	162	70	81	0	554	0	701
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		13.1	13.1	13.1		50.9		50.9
Actuated g/C Ratio		0.17	0.17	0.17		0.68		0.68
v/c Ratio		0.67	0.43	0.29		0.30		0.38
Control Delay (s/veh)		35.8	33.9	17.4		5.4		6.6
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		35.8	33.9	17.4		5.4		6.6
LOS		D	C	B		A		A
Approach Delay (s/veh)		35.8		25.0		5.4		6.6
Approach LOS		D		C		A		A
Queue Length 50th (m)		17.5	8.9	5.1		12.4		18.5
Queue Length 95th (m)		32.4	18.5	14.6		23.8		36.2
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		364	256	409		1857		1859
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.45	0.27	0.20		0.30		0.38

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay (s/veh): 10.9 — Intersection LOS: B
Intersection Capacity Utilization 67.1% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth



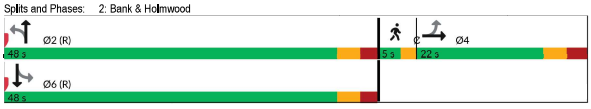
2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	18	26	500	28	545	
Future Volume (vph)	18	26	500	28	545	
Lane Group Flow (vph)	112	0	641	0	668	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	11.6		56.0		56.0	
Actuated g/C Ratio	0.15		0.75		0.75	
v/c Ratio	0.55		0.33		0.33	
Control Delay (s/veh)	38.8		5.0		3.2	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.8		5.0		3.2	
LOS	D		A		A	
Approach Delay (s/veh)	38.8		5.0		3.2	
Approach LOS	D		A		A	
Queue Length 50th (m)	14.8		14.7		12.2	
Queue Length 95th (m)	27.6		28.5		16.1	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	287		1970		2033	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.39		0.33		0.33	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay (s/veh): 6.9 — Intersection LOS: A
Intersection Capacity Utilization 64.3% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



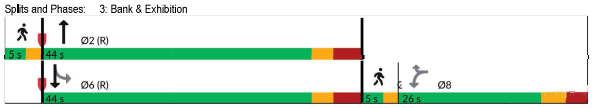
3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	114	56	469	97	498		
Future Volume (vph)	114	56	469	97	498		
Lane Group Flow (vph)	127	62	645	108	553		
Turn Type	Perm	Perm	NA	Perm	NA		
Protected Phases			2		6	1	7
Permitted Phases	8	8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (%)	32.5%	32.5%	55.0%	55.0%	55.0%	6%	6%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	12.9	12.9	58.5	58.5	58.5		
Actuated g/C Ratio	0.16	0.16	0.73	0.73	0.73		
v/c Ratio	0.55	0.27	0.32	0.25	0.24		
Control Delay (s/veh)	39.5	11.0	5.5	7.9	5.4		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	39.5	11.0	5.5	7.9	5.4		
LOS	D	B	A	A	A		
Approach Delay (s/veh)	30.1		5.5		5.8		
Approach LOS	C		A		A		
Queue Length 50th (m)	18.1	0.0	16.5	5.5	14.5		
Queue Length 95th (m)	32.0	9.2	30.5	16.1	26.2		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	351	313	2045	425	2297		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.36	0.20	0.32	0.25	0.24		

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay (s/veh): 8.8 — Intersection LOS: A
Intersection Capacity Utilization 58.7% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition



6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	56	21	685	747	
Future Volume (vph)	56	21	685	747	
Lane Group Flow (vph)	89	0	784	936	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.1		60.2	60.2	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.37		0.41	0.48	
Control Delay (s/veh)	31.5		9.1	8.0	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	31.5		9.1	8.0	
LOS	C		A	A	
Approach Delay (s/veh)	31.5		9.1	8.0	
Approach LOS	C		A	A	
Queue Length 50th (m)	10.6		26.8	34.8	
Queue Length 95th (m)	24.2		m41.3	47.8	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	275		1910	1958	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.32		0.41	0.48	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay (s/veh): 9.6 — Intersection LOS: A
Intersection Capacity Utilization 56.6% — ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø6	Ø7
Lane Configurations											
Traffic Volume (vph)	52	80	16	82	14	424	206	744			
Future Volume (vph)	52	80	16	82	14	424	206	744			
Lane Group Flow (vph)	0	180	0	383	0	510	0	1159			
Turn Type	Perm	NA	Perm	NA	Perm	NA	custom	NA			
Protected Phases		4		8		2	1	1 6	3	6	7
Permitted Phases	4		8		2		6				
Detector Phase	4	4	8	8	2	2	1	1 6			
Switch Phase											
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0		1.0	17.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0		5.0	60.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0		5.0	43.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%		6%	48%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		2.0	3.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9		0.0	3.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0					
Total Lost Time (s)		5.6		5.6		6.0					
Lead/Lag	Lag	Lag	Lag	Lag					Lead		Lead
Lead-Lag Optimize?			Yes	Yes							Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None		None	C-Max	None
Act Effct Green (s)		24.4		24.4		37.0		48.2			
Actuated g/C Ratio		0.27		0.27		0.41		0.54			
v/c Ratio		0.69		0.95		0.45		0.94			
Control Delay (s/veh)		45.2		57.6		20.4		28.5			
Queue Delay		0.0		0.0		0.0		0.0			
Total Delay (s/veh)		45.2		57.6		20.4		28.5			
LOS		D		E		C		C			
Approach Delay (s/veh)		45.2		57.6		20.4		28.5			
Approach LOS		D		E		C		C			
Queue Length 50th (m)		27.8		45.8		32.2		65.3			
Queue Length 95th (m)		#57.1		#101.8		45.7		#109.8			
Internal Link Dist (m)		75.1		136.0		63.1		79.0			
Turn Bay Length (m)											
Base Capacity (vph)		261		403		1145		1228			
Starvation Cap Reductn		0		0		0		0			
Spillback Cap Reductn		0		0		0		0			
Storage Cap Reductn		0		0		0		0			
Reduced v/c Ratio		0.69		0.95		0.45		0.94			

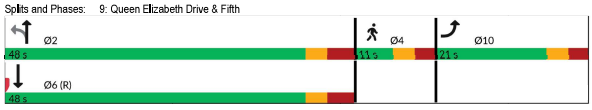
Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay (s/veh): 33.0 Intersection LOS: C
Intersection Capacity Utilization 95.3% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	35	45	198	527	
Future Volume (vph)	35	45	198	527	
Lane Group Flow (vph)	98	0	270	658	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	11.5		56.0	56.0	
Actuated g/C Ratio	0.14		0.70	0.70	
v/c Ratio	0.45		0.28	0.57	
Control Delay (s/veh)	37.9		5.6	8.7	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	37.9		5.6	8.7	
LOS	D		A	A	
Approach Delay (s/veh)	37.9		5.6	8.7	
Approach LOS	D		A	A	
Queue Length 50th (m)	14.1		12.0	39.0	
Queue Length 95th (m)	26.6		25.7	77.5	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	290		977	1163	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.34		0.28	0.57	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.57
Intersection Signal Delay (s/veh): 10.7 Intersection LOS: B
Intersection Capacity Utilization 70.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 9: Queen Elizabeth Drive & Fifth



Intersection	
Int Delay, s/veh	12.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	233	213	558	570	49
Future Vol, veh/h	3	233	213	558	570	49
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	3	259	237	620	633	54

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1622	839	866	0	-	0
Stage 1	839	-	-	-	-	-
Stage 2	783	-	-	-	-	-
Critical Hdwy	6.675	6.275	4.175	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	2.2475	-	-	-
Pot Cap-1 Maneuver	100	359	760	-	-	-
Stage 1	417	-	-	-	-	-
Stage 2	406	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	36	291	617	-	-	-
Mov Cap-2 Maneuver	36	-	-	-	-	-
Stage 1	181	-	-	-	-	-
Stage 2	329	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	66.86	6.73	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	510	-	291	-	-
HCM Lane V/C Ratio	0.384	-	0.888	-	-
HCM Ctrl Dly (s/v)	14.4	3.8	66.9	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %ile Q(veh)	1.8	-	8	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	24	0	780	812	2
Future Vol, veh/h	0	24	0	780	812	2
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	0	27	0	867	902	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	989	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.275	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3475	-	-	-	-
Pot Cap-1 Maneuver	0	293	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	-	267	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	20	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	267	-	-
HCM Lane V/C Ratio	-	0.1	-	-
HCM Ctrl Dly (s/v)	-	20	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	63	59	56	257	495	97
Future Vol, veh/h	63	59	56	257	495	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	70	66	62	286	550	108

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1014	604	658	0	-	0
Stage 1	604	-	-	-	-	-
Stage 2	410	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	267	502	940	-	-	-
Stage 1	550	-	-	-	-	-
Stage 2	674	-	-	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	246	502	940	-	-	-
Mov Cap-2 Maneuver	246	-	-	-	-	-
Stage 1	506	-	-	-	-	-
Stage 2	674	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	23.65	1.63	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	322	-	326	-	-
HCM Lane V/C Ratio	0.066	-	0.415	-	-
HCM Ctrl Dly (s/v)	9.1	0	23.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	2	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	74	542	7	1	597
Future Vol, veh/h	5	74	542	7	1	597
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	15	6	0	0	5
Mvmt Flow	6	82	602	8	1	663

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1040	405	0	0	710	0
Stage 1	706	-	-	-	-	-
Stage 2	334	-	-	-	-	-
Critical Hdwy	6.8	7.2	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.45	-	-	2.2	-
Pot Cap-1 Maneuver	229	560	-	-	899	-
Stage 1	456	-	-	-	-	-
Stage 2	703	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	205	501	-	-	803	-
Mov Cap-2 Maneuver	205	-	-	-	-	-
Stage 1	408	-	-	-	-	-
Stage 2	702	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	13.59	0	0.02
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	501	803	-
HCM Lane V/C Ratio	-	-	0.164	0.001	-
HCM Ctrl Dly (s/v)	-	-	13.6	9.5	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	210	0	0	174	0	0
Future Vol, veh/h	210	0	0	174	0	0
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	233	0	0	193	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	333	0	627	433
Stage 1	-	-	-	-	333	-
Stage 2	-	-	-	-	293	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1226	-	448	622
Stage 1	-	-	-	-	726	-
Stage 2	-	-	-	-	757	-
Platoon blocked, %	-	-			-	
Mov Cap-1 Maneuver	-	-	1096	-	358	498
Mov Cap-2 Maneuver	-	-	-	-	358	-
Stage 1	-	-	-	-	649	-
Stage 2	-	-	-	-	677	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1096	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	94	58	24	129	65	39
Future Vol, veh/h	94	58	24	129	65	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	104	64	27	143	72	43

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	170	0	-	0	372	98
Stage 1	-	-	-	-	98	-
Stage 2	-	-	-	-	273	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1407	-	-	-	629	958
Stage 1	-	-	-	-	926	-
Stage 2	-	-	-	-	773	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1407	-	-	-	581	958
Mov Cap-2 Maneuver	-	-	-	-	581	-
Stage 1	-	-	-	-	854	-
Stage 2	-	-	-	-	773	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	4.8	0	11.36
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1113	-	-	-	681
HCM Lane V/C Ratio	0.074	-	-	-	0.17
HCM Ctrl Dly (s/v)	7.8	0	-	-	11.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6

2028 – SATURDAY

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	40	48	0	0	0	93	58	39	36	0	0	104
Future Vol, veh/h	40	48	0	0	0	93	58	39	36	0	0	104
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	44	53	0	0	0	103	64	43	40	0	0	116
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.4	7.6	8.4	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	44%	45%	0%	0%
Vol Thru, %	29%	55%	0%	0%
Vol Right, %	27%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	133	88	93	104
LT Vol	58	40	0	0
Through Vol	39	48	0	0
RT Vol	36	0	93	104
Lane Flow Rate	148	98	103	116
Geometry Grp	1	1	1	1
Degree of Util (X)	0.182	0.128	0.115	0.127
Departure Headway (Hd)	4.425	4.704	4.022	3.949
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	811	763	891	908
Service Time	2.446	2.729	2.047	1.97
HCM Lane V/C Ratio	0.182	0.128	0.116	0.128
HCM Control Delay, s/veh	8.4	8.4	7.6	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.4	0.4	0.4

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	205	137	5	5	5
Future Vol, veh/h	5	205	137	5	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	228	152	6	6	6
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	8.6	8.1	7.6
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	0%	50%
Vol Thru, %	98%	96%	0%
Vol Right, %	0%	4%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	210	142	10
LT Vol	5	0	5
Through Vol	205	137	0
RT Vol	0	5	5
Lane Flow Rate	233	158	11
Geometry Grp	1	1	1
Degree of Util (X)	0.264	0.18	0.014
Departure Headway (Hd)	4.076	4.106	4.568
Convergence, Y/N	Yes	Yes	Yes
Cap	877	868	788
Service Time	2.117	2.162	2.568
HCM Lane V/C Ratio	0.266	0.182	0.014
HCM Control Delay, s/veh	8.6	8.1	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.1	0.7	0

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	15	5	5	72	5	5
Future Vol, veh/h	15	5	5	72	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	6	6	80	6	6
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7	7.4	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	6%
Vol Thru, %	0%	75%	94%
Vol Right, %	50%	25%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	10	20	77
LT Vol	5	0	5
Through Vol	0	15	72
RT Vol	5	5	0
Lane Flow Rate	11	22	86
Geometry Grp	1	1	1
Degree of Util (X)	0.012	0.024	0.095
Departure Headway (Hd)	3.92	3.867	3.983
Convergence, Y/N	Yes	Yes	Yes
Cap	908	926	903
Service Time	1.965	1.887	1.991
HCM Lane V/C Ratio	0.012	0.024	0.095
HCM Control Delay, s/veh	7	7	7.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0.1	0.3

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	15	5	86	5	155	106
Future Vol, veh/h	15	5	86	5	155	106
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	6	96	6	172	118
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.7	8.6	9.2
HCM LOS	A	A	A

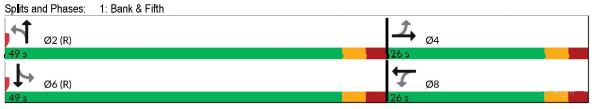
Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	59%	0%	95%
Vol Thru, %	0%	75%	5%
Vol Right, %	41%	25%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	261	20	91
LT Vol	155	0	86
Through Vol	0	15	5
RT Vol	106	5	0
Lane Flow Rate	290	22	101
Geometry Grp	1	1	1
Degree of Util (X)	0.332	0.028	0.135
Departure Headway (Hd)	4.125	4.549	4.79
Convergence, Y/N	Yes	Yes	Yes
Cap	876	788	750
Service Time	2.125	2.569	2.807
HCM Lane V/C Ratio	0.331	0.028	0.135
HCM Control Delay, s/veh	9.2	7.7	8.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.5	0.1	0.5

1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	45	40	72	44	21	466	20	515
Future Volume (vph)	45	40	72	44	21	466	20	515
Lane Group Flow (vph)	0	141	80	105	0	578	0	624
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		12.0	12.0	12.0		52.0		52.0
Actuated g/C Ratio		0.16	0.16	0.16		0.69		0.69
v/c Ratio		0.64	0.50	0.40		0.30		0.32
Control Delay (s/veh)		34.7	38.2	18.3		4.8		5.6
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		34.7	38.2	18.3		4.8		5.6
LOS		C	D	B		A		A
Approach Delay (s/veh)		34.7		26.9		4.8		5.6
Approach LOS		C		C		A		A
Queue Length 50th (m)		14.3	10.5	6.1		12.2		14.7
Queue Length 95th (m)		28.5	21.0	17.3		22.4		29.2
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		354	272	414		1902		1943
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.40	0.29	0.25		0.30		0.32

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay (s/veh): 10.6 Intersection LOS: B
Intersection Capacity Utilization 56.9% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth

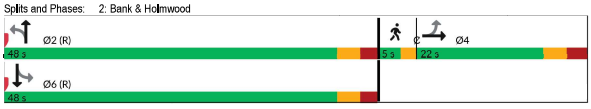


2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	9	28	483	30	533	
Future Volume (vph)	9	28	483	30	533	
Lane Group Flow (vph)	110	0	617	0	651	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	11.6		56.1		56.1	
Actuated g/C Ratio	0.15		0.75		0.75	
v/c Ratio	0.55		0.31		0.32	
Control Delay (s/veh)	38.8		2.3		3.4	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.8		2.3		3.4	
LOS	D		A		A	
Approach Delay (s/veh)	38.8		2.3		3.4	
Approach LOS	D		A		A	
Queue Length 50th (m)	14.6		3.3		12.9	
Queue Length 95th (m)	27.2		8.3		17.2	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	284		1968		2031	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.39		0.31		0.32	

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay (s/veh): 5.7 Intersection LOS: A
Intersection Capacity Utilization 63.9% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	75	59	444	104	474		
Future Volume (vph)	75	59	444	104	474		
Lane Group Flow (vph)	83	66	603	116	527		
Turn Type	Prot	Perm	NA	Perm	NA		
Protected Phases	8		2		6	1	7
Permitted Phases		8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	39.0	39.0	39.0	5.0	5.0
Total Split (s)	26.0	26.0	39.0	39.0	39.0	5.0	5.0
Total Split (%)	34.7%	34.7%	52.0%	52.0%	52.0%	7%	7%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	3.5
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	10.8	10.8	55.6	55.6	55.6		
Actuated g/C Ratio	0.14	0.14	0.74	0.74	0.74		
v/c Ratio	0.37	0.31	0.29	0.26	0.23		
Control Delay (s/veh)	33.9	12.0	4.6	4.8	3.2		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	33.9	12.0	4.6	4.8	3.2		
LOS	C	B	A	A	A		
Approach Delay (s/veh)	24.2		4.6		3.5		
Approach LOS	C		A		A		
Queue Length 50th (m)	10.9	0.0	13.3	3.8	8.8		
Queue Length 95th (m)	22.2	9.7	23.3	7.5	13.0		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	405	338	2092	448	2330		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.20	0.20	0.29	0.26	0.23		

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 60 (80%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.37
Intersection Signal Delay (s/veh): 6.2 Intersection LOS: A
Intersection Capacity Utilization 58.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition

6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	38	18	667	705	
Future Volume (vph)	38	18	667	705	
Lane Group Flow (vph)	54	0	761	850	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	19.5	35.2	35.2	35.2	4.0
Total Split (s)	20.0	65.0	65.0	65.0	5.0
Total Split (%)	22.2%	72.2%	72.2%	72.2%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.0		60.3	60.3	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.23		0.39	0.42	
Control Delay (s/veh)	30.2		5.2	7.4	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	30.2		5.2	7.4	
LOS	C		A	A	
Approach Delay (s/veh)	30.2		5.2	7.4	
Approach LOS	C		A	A	
Queue Length 50th (m)	6.4		19.7	30.3	
Queue Length 95th (m)	16.7		25.4	41.0	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	244		1934	2004	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.22		0.39	0.42	

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 28 (31%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.42
Intersection Signal Delay (s/veh): 7.1 Intersection LOS: A
Intersection Capacity Utilization 53.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	41	37	20	57	29	481	82	537		
Future Volume (vph)	41	37	20	57	29	481	82	537		
Lane Group Flow (vph)	0	135	0	195	0	602	0	749		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	20.0	20.0	20.0	20.0	54.0	54.0	11.0	54.0	5.0	5.0
Total Split (s)	20.0	20.0	20.0	20.0	54.0	54.0	11.0	54.0	5.0	5.0
Total Split (%)	22.2%	22.2%	22.2%	22.2%	60.0%	60.0%	12.2%	60.0%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		18.8		18.8		59.6		59.6		
Actuated g/C Ratio		0.21		0.21		0.66		0.66		
v/c Ratio		0.62		0.66		0.34		0.48		
Control Delay (s/veh)		45.7		33.4		7.2		6.6		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		45.7		33.4		7.2		6.6		
LOS		D		C		A		A		
Approach Delay (s/veh)		45.7		33.4		7.2		6.6		
Approach LOS		D		C		A		A		
Queue Length 50th (m)		21.1		20.8		21.0		16.7		
Queue Length 95th (m)		#41.1		#44.0		29.4		21.1		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		218		297		1790		1545		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.62		0.66		0.34		0.48		

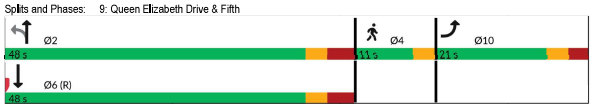
Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 33 (37%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay (s/veh): 13.1 Intersection LOS: B
Intersection Capacity Utilization 71.0% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	54	52	248	358	
Future Volume (vph)	54	52	248	358	
Lane Group Flow (vph)	113	0	334	456	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	12.0		55.5	55.5	
Actuated g/C Ratio	0.15		0.69	0.69	
v/c Ratio	0.49		0.33	0.40	
Control Delay (s/veh)	38.3		6.3	6.8	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	38.3		6.3	6.8	
LOS	D		A	A	
Approach Delay (s/veh)	38.3		6.3	6.8	
Approach LOS	D		A	A	
Queue Length 50th (m)	16.2		16.1	23.3	
Queue Length 95th (m)	29.4		33.7	46.9	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	296		1016	1150	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.38		0.33	0.40	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.49
Intersection Signal Delay (s/veh): 10.5 Intersection LOS: B
Intersection Capacity Utilization 64.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 9: Queen Elizabeth Drive & Fifth



Intersection	
Int Delay, s/veh	6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	177	116	557	513	55
Future Vol, veh/h	3	177	116	557	513	55
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	3	197	129	619	570	61

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1346	779	809	0	-	0
Stage 1	779	-	-	-	-	-
Stage 2	567	-	-	-	-	-
Critical Hdwy	6.675	6.275	4.175	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	2.2475	-	-	-
Pot Cap-1 Maneuver	151	389	798	-	-	-
Stage 1	445	-	-	-	-	-
Stage 2	525	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	76	316	648	-	-	-
Mov Cap-2 Maneuver	76	-	-	-	-	-
Stage 1	274	-	-	-	-	-
Stage 2	426	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	33.51	3.73	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	537	-	316	-	-
HCM Lane V/C Ratio	0.199	-	0.623	-	-
HCM Ctrl Dly (s/v)	11.9	2	33.5	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q(veh)	0.7	-	3.9	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	32	0	662	682	0
Future Vol, veh/h	1	32	0	662	682	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	1	36	0	736	758	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1126	758	-	0	-	0
Stage 1	758	-	-	-	-	-
Stage 2	368	-	-	-	-	-
Critical Hdwy	6.675	6.275	-	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	-	-	-	-
Pot Cap-1 Maneuver	208	400	0	-	-	0
Stage 1	455	-	0	-	-	0
Stage 2	664	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	208	400	-	-	-	-
Mov Cap-2 Maneuver	208	-	-	-	-	-
Stage 1	455	-	-	-	-	-
Stage 2	664	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	14.88	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	400	-
HCM Lane V/C Ratio	-	0.089	-
HCM Ctrl Dly (s/v)	-	14.9	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.3	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	85	61	65	210	252	155
Future Vol, veh/h	85	61	65	210	252	155
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	94	68	72	233	280	172

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	744	366	452	0	-	0
Stage 1	366	-	-	-	-	-
Stage 2	378	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	385	684	1119	-	-	-
Stage 1	706	-	-	-	-	-
Stage 2	697	-	-	-	-	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	356	684	1119	-	-	-
Mov Cap-2 Maneuver	356	-	-	-	-	-
Stage 1	654	-	-	-	-	-
Stage 2	697	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	17.63	1.99	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	425	-	446	-	-
HCM Lane V/C Ratio	0.065	-	0.364	-	-
HCM Ctrl Dly (s/v)	8.4	0	17.6	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.6	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	71	494	19	2	577
Future Vol, veh/h	6	71	494	19	2	577
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	15	6	0	0	5
Mvmt Flow	7	79	549	21	2	641

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	984	385	0	0	670	0
Stage 1	659	-	-	-	-	-
Stage 2	325	-	-	-	-	-
Critical Hdwy	6.8	7.2	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.45	-	-	2.2	-
Pot Cap-1 Maneuver	249	578	-	-	930	-
Stage 1	482	-	-	-	-	-
Stage 2	711	-	-	-	-	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	222	517	-	-	831	-
Mov Cap-2 Maneuver	222	-	-	-	-	-
Stage 1	431	-	-	-	-	-
Stage 2	708	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	13.22	0	0.03
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	517	831	-
HCM Lane V/C Ratio	-	-	0.153	0.003	-
HCM Ctrl Dly (s/v)	-	-	13.2	9.3	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	205	0	0	137	0	0
Future Vol, veh/h	205	0	0	137	0	0
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	228	0	0	152	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	328	0	580	428
Stage 1	-	-	-	-	328	-
Stage 2	-	-	-	-	252	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1232	-	477	627
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	790	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1101	-	381	501
Mov Cap-2 Maneuver	-	-	-	-	381	-
Stage 1	-	-	-	-	653	-
Stage 2	-	-	-	-	706	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1101	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	91	31	74	146	123	72
Future Vol, veh/h	91	31	74	146	123	72
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	101	34	82	162	137	80

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	244	0	-	0	400	163
Stage 1	-	-	-	-	163	-
Stage 2	-	-	-	-	237	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1322	-	-	-	606	881
Stage 1	-	-	-	-	866	-
Stage 2	-	-	-	-	803	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1322	-	-	-	559	881
Mov Cap-2 Maneuver	-	-	-	-	559	-
Stage 1	-	-	-	-	798	-
Stage 2	-	-	-	-	803	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	5.93	0	13.36
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1296	-	-	-	646
HCM Lane V/C Ratio	0.076	-	-	-	0.335
HCM Ctrl Dly (s/v)	7.9	0	-	-	13.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.5

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Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	250	164	5	5	5
Future Vol, veh/h	5	250	164	5	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	278	182	6	6	6
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	9.1	8.4	7.8
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	2%	0%	50%
Vol Thru, %	98%	97%	0%
Vol Right, %	0%	3%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	255	169	10
LT Vol	5	0	5
Through Vol	250	164	0
RT Vol	0	5	5
Lane Flow Rate	283	188	11
Geometry Grp	1	1	1
Degree of Util (X)	0.322	0.216	0.015
Departure Headway (Hd)	4.097	4.147	4.736
Convergence, Y/N	Yes	Yes	Yes
Cap	873	856	760
Service Time	2.149	2.216	2.736
HCM Lane V/C Ratio	0.324	0.22	0.014
HCM Control Delay, s/veh	9.1	8.4	7.8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.4	0.8	0

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	14	5	5	163	5	5
Future Vol, veh/h	14	5	5	163	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	6	6	181	6	6
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.1	8	7.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	3%
Vol Thru, %	0%	74%	97%
Vol Right, %	50%	26%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	10	19	168
LT Vol	5	0	5
Through Vol	0	14	163
RT Vol	5	5	0
Lane Flow Rate	11	21	187
Geometry Grp	1	1	1
Degree of Util (X)	0.013	0.023	0.206
Departure Headway (Hd)	4.093	3.934	3.976
Convergence, Y/N	Yes	Yes	Yes
Cap	862	906	905
Service Time	2.177	1.974	1.985
HCM Lane V/C Ratio	0.013	0.023	0.207
HCM Control Delay, s/veh	7.2	7.1	8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0.1	0.8

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	14	5	56	3	188	130
Future Vol, veh/h	14	5	56	3	188	130
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	6	62	3	209	144
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.8	8.4	9.6
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	59%	0%	95%
Vol Thru, %	0%	74%	5%
Vol Right, %	41%	26%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	318	19	59
LT Vol	188	0	56
Through Vol	0	14	3
RT Vol	130	5	0
Lane Flow Rate	353	21	66
Geometry Grp	1	1	1
Degree of Util (X)	0.388	0.027	0.09
Departure Headway (Hd)	3.956	4.627	4.917
Convergence, Y/N	Yes	Yes	Yes
Cap	897	778	733
Service Time	2.034	2.63	2.918
HCM Lane V/C Ratio	0.394	0.027	0.09
HCM Control Delay, s/veh	9.6	7.8	8.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.9	0.1	0.3

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	68	81	0	0	0	227	99	66	61	0	0	103
Future Vol, veh/h	68	81	0	0	0	227	99	66	61	0	0	103
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	76	90	0	0	0	252	110	73	68	0	0	114
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10	9.6	10.7	8.6
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	44%	46%	0%	0%
Vol Thru, %	29%	54%	0%	0%
Vol Right, %	27%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	226	149	227	103
LT Vol	99	68	0	0
Through Vol	66	81	0	0
RT Vol	61	0	227	103
Lane Flow Rate	251	166	252	114
Geometry Grp	1	1	1	1
Degree of Util (X)	0.346	0.24	0.311	0.151
Departure Headway (Hd)	4.967	5.209	4.442	4.751
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	716	680	800	760
Service Time	3.06	3.307	2.53	2.751
HCM Lane V/C Ratio	0.351	0.244	0.315	0.15
HCM Control Delay, s/veh	10.7	10	9.6	8.6
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	1.5	0.9	1.3	0.5

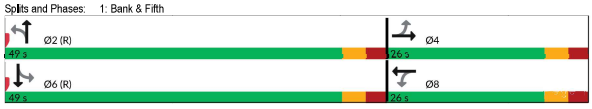
1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	53	37	127	65	15	466	22	481
Future Volume (vph)	53	37	127	65	15	466	22	481
Lane Group Flow (vph)	0	129	141	114	0	577	0	604
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		14.7	14.7	14.7		49.3		49.3
Actuated g/C Ratio		0.20	0.20	0.20		0.66		0.66
v/c Ratio		0.53	0.68	0.36		0.32		0.33
Control Delay (s/veh)		29.7	43.5	19.7		8.2		6.8
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		29.7	43.5	19.7		8.2		6.8
LOS		C	D	B		A		A
Approach Delay (s/veh)		29.7		32.9		8.2		6.8
Approach LOS		C		C		A		A
Queue Length 50th (m)		13.9	18.5	9.0		33.8		16.5
Queue Length 95th (m)		26.9	33.2	20.2		52.8		30.9
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		333	290	424		1820		1807
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.39	0.49	0.27		0.32		0.33

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 42 (56%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay (s/veh): 13.4 — Intersection LOS: B
Intersection Capacity Utilization 58.2% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth



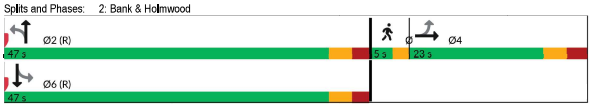
2: Bank & Holmwood

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations							
Traffic Volume (vph)	17	0	32	504	22	522	
Future Volume (vph)	17	0	32	504	22	522	
Lane Group Flow (vph)	109	2	0	685	0	643	
Turn Type	NA		Perm	NA	Perm	NA	
Protected Phases	4			2		6	3
Permitted Phases			2		6		
Detector Phase	4		2	2	6	6	
Switch Phase							
Minimum Initial (s)	4.4		10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	23.0		47.0	47.0	47.0	47.0	5.0
Total Split (s)	23.0		47.0	47.0	47.0	47.0	5.0
Total Split (%)	30.7%		62.7%	62.7%	62.7%	62.7%	7%
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6		2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0			0.0		0.0	
Total Lost Time (s)	5.6			5.2		5.2	
Lead/Lag	Lag						Lead
Lead-Lag Optimize?							
Recall Mode	None		C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	11.5	0.0		56.1		56.1	
Actuated g/C Ratio	0.15	0.00		0.75		0.75	
v/c Ratio	0.55	0.01		0.36		0.31	
Control Delay (s/veh)	38.5	0.0		7.8		8.5	
Queue Delay	0.0	0.0		0.0		0.0	
Total Delay (s/veh)	38.5	0.0		7.8		8.5	
LOS	D	A		A		A	
Approach Delay (s/veh)	38.5			7.8		8.5	
Approach LOS	D			A		A	
Queue Length 50th (m)	14.4	0.0		32.2		22.3	
Queue Length 95th (m)	26.9	0.0		53.2		44.5	
Internal Link Dist (m)	39.8	116.8		31.5		195.6	
Turn Bay Length (m)							
Base Capacity (vph)	304	143		1895		2052	
Starvation Cap Reductn	0	0		0		0	
Spillback Cap Reductn	0	0		0		0	
Storage Cap Reductn	0	0		0		0	
Reduced v/c Ratio	0.36	0.01		0.36		0.31	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 16 (21%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay (s/veh): 10.4 — Intersection LOS: B
Intersection Capacity Utilization Err% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



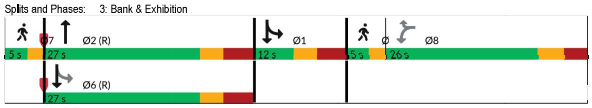
3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø3	Ø6	Ø7
Lane Configurations								
Traffic Volume (vph)	109	51	407	151	440			
Future Volume (vph)	109	51	407	151	440			
Lane Group Flow (vph)	121	57	559	168	489			
Turn Type	Perm	Perm	NA	custom	NA			
Protected Phases			2	1	16	3	6	7
Permitted Phases	8	8		6				
Detector Phase	8	8	2	1	16			
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	1.0		3.0	10.0	3.0
Minimum Split (s)	26.0	26.0	27.0	7.9		5.0	27.0	5.0
Total Split (s)	26.0	26.0	27.0	12.0		5.0	27.0	5.0
Total Split (%)	34.7%	34.7%	36.0%	16.0%		7%	36%	7%
Yellow Time (s)	3.3	3.3	3.0	3.0		2.0	3.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9		0.0	3.9	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0				
Total Lost Time (s)	6.3	6.3	6.9	6.9				
Lead/Lag	Lag	Lag				Lead		
Lead-Lag Optimize?	Yes	Yes				Yes		
Recall Mode	None	None	C-Max	None		None	C-Max	None
Act Effct Green (s)	12.3	12.3	40.7	45.8	54.1			
Actuated g/C Ratio	0.16	0.16	0.54	0.61	0.72			
v/c Ratio	0.51	0.25	0.36	0.38	0.22			
Control Delay (s/veh)	36.0	10.5	11.5	11.2	5.2			
Queue Delay	0.0	0.0	0.0	0.0	0.0			
Total Delay (s/veh)	36.0	10.5	11.5	11.2	5.2			
LOS	D	B	B	B	A			
Approach Delay (s/veh)	27.8		11.5		6.8			
Approach LOS	C		B		A			
Queue Length 50th (m)	16.0	0.0	21.9	6.3	10.5			
Queue Length 95th (m)	29.0	8.6	38.0	23.3	26.2			
Internal Link Dist (m)	30.6		33.7		44.8			
Turn Bay Length (m)				40.0				
Base Capacity (vph)	377	331	1532	445	2266			
Starvation Cap Reductn	0	0	0	0	0			
Spillback Cap Reductn	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0			
Reduced v/c Ratio	0.32	0.17	0.36	0.38	0.22			

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.51
Intersection Signal Delay (s/veh): 11.3 — Intersection LOS: B
Intersection Capacity Utilization 58.1% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition



6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	53	16	584	643	
Future Volume (vph)	53	16	584	643	
Lane Group Flow (vph)	81	0	667	776	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	4.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	None	C-Max	C-Max	C-Max	None
Act Effct Green (s)	11.0		72.4	72.4	
Actuated g/C Ratio	0.12		0.80	0.80	
v/c Ratio	0.43		0.29	0.32	
Control Delay (s/veh)	36.0		8.4	3.6	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	36.0		8.4	3.6	
LOS	D		A	A	
Approach Delay (s/veh)	36.0		8.4	3.6	
Approach LOS	D		A	A	
Queue Length 50th (m)	10.3		41.4	16.5	
Queue Length 95th (m)	23.1		58.7	28.4	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	276		2334	2401	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.29		0.29	0.32	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.43
Intersection Signal Delay (s/veh): 7.4 — Intersection LOS: A
Intersection Capacity Utilization 49.7% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø6	Ø7
Lane Configurations											
Traffic Volume (vph)	42	33	15	50	18	460	115	497			
Future Volume (vph)	42	33	15	50	18	460	115	497			
Lane Group Flow (vph)	0	117	0	190	0	543	0	771			
Turn Type	Perm	NA	Perm	NA	Perm	NA	custom	NA			
Protected Phases		4		8		2	1	1 6	3	6	7
Permitted Phases	4		8		2		6				
Detector Phase	4	4	8	8	2	2	1	1 6			
Switch Phase											
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0		1.0	17.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0		5.0	43.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0		5.0	43.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%		6%	48%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		2.0	3.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9		0.0	3.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0					
Total Lost Time (s)		5.6		5.6		6.0					
Lead/Lag	Lag	Lag	Lag	Lag					Lead		Lead
Lead-Lag Optimize?			Yes	Yes							Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None		None	C-Max	None
Act Effct Green (s)		15.0		15.0		44.1		57.6			
Actuated g/C Ratio		0.17		0.17		0.49		0.64			
v/c Ratio		0.78		0.70		0.39		0.51			
Control Delay (s/veh)		66.7		33.0		16.9		13.4			
Queue Delay		0.0		0.0		0.0		0.0			
Total Delay (s/veh)		66.7		33.0		16.9		13.4			
LOS		E		C		B		B			
Approach Delay (s/veh)		66.7		33.0		16.9		13.4			
Approach LOS		E		C		B		B			
Queue Length 50th (m)		19.6		17.4		30.2		41.3			
Queue Length 95th (m)		35.1		36.5		48.7		65.8			
Internal Link Dist (m)		75.1		136.0		63.1		79.0			
Turn Bay Length (m)											
Base Capacity (vph)		200		335		1403		1528			
Starvation Cap Reductn		0		0		0		0			
Spillback Cap Reductn		0		0		0		0			
Storage Cap Reductn		0		0		0		0			
Reduced v/c Ratio		0.59		0.57		0.39		0.50			

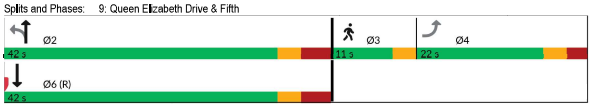
Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 23 (26%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay (s/veh): 20.7		Intersection LOS: C	
Intersection Capacity Utilization 73.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	12	215	19	22	
Future Volume (vph)	12	215	19	22	
Lane Group Flow (vph)	182	0	260	53	
Turn Type	Perm	Perm	NA	NA	
Protected Phases			2	6	3
Permitted Phases	4	2			
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	42.0	42.0	42.0	9.7
Total Split (s)	22.0	42.0	42.0	42.0	11.0
Total Split (%)	29.3%	56.0%	56.0%	56.0%	15%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?	Yes				Yes
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	14.6		47.9	47.9	
Actuated g/C Ratio	0.19		0.64	0.64	
v/c Ratio	0.64		0.34	0.05	
Control Delay (s/veh)	37.4		8.7	6.4	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	37.4		8.7	6.4	
LOS	D		A	A	
Approach Delay (s/veh)	37.4		8.7	6.4	
Approach LOS	D		A	A	
Queue Length 50th (m)	24.0		14.7	2.4	
Queue Length 95th (m)	39.4		33.7	7.4	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	335		759	996	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.54		0.34	0.05	

Intersection Summary			
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay (s/veh): 19.0		Intersection LOS: B	
Intersection Capacity Utilization 41.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: Queen Elizabeth Drive & Fifth



Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	152	107	540	491	60
Future Vol, veh/h	5	152	107	540	491	60
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	6	169	119	600	546	67

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1295	757	790	0	-	0
Stage 1	757	-	-	-	-	-
Stage 2	538	-	-	-	-	-
Critical Hdwy	6.675	6.275	4.175	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	2.2475	-	-	-
Pot Cap-1 Maneuver	163	400	812	-	-	-
Stage 1	455	-	-	-	-	-
Stage 2	544	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	84	325	659	-	-	-
Mov Cap-2 Maneuver	84	-	-	-	-	-
Stage 1	290	-	-	-	-	-
Stage 2	441	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	27.46	3.44	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	549	-	325	-	-
HCM Lane V/C Ratio	0.18	-	0.52	-	-
HCM Ctrl Dly (s/v)	11.7	1.8	27.5	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q(veh)	0.7	-	2.8	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	69	0	621	647	1
Future Vol, veh/h	2	69	0	621	647	1
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	2	77	0	690	719	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1150	805	-	0	-	0
Stage 1	805	-	-	-	-	-
Stage 2	345	-	-	-	-	-
Critical Hdwy	6.675	6.275	-	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	-	-	-	-
Pot Cap-1 Maneuver	201	375	0	-	-	-
Stage 1	432	-	0	-	-	-
Stage 2	682	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	166	341	-	-	-	-
Mov Cap-2 Maneuver	166	-	-	-	-	-
Stage 1	393	-	-	-	-	-
Stage 2	620	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	18.59	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	341	-	-
HCM Lane V/C Ratio	-	0.225	-	-
HCM Ctrl Dly (s/v)	-	18.6	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.8	-	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	106	141	82	128	66	92
Future Vol, veh/h	106	141	82	128	66	92
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	118	157	91	142	73	102

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	449	124	176	0	-	0
Stage 1	124	-	-	-	-	-
Stage 2	324	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	571	932	1413	-	-	-
Stage 1	906	-	-	-	-	-
Stage 2	737	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	531	932	1413	-	-	-
Mov Cap-2 Maneuver	531	-	-	-	-	-
Stage 1	843	-	-	-	-	-
Stage 2	737	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	13.34	3.02	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	703	-	704	-	-
HCM Lane V/C Ratio	0.064	-	0.39	-	-
HCM Ctrl Dly (s/v)	7.7	0	13.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	1.9	-	-

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	159	461	19	0	582
Future Vol, veh/h	7	159	461	19	0	582
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	15	6	0	0	5
Mvmt Flow	8	177	512	21	0	647

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	946	367	0	0	-	-
Stage 1	623	-	-	-	-	-
Stage 2	323	-	-	-	-	-
Critical Hdwy	6.8	7.2	-	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.45	-	-	-	-
Pot Cap-1 Maneuver	263	594	-	-	0	-
Stage 1	503	-	-	-	0	-
Stage 2	712	-	-	-	0	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	236	531	-	-	-	-
Mov Cap-2 Maneuver	236	-	-	-	-	-
Stage 1	450	-	-	-	-	-
Stage 2	712	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	15.11	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	531	-
HCM Lane V/C Ratio	-	-	0.332	-
HCM Ctrl Dly (s/v)	-	-	15.1	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	1.4	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	250	0	0	164	0	0
Future Vol, veh/h	250	0	0	164	0	0
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	278	0	0	182	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	378	0	660	478
Stage 1	-	-	-	-	378	-
Stage 2	-	-	-	-	282	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1181	-	428	588
Stage 1	-	-	-	-	693	-
Stage 2	-	-	-	-	766	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1056	-	342	470
Mov Cap-2 Maneuver	-	-	-	-	342	-
Stage 1	-	-	-	-	620	-
Stage 2	-	-	-	-	685	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1056	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	8.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	110	51	54	121	198	67
Future Vol, veh/h	110	51	54	121	198	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	122	57	60	134	220	74

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	194	0	-	0	428	127
Stage 1	-	-	-	-	127	-
Stage 2	-	-	-	-	301	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1379	-	-	-	583	923
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	751	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1379	-	-	-	530	923
Mov Cap-2 Maneuver	-	-	-	-	530	-
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	751	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	5.37	0	16.87
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1230	-	-	-	594
HCM Lane V/C Ratio	0.089	-	-	-	0.496
HCM Ctrl Dly (s/v)	7.9	0	-	-	16.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	2.7

2028 – MINOR EVENT INGRESS

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	321	0	0	0	0	186
Future Vol, veh/h	321	0	0	0	0	186
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	357	0	0	0	0	207
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	11.4	0	8.6
HCM LOS	B	-	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	0%
Vol Thru, %	0%	100%	0%
Vol Right, %	0%	0%	100%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	321	0	186
LT Vol	321	0	0
Through Vol	0	0	0
RT Vol	0	0	186
Lane Flow Rate	357	0	207
Geometry Grp	1	1	1
Degree of Util (X)	0.457	0	0.241
Departure Headway (Hd)	4.609	4.796	4.204
Convergence, Y/N	Yes	Yes	Yes
Cap	785	0	854
Service Time	2.609	2.837	2.228
HCM Lane V/C Ratio	0.455	0	0.242
HCM Control Delay, s/veh	11.4	7.8	8.6
HCM Lane LOS	B	N	A
HCM 95th-tile Q	2.4	0	0.9

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	21	0	145	81	114	197
Future Vol, veh/h	21	0	145	81	114	197
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	0	161	90	127	219
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	8.3	10.4	10.4
HCM LOS	A	B	B

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	37%	0%	64%
Vol Thru, %	0%	100%	36%
Vol Right, %	63%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	311	21	226
LT Vol	114	0	145
Through Vol	0	21	81
RT Vol	197	0	0
Lane Flow Rate	346	23	251
Geometry Grp	1	1	1
Degree of Util (X)	0.414	0.033	0.34
Departure Headway (Hd)	4.318	5.039	4.872
Convergence, Y/N	Yes	Yes	Yes
Cap	833	707	736
Service Time	2.346	3.094	2.913
HCM Lane V/C Ratio	0.415	0.033	0.341
HCM Control Delay, s/veh	10.4	8.3	10.4
HCM Lane LOS	B	A	B
HCM 95th-tile Q	2.1	0.1	1.5

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	126	0	0	225	0	0
Future Vol, veh/h	126	0	0	225	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	140	0	0	250	0	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	8	8.6	0
HCM LOS	A	A	-

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	0%	0%	0%
Vol Thru, %	100%	100%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	0	126	225
LT Vol	0	0	0
Through Vol	0	126	225
RT Vol	0	0	0
Lane Flow Rate	0	140	250
Geometry Grp	1	1	1
Degree of Util (X)	0	0.16	0.28
Departure Headway (Hd)	4.763	4.119	4.037
Convergence, Y/N	Yes	Yes	Yes
Cap	0	867	890
Service Time	2.763	2.167	2.067
HCM Lane V/C Ratio	0	0.161	0.281
HCM Control Delay, s/veh	7.8	8	8.6
HCM Lane LOS	N	A	A
HCM 95th-tile Q	0	0.6	1.2

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	61	51	0	0	0	139	61	42	37	0	0	82
Future Vol, veh/h	61	51	0	0	0	139	61	42	37	0	0	82
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	68	57	0	0	0	154	68	47	41	0	0	91
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.7	7.9	8.7	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	44%	54%	0%	0%
Vol Thru, %	30%	46%	0%	0%
Vol Right, %	26%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	140	112	139	82
LT Vol	61	61	0	0
Through Vol	42	51	0	0
RT Vol	37	0	139	82
Lane Flow Rate	156	124	154	91
Geometry Grp	1	1	1	1
Degree of Util (X)	0.198	0.165	0.173	0.105
Departure Headway (Hd)	4.579	4.762	4.043	4.137
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	782	753	887	865
Service Time	2.611	2.794	2.072	2.172
HCM Lane V/C Ratio	0.199	0.165	0.174	0.105
HCM Control Delay, s/veh	8.7	8.7	7.9	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.6	0.6	0.4

1: Bank & Fifth

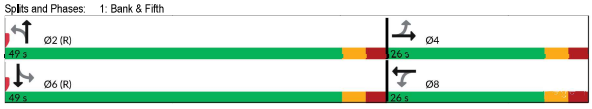
01/10/2025

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	52	58	74	46	16	479	26	548
Future Volume (vph)	52	58	74	46	16	479	26	548
Lane Group Flow (vph)	0	159	82	119	0	593	0	665
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		13.6	13.6	13.6		50.4		50.4
Actuated g/C Ratio		0.18	0.18	0.18		0.67		0.67
v/c Ratio		0.67	0.47	0.40		0.32		0.36
Control Delay (s/veh)		37.6	34.7	16.0		5.8		6.7
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		37.6	34.7	16.0		5.8		6.7
LOS		D	C	B		A		A
Approach Delay (s/veh)		37.6		23.6		5.8		6.7
Approach LOS		D		C		A		A
Queue Length 50th (m)		18.4	10.5	6.2		13.8		17.8
Queue Length 95th (m)		33.3	20.9	17.6		26.2		34.5
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		349	263	418		1852		1860
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.46	0.31	0.28		0.32		0.36

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay (s/veh): 11.5 — Intersection LOS: B
Intersection Capacity Utilization 62.8% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth



2: Bank & Holmwood

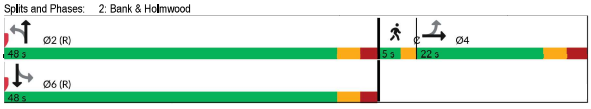
01/10/2025

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	26	52	490	24	544	
Future Volume (vph)	26	52	490	24	544	
Lane Group Flow (vph)	117	0	686	0	669	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	11.7		56.0		56.0	
Actuated g/C Ratio	0.16		0.75		0.75	
v/c Ratio	0.56		0.38		0.33	
Control Delay (s/veh)	38.5		5.5		3.2	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.5		5.5		3.2	
LOS	D		A		A	
Approach Delay (s/veh)	38.5		5.5		3.2	
Approach LOS	D		A		A	
Queue Length 50th (m)	15.5		16.4		12.4	
Queue Length 95th (m)	28.3		32.3		16.2	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	296		1787		2036	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.40		0.38		0.33	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay (s/veh): 7.1 — Intersection LOS: A
Intersection Capacity Utilization 66.5% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



3: Bank & Exhibition

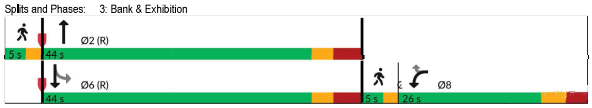
01/10/2025

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	104	72	425	145	423		
Future Volume (vph)	104	72	425	145	423		
Lane Group Flow (vph)	116	80	656	161	470		
Turn Type	Prot	Perm	NA	Perm	NA		
Protected Phases	8		2		6	1	7
Permitted Phases		8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (%)	32.5%	32.5%	55.0%	55.0%	55.0%	6%	6%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	12.1	12.1	59.3	59.3	59.3		
Actuated g/C Ratio	0.15	0.15	0.74	0.74	0.74		
v/c Ratio	0.50	0.35	0.33	0.38	0.20		
Control Delay (s/veh)	38.3	11.6	4.8	9.3	4.8		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	38.3	11.6	4.8	9.3	4.8		
LOS	D	B	A	A	A		
Approach Delay (s/veh)	27.4		4.8		6.0		
Approach LOS	C		A		A		
Queue Length 50th (m)	16.6	0.0	14.5	8.8	11.4		
Queue Length 95th (m)	30.1	10.7	27.3	25.1	20.6		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	379	326	1996	427	2330		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.31	0.25	0.33	0.38	0.20		

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.50
Intersection Signal Delay (s/veh): 8.3 — Intersection LOS: A
Intersection Capacity Utilization 61.1% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition



6: Bank & Aylmer

01/10/2025

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	72	19	687	511	
Future Volume (vph)	72	19	687	511	
Lane Group Flow (vph)	88	0	784	651	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.1		60.2	60.2	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.36		0.40	0.34	
Control Delay (s/veh)	36.7		5.4	6.5	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	36.7		5.4	6.5	
LOS	D		A	A	
Approach Delay (s/veh)	36.7		5.4	6.5	
Approach LOS	D		A	A	
Queue Length 50th (m)	13.0		20.0	20.6	
Queue Length 95th (m)	26.6		23.8	29.5	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	283		1944	1940	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.31		0.40	0.34	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.40
Intersection Signal Delay (s/veh): 7.7 — Intersection LOS: A
Intersection Capacity Utilization 55.1% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	57	52	18	59	20	473	106	540		
Future Volume (vph)	57	52	18	59	20	473	106	540		
Lane Group Flow (vph)	0	151	0	267	0	568	0	791		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	60.0	5.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	43.0	5.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%	47.8%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		21.1		21.1		57.3		57.3		
Actuated g/C Ratio		0.23		0.23		0.64		0.64		
v/c Ratio		0.71		0.76		0.32		0.56		
Control Delay (s/veh)		49.5		33.3		8.5		8.2		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		49.5		33.3		8.5		8.2		
LOS		D		C		A		A		
Approach Delay (s/veh)		49.5		33.3		8.5		8.2		
Approach LOS		D		C		A		A		
Queue Length 50th (m)		23.1		24.8		22.7		40.8		
Queue Length 95th (m)		#44.5		#53.8		32.7		59.8		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		225		364		1799		1405		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.67		0.73		0.32		0.56		

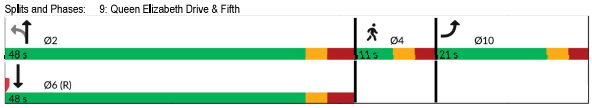
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay (s/veh): 15.6	Intersection LOS: B
Intersection Capacity Utilization 80.9%	ICU Level of Service D
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	51	66	227	537	
Future Volume (vph)	51	66	227	537	
Lane Group Flow (vph)	120	0	325	694	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	12.2		55.3	55.3	
Actuated g/C Ratio	0.15		0.69	0.69	
v/c Ratio	0.51		0.36	0.61	
Control Delay (s/veh)	38.6		7.0	10.0	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	38.6		7.0	10.0	
LOS	D		A	B	
Approach Delay (s/veh)	38.6		7.0	10.0	
Approach LOS	D		A	B	
Queue Length 50th (m)	17.2		16.5	45.5	
Queue Length 95th (m)	30.9		35.6	91.7	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	296		894	1142	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.41		0.36	0.61	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay (s/veh): 12.2	Intersection LOS: B
Intersection Capacity Utilization 76.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 9: Queen Elizabeth Drive & Fifth



Intersection	
Int Delay, s/veh	12.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	268	143	649	477	55
Future Vol, veh/h	5	268	143	649	477	55
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	6	298	159	721	530	61

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1417	739	769	0	-	0
Stage 1	739	-	-	-	-	-
Stage 2	678	-	-	-	-	-
Critical Hdwy	6.675	6.275	4.175	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	2.2475	-	-	-
Pot Cap-1 Maneuver	136	410	827	-	-	-
Stage 1	465	-	-	-	-	-
Stage 2	460	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	63	333	671	-	-	-
Mov Cap-2 Maneuver	63	-	-	-	-	-
Stage 1	265	-	-	-	-	-
Stage 2	373	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	62.12	4.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	537	-	333	-	-
HCM Lane V/C Ratio	0.237	-	0.894	-	-
HCM Ctrl Dly (s/v)	12	2.5	62.1	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.9	-	8.6	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	37	0	777	753	0
Future Vol, veh/h	4	37	0	777	753	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	4	41	0	863	837	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1268	837	-	0	-	0
Stage 1	837	-	-	-	-	-
Stage 2	432	-	-	-	-	-
Critical Hdwy	6.675	6.275	-	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	-	-	-	-
Pot Cap-1 Maneuver	169	360	0	-	-	0
Stage 1	417	-	0	-	-	0
Stage 2	616	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	169	360	-	-	-	-
Mov Cap-2 Maneuver	169	-	-	-	-	-
Stage 1	417	-	-	-	-	-
Stage 2	616	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	16.29	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	360	-
HCM Lane V/C Ratio	-	0.114	-
HCM Ctrl Dly (s/v)	-	16.3	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	0.4	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	79	59	120	217	326	275
Future Vol, veh/h	79	59	120	217	326	275
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	88	66	133	241	362	306

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1023	515	668	0	-	0
Stage 1	515	-	-	-	-	-
Stage 2	508	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	263	564	932	-	-	-
Stage 1	604	-	-	-	-	-
Stage 2	608	-	-	-	-	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	220	564	932	-	-	-
Mov Cap-2 Maneuver	220	-	-	-	-	-
Stage 1	504	-	-	-	-	-
Stage 2	608	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	29.29	3.39	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	641	-	298	-	-
HCM Lane V/C Ratio	0.143	-	0.515	-	-
HCM Ctrl Dly (s/v)	9.5	0	29.3	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.5	-	2.8	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	53	508	19	2	559
Future Vol, veh/h	0	53	508	19	2	559
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	15	6	0	0	5
Mvmt Flow	0	59	564	21	2	621

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	393	0	0	686	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.2	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.45	-	-	2.2	-
Pot Cap-1 Maneuver	0	571	-	-	917	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	510	-	-	820	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12.97	0	0.03
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	510	820	-
HCM Lane V/C Ratio	-	-	0.115	0.003	-
HCM Ctrl Dly (s/v)	-	-	13	9.4	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	316	0	0	176	0	0
Future Vol, veh/h	316	0	0	176	0	0
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	351	0	0	196	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	451	0	747	551
Stage 1	-	-	-	-	451	-
Stage 2	-	-	-	-	296	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1109	-	381	534
Stage 1	-	-	-	-	642	-
Stage 2	-	-	-	-	755	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	992	-	304	427
Mov Cap-2 Maneuver	-	-	-	-	304	-
Stage 1	-	-	-	-	574	-
Stage 2	-	-	-	-	675	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	992	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	99	27	156	239	111	69
Future Vol, veh/h	99	27	156	239	111	69
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	110	30	173	266	123	77

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	439	0	-	0	556	306
Stage 1	-	-	-	-	306	-
Stage 2	-	-	-	-	250	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1121	-	-	-	492	734
Stage 1	-	-	-	-	747	-
Stage 2	-	-	-	-	792	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1121	-	-	-	443	734
Mov Cap-2 Maneuver	-	-	-	-	443	-
Stage 1	-	-	-	-	672	-
Stage 2	-	-	-	-	792	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	6.73	0	16.11
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1102	-	-	-	522
HCM Lane V/C Ratio	0.098	-	-	-	0.383
HCM Ctrl Dly (s/v)	8.6	0	-	-	16.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	1.8

2028 – MINOR EVENT EGRESS

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	196	0	0	0	0	368
Future Vol, veh/h	196	0	0	0	0	368
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	218	0	0	0	0	409
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	10.1	0	10
HCM LOS	B	-	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	0%
Vol Thru, %	0%	100%	0%
Vol Right, %	0%	0%	100%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	196	0	368
LT Vol	196	0	0
Through Vol	0	0	0
RT Vol	0	0	368
Lane Flow Rate	218	0	409
Geometry Grp	1	1	1
Degree of Util (X)	0.3	0	0.444
Departure Headway (Hd)	4.965	5.063	3.907
Convergence, Y/N	Yes	Yes	Yes
Cap	723	0	924
Service Time	3.009	3.117	1.921
HCM Lane V/C Ratio	0.302	0	0.443
HCM Control Delay, s/veh	10.1	8.1	10
HCM Lane LOS	B	N	A
HCM 95th-tile Q	1.3	0	2.3

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	29	0	127	39	98	98
Future Vol, veh/h	29	0	127	39	98	98
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	0	141	43	109	109
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.9	9.1	8.7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	77%
Vol Thru, %	0%	100%	23%
Vol Right, %	50%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	196	29	166
LT Vol	98	0	127
Through Vol	0	29	39
RT Vol	98	0	0
Lane Flow Rate	218	32	184
Geometry Grp	1	1	1
Degree of Util (X)	0.257	0.042	0.236
Departure Headway (Hd)	4.254	4.639	4.615
Convergence, Y/N	Yes	Yes	Yes
Cap	847	772	780
Service Time	2.269	2.663	2.634
HCM Lane V/C Ratio	0.257	0.041	0.236
HCM Control Delay, s/veh	8.7	7.9	9.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1	0.1	0.9

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	86	0	0	166	0	0
Future Vol, veh/h	86	0	0	166	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	96	0	0	184	0	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.6	8.1	0
HCM LOS	A	A	-

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	0%	0%	0%
Vol Thru, %	100%	100%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	0	86	166
LT Vol	0	0	0
Through Vol	0	86	166
RT Vol	0	0	0
Lane Flow Rate	0	96	184
Geometry Grp	1	1	1
Degree of Util (X)	0	0.108	0.205
Departure Headway (Hd)	4.53	4.071	4.005
Convergence, Y/N	Yes	Yes	Yes
Cap	0	878	898
Service Time	2.53	2.105	2.024
HCM Lane V/C Ratio	0	0.109	0.205
HCM Control Delay, s/veh	7.5	7.8	8.1
HCM Lane LOS	N	A	A
HCM 95th-tile Q	0	0.4	0.8

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	44	0	0	0	66	10	10	49	0	0	97
Future Vol, veh/h	10	44	0	0	0	66	10	10	49	0	0	97
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	49	0	0	0	73	11	11	54	0	0	108
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.7	7.1	7.3	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	19%	0%	0%
Vol Thru, %	14%	81%	0%	0%
Vol Right, %	71%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	69	54	66	97
LT Vol	10	10	0	0
Through Vol	10	44	0	0
RT Vol	49	0	66	97
Lane Flow Rate	77	60	73	108
Geometry Grp	1	1	1	1
Degree of Util (X)	0.082	0.072	0.075	0.108
Departure Headway (Hd)	3.85	4.347	3.697	3.622
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	920	818	957	978
Service Time	1.917	2.407	1.765	1.69
HCM Lane V/C Ratio	0.084	0.073	0.076	0.11
HCM Control Delay, s/veh	7.3	7.7	7.1	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.2	0.2	0.4

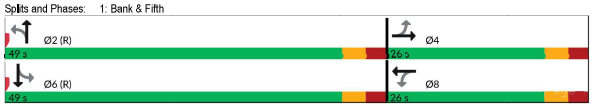
1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	42	9	58	25	16	441	21	350
Future Volume (vph)	42	9	58	25	16	441	21	350
Lane Group Flow (vph)	0	86	64	64	0	520	0	436
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		10.0	10.0	10.0		57.3		57.3
Actuated g/C Ratio		0.13	0.13	0.13		0.76		0.76
v/c Ratio		0.50	0.40	0.30		0.24		0.21
Control Delay (s/veh)		30.7	35.9	18.9		3.7		3.9
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		30.7	35.9	18.9		3.7		3.9
LOS		C	D	B		A		A
Approach Delay (s/veh)		30.7		27.4		3.7		3.9
Approach LOS		C		C		A		A
Queue Length 50th (m)		7.5	8.5	3.6		9.4		8.2
Queue Length 95th (m)		19.1	18.1	12.9		18.3		16.6
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		324	330	396		2183		2101
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.27	0.19	0.16		0.24		0.21

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.50
Intersection Signal Delay (s/veh): 8.3 — Intersection LOS: A
Intersection Capacity Utilization 52.9% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth



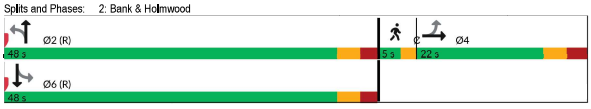
2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	7	54	439	22	321	
Future Volume (vph)	7	54	439	22	321	
Lane Group Flow (vph)	86	0	575	0	421	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	10.2		57.3		57.3	
Actuated g/C Ratio	0.14		0.76		0.76	
v/c Ratio	0.48		0.29		0.21	
Control Delay (s/veh)	38.1		4.4		2.9	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.1		4.4		2.9	
LOS	D		A		A	
Approach Delay (s/veh)	38.1		4.4		2.9	
Approach LOS	D		A		A	
Queue Length 50th (m)	11.4		12.0		8.1	
Queue Length 95th (m)	22.9		23.2		11.9	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	287		1953		2036	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.30		0.29		0.21	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay (s/veh): 6.5 — Intersection LOS: A
Intersection Capacity Utilization 57.3% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



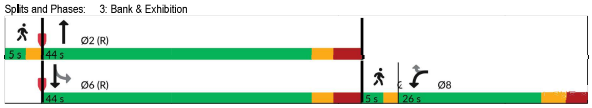
3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	168	194	191	111	261		
Future Volume (vph)	168	194	191	111	261		
Lane Group Flow (vph)	187	216	301	123	290		
Turn Type	Prot	Perm	NA	Perm	NA		
Protected Phases	8		2		6	1	7
Permitted Phases		8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (%)	32.5%	32.5%	55.0%	55.0%	55.0%	6%	6%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	15.1	15.1	51.7	51.7	51.7		
Actuated g/C Ratio	0.19	0.19	0.65	0.65	0.65		
v/c Ratio	0.64	0.57	0.17	0.26	0.14		
Control Delay (s/veh)	39.9	10.4	4.7	8.9	6.4		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	39.9	10.4	4.7	8.9	6.4		
LOS	D	B	A	A	A		
Approach Delay (s/veh)	24.1		4.7		7.1		
Approach LOS	C		A		A		
Queue Length 50th (m)	26.6	0.0	5.6	6.9	7.8		
Queue Length 95th (m)	42.7	16.4	12.6	18.7	15.4		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	383	431	1737	471	2032		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.49	0.50	0.17	0.26	0.14		

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay (s/veh): 12.6 — Intersection LOS: B
Intersection Capacity Utilization 57.6% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition



6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	4	1	156	192	
Future Volume (vph)	4	1	156	192	
Lane Group Flow (vph)	7	0	174	220	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.0		60.3	60.3	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.03		0.09	0.11	
Control Delay (s/veh)	27.2		4.6	5.3	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	27.2		4.6	5.3	
LOS	C		A	A	
Approach Delay (s/veh)	27.2		4.6	5.3	
Approach LOS	C		A	A	
Queue Length 50th (m)	0.6		4.2	6.0	
Queue Length 95th (m)	4.4		6.6	9.7	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	248		2004	2063	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.03		0.09	0.11	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.11
Intersection Signal Delay (s/veh): 5.3 — Intersection LOS: A
Intersection Capacity Utilization 45.6% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	29	7	5	12	12	239	34	418		
Future Volume (vph)	29	7	5	12	12	239	34	418		
Lane Group Flow (vph)	0	62	0	56	0	285	0	550		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	60.0	5.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	43.0	5.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%	47.8%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		11.0		10.8		71.0		71.0		
Actuated g/C Ratio		0.12		0.12		0.79		0.79		
v/c Ratio		0.52		0.33		0.12		0.26		
Control Delay (s/veh)		50.9		22.0		3.5		2.6		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		50.9		22.0		3.5		2.6		
LOS		D		C		A		A		
Approach Delay (s/veh)		50.9		22.0		3.5		2.6		
Approach LOS		D		C		A		A		
Queue Length 50th (m)		10.2		3.0		5.7		6.8		
Queue Length 95th (m)		21.4		13.0		11.6		12.4		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		212		273		2285		2114		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.29		0.21		0.12		0.26		

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay (s/veh): 7.1		Intersection LOS: A	
Intersection Capacity Utilization 60.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	64	51	274	155	
Future Volume (vph)	64	51	274	155	
Lane Group Flow (vph)	103	0	361	210	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	11.5		56.0	56.0	
Actuated g/C Ratio	0.14		0.70	0.70	
v/c Ratio	0.46		0.33	0.18	
Control Delay (s/veh)	37.8		6.0	4.9	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	37.8		6.0	4.9	
LOS	D		A	A	
Approach Delay (s/veh)	37.8		6.0	4.9	
Approach LOS	D		A	A	
Queue Length 50th (m)	14.8		17.0	8.7	
Queue Length 95th (m)	27.7		34.6	18.8	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	298		1089	1151	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.35		0.33	0.18	

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay (s/veh): 10.5		Intersection LOS: B	
Intersection Capacity Utilization 53.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: Queen Elizabeth Drive & Fifth

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	111	47	280	395	67
Future Vol, veh/h	2	111	47	280	395	67
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	2	123	52	311	439	74

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	914	654	691	0	-	0
Stage 1	654	-	-	-	-	-
Stage 2	260	-	-	-	-	-
Critical Hdwy	6.675	6.275	4.175	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	2.2475	-	-	-
Pot Cap-1 Maneuver	283	459	885	-	-	-
Stage 1	509	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	171	373	718	-	-	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	380	-	-	-	-	-
Stage 2	611	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	19.37	2.03	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	517	-	373	-	-
HCM Lane V/C Ratio	0.073	-	0.331	-	-
HCM Ctrl Dly (s/v)	10.4	0.6	19.4	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.4	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	11	0	360	325	0
Future Vol, veh/h	2	11	0	360	325	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	2	12	0	400	361	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	561	361	-	0	-	0
Stage 1	361	-	-	-	-	-
Stage 2	200	-	-	-	-	-
Critical Hdwy	6.675	6.275	-	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	-	-	-	-
Pot Cap-1 Maneuver	467	675	0	-	-	0
Stage 1	696	-	0	-	-	0
Stage 2	807	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	467	675	-	-	-	-
Mov Cap-2 Maneuver	467	-	-	-	-	-
Stage 1	696	-	-	-	-	-
Stage 2	807	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.43	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	675	-
HCM Lane V/C Ratio	-	0.018	-
HCM Ctrl Dly (s/v)	-	10.4	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Int Delay, s/veh	11.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	279	175	17	45	125	61
Future Vol, veh/h	279	175	17	45	125	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	310	194	19	50	139	68

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	261	173	207	0	-	0
Stage 1	173	-	-	-	-	-
Stage 2	88	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	733	876	1377	-	-	-
Stage 1	862	-	-	-	-	-
Stage 2	941	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	722	876	1377	-	-	-
Mov Cap-2 Maneuver	722	-	-	-	-	-
Stage 1	850	-	-	-	-	-
Stage 2	941	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	17.89	2.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	494	-	775	-	-
HCM Lane V/C Ratio	0.014	-	0.651	-	-
HCM Ctrl Dly (s/v)	7.7	0	17.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	4.9	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	144	396	29	0	373
Future Vol, veh/h	5	144	396	29	0	373
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	15	6	0	0	5
Mvmt Flow	6	160	440	32	0	414

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	763	336	0	0	-	-
Stage 1	556	-	-	-	-	-
Stage 2	207	-	-	-	-	-
Critical Hdwy	6.8	7.2	-	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.45	-	-	-	-
Pot Cap-1 Maneuver	345	623	-	-	0	-
Stage 1	544	-	-	-	0	-
Stage 2	813	-	-	-	0	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	308	557	-	-	-	-
Mov Cap-2 Maneuver	308	-	-	-	-	-
Stage 1	486	-	-	-	-	-
Stage 2	813	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	14.04	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	557	-
HCM Lane V/C Ratio	-	-	0.287	-
HCM Ctrl Dly (s/v)	-	-	14	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	1.2	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	191	0	0	368	0	0
Future Vol, veh/h	191	0	0	368	0	0
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	212	0	0	409	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	312	0	821	412
Stage 1	-	-	-	-	312	-
Stage 2	-	-	-	-	509	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1248	-	344	640
Stage 1	-	-	-	-	742	-
Stage 2	-	-	-	-	604	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1116	-	275	511
Mov Cap-2 Maneuver	-	-	-	-	275	-
Stage 1	-	-	-	-	664	-
Stage 2	-	-	-	-	540	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1116	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	12.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	70	73	5	385	93
Future Vol, veh/h	2	70	73	5	385	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	78	81	6	428	103

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	87	0	-	0	166	84
Stage 1	-	-	-	-	84	-
Stage 2	-	-	-	-	82	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1509	-	-	-	824	975
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	941	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1509	-	-	-	823	975
Mov Cap-2 Maneuver	-	-	-	-	823	-
Stage 1	-	-	-	-	938	-
Stage 2	-	-	-	-	941	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.21	0	16.05
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	50	-	-	-	849
HCM Lane V/C Ratio	0.001	-	-	-	0.626
HCM Ctrl Dly (s/v)	7.4	0	-	-	16.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	4.5

2028 – MAJOR EVENT INGRESS

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	68	58	0	0	0	198	57	60	93	0	0	131
Future Vol, veh/h	68	58	0	0	0	198	57	60	93	0	0	131
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	76	64	0	0	0	220	63	67	103	0	0	146
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

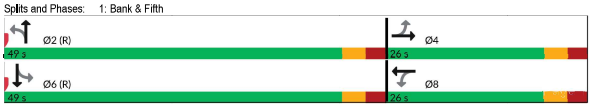
Approach	EB				WB	NB						SB
Opposing Approach	WB				EB	SB						NB
Opposing Lanes	1				1	1						1
Conflicting Approach Left	SB				NB	EB						WB
Conflicting Lanes Left	1				1	1						1
Conflicting Approach Right	NB				SB	WB						EB
Conflicting Lanes Right	1				1	1						1
HCM Control Delay, s/veh	9.6				9.1	9.9						8.5
HCM LOS	A				A	A						A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	54%	0%	0%
Vol Thru, %	29%	46%	0%	0%
Vol Right, %	44%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	210	126	198	131
LT Vol	57	68	0	0
Through Vol	60	58	0	0
RT Vol	93	0	198	131
Lane Flow Rate	233	140	220	146
Geometry Grp	1	1	1	1
Degree of Util (X)	0.307	0.201	0.269	0.181
Departure Headway (Hd)	4.73	5.175	4.395	4.467
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	754	687	810	795
Service Time	2.802	3.257	2.467	2.546
HCM Lane V/C Ratio	0.309	0.204	0.272	0.184
HCM Control Delay, s/veh	9.9	9.6	9.1	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.3	0.7	1.1	0.7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	62	55	94	63	24	405	58	570
Future Volume (vph)	62	55	94	63	24	405	58	570
Lane Group Flow (vph)	0	171	104	157	0	547	0	764
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		14.5	14.5	14.5		49.5		49.5
Actuated g/C Ratio		0.19	0.19	0.19		0.66		0.66
v/c Ratio		0.72	0.57	0.48		0.32		0.46
Control Delay (s/veh)		40.7	38.2	17.6		6.9		7.9
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		40.7	38.2	17.6		6.9		7.9
LOS		D	D	B		A		A
Approach Delay (s/veh)		40.7		25.8		6.9		7.9
Approach LOS		D		C		A		A
Queue Length 50th (m)		19.9	13.4	9.1		12.4		23.2
Queue Length 95th (m)		36.1	25.6	22.7		30.7		43.5
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		330	260	430		1706		1669
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.52	0.40	0.37		0.32		0.46

Intersection Summary			
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay (s/veh): 13.5		Intersection LOS: B	
Intersection Capacity Utilization 88.1%		ICU Level of Service E	
Analysis Period (min) 15			

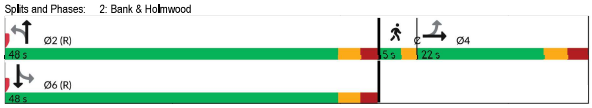
Splits and Phases: 1: Bank & Fifth



Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	38	69	458	53	546	
Future Volume (vph)	38	69	458	53	546	
Lane Group Flow (vph)	154	0	717	0	722	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	13.6		50.6		50.6	
Actuated g/C Ratio	0.18		0.67		0.67	
v/c Ratio	0.63		0.49		0.43	
Control Delay (s/veh)	38.8		7.4		4.5	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.8		7.4		4.5	
LOS	D		A		A	
Approach Delay (s/veh)	38.8		7.4		4.5	
Approach LOS	D		A		A	
Queue Length 50th (m)	20.3		19.6		14.8	
Queue Length 95th (m)	34.8		39.3		19.6	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	307		1472		1675	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.50		0.49		0.43	

Intersection Summary			
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay (s/veh): 9.1		Intersection LOS: A	
Intersection Capacity Utilization 71.6%		ICU Level of Service C	
Analysis Period (min) 15			

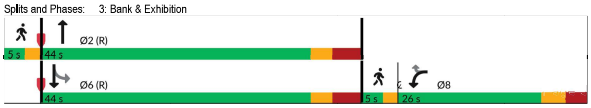
Splits and Phases: 2: Bank & Holmwood



Lane Group	NBT	SBT	Ø1	Ø7	Ø8
Lane Configurations					
Traffic Volume (vph)	661	601			
Future Volume (vph)	661	601			
Lane Group Flow (vph)	734	668			
Turn Type	NA	NA			
Protected Phases	2	6	1	7	8
Permitted Phases					
Detector Phase	2	6			
Switch Phase					
Minimum Initial (s)	10.0	10.0	1.0	1.0	10.0
Minimum Split (s)	44.0	44.0	5.0	5.0	26.0
Total Split (s)	44.0	44.0	5.0	5.0	26.0
Total Split (%)	55.0%	55.0%	6%	6%	33%
Yellow Time (s)	3.0	3.0	2.0	2.0	3.3
All-Red Time (s)	3.9	3.9	0.0	0.0	3.0
Lost Time Adjust (s)	0.0	0.0			
Total Lost Time (s)	6.9	6.9			
Lead/Lag				Lead	Lag
Lead-Lag Optimize?				Yes	
Recall Mode	C-Max	C-Max	None	None	None
Act Effct Green (s)	80.0	80.0			
Actuated g/C Ratio	1.00	1.00			
v/c Ratio	0.24	0.21			
Control Delay (s/veh)	0.2	0.2			
Queue Delay	0.0	0.0			
Total Delay (s/veh)	0.2	0.2			
LOS	A	A			
Approach Delay (s/veh)	0.2	0.2			
Approach LOS	A	A			
Queue Length 50th (m)	0.0	0.0			
Queue Length 95th (m)	0.0	0.0			
Internal Link Dist (m)	33.7	44.8			
Turn Bay Length (m)					
Base Capacity (vph)	3054	3142			
Starvation Cap Reductn	0	0			
Spillback Cap Reductn	0	0			
Storage Cap Reductn	0	0			
Reduced v/c Ratio	0.24	0.21			

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.24			
Intersection Signal Delay (s/veh): 0.2		Intersection LOS: A	
Intersection Capacity Utilization 46.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Bank & Exhibition



Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	91	13	730	766	
Future Volume (vph)	91	13	730	766	
Lane Group Flow (vph)	129	0	825	907	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.6		59.7	59.7	
Actuated g/C Ratio	0.16		0.66	0.66	
v/c Ratio	0.52		0.42	0.45	
Control Delay (s/veh)	38.6		5.6	8.2	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	38.6		5.6	8.2	
LOS	D		A	A	
Approach Delay (s/veh)	38.6		5.6	8.2	
Approach LOS	D		A	A	
Queue Length 50th (m)	18.4		20.9	33.5	
Queue Length 95th (m)	34.7		25.3	49.4	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	278		1943	2004	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.46		0.42	0.45	

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.52
Intersection Signal Delay (s/veh): 9.1 Intersection LOS: A
Intersection Capacity Utilization 51.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	53	78	13	83	27	519	139	622		
Future Volume (vph)	53	78	13	83	27	519	139	622		
Lane Group Flow (vph)	0	187	0	280	0	638	0	937		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	60.0	5.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	43.0	5.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%	47.8%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		23.5		23.5		54.9		54.9		
Actuated g/C Ratio		0.26		0.26		0.61		0.61		
v/c Ratio		0.68		0.74		0.39		0.75		
Control Delay (s/veh)		43.4		34.4		9.9		12.3		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		43.4		34.4		9.9		12.3		
LOS		D		C		A		B		
Approach Delay (s/veh)		43.4		34.4		9.9		12.3		
Approach LOS		D		C		A		B		
Queue Length 50th (m)		28.6		30.7		27.5		60.8		
Queue Length 95th (m)		#55.5		#66.7		38.2		89.0		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		276		376		1650		1243		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.68		0.74		0.39		0.75		

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay (s/veh): 17.4 Intersection LOS: B
Intersection Capacity Utilization 90.0% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	93	113	281	667	
Future Volume (vph)	93	113	281	667	
Lane Group Flow (vph)	261	0	438	882	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	20.4		47.1	47.1	
Actuated g/C Ratio	0.26		0.59	0.59	
v/c Ratio	0.67		1.33	0.91	
Control Delay (s/veh)	35.4		189.3	31.8	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	35.4		189.3	31.8	
LOS	D		F	C	
Approach Delay (s/veh)	35.4		189.3	31.8	
Approach LOS	D		F	C	
Queue Length 50th (m)	35.4		~88.3	110.0	
Queue Length 95th (m)	54.7		#103.7	#210.7	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	390		330	970	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.67		1.33	0.91	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.33
Intersection Signal Delay (s/veh): 76.0 Intersection LOS: E
Intersection Capacity Utilization 98.1% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Queen Elizabeth Drive & Fifth

Intersection	
Int Delay, s/veh	17.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	274	107	718	532	106
Future Vol, veh/h	5	274	107	718	532	106
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	6	304	119	798	591	118

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1465	828	887	0	-	0
Stage 1	828	-	-	-	-	-
Stage 2	637	-	-	-	-	-
Critical Hdwy	6.675	6.275	4.175	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	2.2475	-	-	-
Pot Cap-1 Maneuver	127	364	746	-	-	-
Stage 1	421	-	-	-	-	-
Stage 2	483	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	62	~ 296	605	-	-	-
Mov Cap-2 Maneuver	62	-	-	-	-	-
Stage 1	256	-	-	-	-	-
Stage 2	392	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	99.38	3.7	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	467	-	296	-	-
HCM Lane V/C Ratio	0.196	-	1.03	-	-
HCM Ctrl Dly (s/v)	12.4	2.4	99.4	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.7	-	11.3	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	74	0	802	779	0
Future Vol, veh/h	1	74	0	802	779	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	1	82	0	891	866	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1311	866	-	0	-	0
Stage 1	866	-	-	-	-	-
Stage 2	446	-	-	-	-	-
Critical Hdwy	6.675	6.275	-	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	-	-	-	-
Pot Cap-1 Maneuver	159	346	0	-	-	0
Stage 1	404	-	0	-	-	0
Stage 2	606	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	159	346	-	-	-	-
Mov Cap-2 Maneuver	159	-	-	-	-	-
Stage 1	404	-	-	-	-	-
Stage 2	606	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	18.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	346	-
HCM Lane V/C Ratio	-	0.237	-
HCM Ctrl Dly (s/v)	-	18.6	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	0.9	-

Intersection	
Int Delay, s/veh	52.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	157	118	131	239	454	335
Future Vol, veh/h	157	118	131	239	454	335
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	174	131	146	266	504	372

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1247	691	877	0	-	0
Stage 1	691	-	-	-	-	-
Stage 2	557	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	193	448	779	-	-	-
Stage 1	501	-	-	-	-	-
Stage 2	578	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 151	448	779	-	-	-
Mov Cap-2 Maneuver	~ 151	-	-	-	-	-
Stage 1	391	-	-	-	-	-
Stage 2	578	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	268.81	3.78	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	637	-	211	-	-
HCM Lane V/C Ratio	0.187	-	1.448	-	-
HCM Ctrl Dly (s/v)	10.7	0	268.8	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.7	-	18.1	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	637	0	0	602
Future Vol, veh/h	0	0	637	0	0	602
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	15	6	0	0	5
Mvmt Flow	0	0	708	0	0	669

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	454	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7,2	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3,45	-	-	-	-
Pot Cap-1 Maneuver	0	519	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	464	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-

2028 – MAJOR EVENT EGRESS

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	53	0	0	0	112	114	100	141	0	0	55
Future Vol, veh/h	25	53	0	0	0	112	114	100	141	0	0	55
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	59	0	0	0	124	127	111	157	0	0	61
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

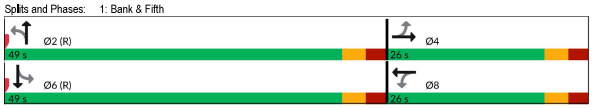
Approach	EB				WB	NB						SB
Opposing Approach	WB				EB	SB						NB
Opposing Lanes	1				1	1						1
Conflicting Approach Left	SB				NB	EB						WB
Conflicting Lanes Left	1				1	1						1
Conflicting Approach Right	NB				SB	WB						EB
Conflicting Lanes Right	1				1	1						1
HCM Control Delay, s/veh	9				8.3	11.2						7.7
HCM LOS	A				A	B						A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	32%	32%	0%	0%
Vol Thru, %	28%	68%	0%	0%
Vol Right, %	40%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	355	78	112	55
LT Vol	114	25	0	0
Through Vol	100	53	0	0
RT Vol	141	0	112	55
Lane Flow Rate	394	87	124	61
Geometry Grp	1	1	1	1
Degree of Util (X)	0.474	0.124	0.154	0.073
Departure Headway (Hd)	4.328	5.165	4.464	4.273
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	832	692	800	834
Service Time	2.362	3.218	2.513	2.321
HCM Lane V/C Ratio	0.474	0.126	0.155	0.073
HCM Control Delay, s/veh	11.2	9	8.3	7.7
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	2.6	0.4	0.5	0.2

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	76	33	41	70	22	315	20	349
Future Volume (vph)	76	33	41	70	22	315	20	349
Lane Group Flow (vph)	0	151	46	205	0	402	0	453
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		14.7	14.7	14.7		49.3		49.3
Actuated g/C Ratio		0.20	0.20	0.20		0.66		0.66
v/c Ratio		0.80	0.23	0.59		0.23		0.25
Control Delay (s/veh)		54.6	25.9	19.7		5.2		6.2
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		54.6	25.9	19.7		5.2		6.2
LOS		D	C	B		A		A
Approach Delay (s/veh)		54.6		20.8		5.2		6.2
Approach LOS		D		C		A		A
Queue Length 50th (m)		18.2	5.5	11.9		8.6		11.4
Queue Length 95th (m)		#36.9	12.8	28.6		16.5		21.8
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		255	280	440		1780		1790
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.59	0.16	0.47		0.23		0.25

Intersection Summary			
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay (s/veh): 14.6		Intersection LOS: B	
Intersection Capacity Utilization 73.1%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

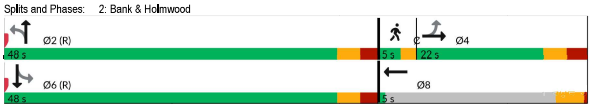
Splits and Phases: 1: Bank & Fifth



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations								
Traffic Volume (vph)	46	22	3	50	266	30	279	
Future Volume (vph)	46	22	3	50	266	30	279	
Lane Group Flow (vph)	0	147	3	0	415	0	413	
Turn Type	Perm	NA	NA	Perm	NA	Perm	NA	
Protected Phases		4	8		2		6	3
Permitted Phases	4			2		6		
Detector Phase	4	4	8	2	2	6	6	
Switch Phase								
Minimum Initial (s)	4.4	4.4	4.0	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	22.0	20.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	22.0	5.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	29.3%	6.7%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.5	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.6	0.5	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)		0.0			0.0		0.0	
Total Lost Time (s)		5.6			5.2		5.2	
Lead/Lag	Lag	Lag						Lead
Lead-Lag Optimize?								
Recall Mode	None	None	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)		16.7	0.0		47.5		47.5	
Actuated g/C Ratio		0.22	0.00		0.63		0.63	
v/c Ratio		0.55	no cap		0.28		0.26	
Control Delay (s/veh)		32.4			7.0		4.1	
Queue Delay		0.0			0.0		0.0	
Total Delay (s/veh)		32.4	Error		7.0		4.1	
LOS		C	F		A		A	
Approach Delay (s/veh)		32.4	Error		7.0		4.1	
Approach LOS		C	F		A		A	
Queue Length 50th (m)		16.9	0.0		12.7		6.8	
Queue Length 95th (m)		32.9	0.0		20.4		9.6	
Internal Link Dist (m)		39.8	116.8		31.5		195.6	
Turn Bay Length (m)								
Base Capacity (vph)		309	1		1481		1608	
Starvation Cap Reductn		0	0		0		0	
Spillback Cap Reductn		0	0		0		0	
Storage Cap Reductn		0	0		0		0	
Reduced v/c Ratio		0.48	3.00		0.28		0.26	

Intersection Summary			
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: Err			
Intersection Signal Delay (s/veh): Err		Intersection LOS: F	
Intersection Capacity Utilization Err%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 2: Bank & Holmwood



3: Bank & Exhibition

Lane Group	NBT	SBT	Ø1	Ø7	Ø8
Lane Configurations					
Traffic Volume (vph)	359	342			
Future Volume (vph)	359	342			
Lane Group Flow (vph)	399	380			
Turn Type	NA	NA			
Protected Phases	2	6	1	7	8
Permitted Phases					
Detector Phase	2	6			
Switch Phase					
Minimum Initial (s)	10.0	10.0	1.0	1.0	10.0
Minimum Split (s)	44.0	44.0	5.0	5.0	26.0
Total Split (s)	44.0	44.0	5.0	5.0	26.0
Total Split (%)	55.0%	55.0%	6%	6%	33%
Yellow Time (s)	3.0	3.0	2.0	2.0	3.3
All-Red Time (s)	3.9	3.9	0.0	0.0	3.0
Lost Time Adjust (s)	0.0	0.0			
Total Lost Time (s)	6.9	6.9			
Lead/Lag				Lead	Lag
Lead-Lag Optimize?				Yes	
Recall Mode	C-Max	C-Max	None	None	None
Act Effct Green (s)	80.0	80.0			
Actuated g/C Ratio	1.00	1.00			
v/c Ratio	0.13	0.12			
Control Delay (s/veh)	0.1	0.1			
Queue Delay	0.0	0.0			
Total Delay (s/veh)	0.1	0.1			
LOS	A	A			
Approach Delay (s/veh)	0.1	0.1			
Approach LOS	A	A			
Queue Length 50th (m)	0.0	0.0			
Queue Length 95th (m)	0.0	0.0			
Internal Link Dist (m)	33.7	44.8			
Turn Bay Length (m)					
Base Capacity (vph)	3054	3142			
Starvation Cap Reductn	0	0			
Spillback Cap Reductn	0	0			
Storage Cap Reductn	0	0			
Reduced v/c Ratio	0.13	0.12			

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.13
Intersection Signal Delay (s/veh): 0.1 — Intersection LOS: A
Intersection Capacity Utilization 43.5% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition

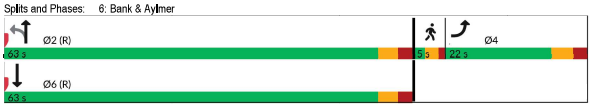
6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	19	16	331	297	
Future Volume (vph)	19	16	331	297	
Lane Group Flow (vph)	38	0	386	356	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.0		60.3	60.3	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.17		0.20	0.18	
Control Delay (s/veh)	23.9		4.9	5.5	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	23.9		4.9	5.5	
LOS	C		A	A	
Approach Delay (s/veh)	23.9		4.9	5.5	
Approach LOS	C		A	A	
Queue Length 50th (m)	3.2		9.7	10.0	
Queue Length 95th (m)	11.7		13.7	15.0	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	258		1934	2011	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.15		0.20	0.18	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.20
Intersection Signal Delay (s/veh): 6.1 — Intersection LOS: A
Intersection Capacity Utilization 45.6% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer



7: Bank & Sunnyside

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	31	28	16	35	20	269	14	304		
Future Volume (vph)	31	28	16	35	20	269	14	304		
Lane Group Flow (vph)	0	91	0	98	0	329	0	387		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	60.0	5.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	43.0	5.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%	47.8%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		12.4		12.2		69.7		69.7		
Actuated g/C Ratio		0.14		0.14		0.77		0.77		
v/c Ratio		0.59		0.49		0.15		0.18		
Control Delay (s/veh)		50.8		30.9		4.1		1.3		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		50.8		30.9		4.1		1.3		
LOS		D		C		A		A		
Approach Delay (s/veh)		50.8		30.9		4.1		1.3		
Approach LOS		D		C		A		A		
Queue Length 50th (m)		15.0		9.7		7.3		1.8		
Queue Length 95th (m)		28.0		22.9		14.6		3.5		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		242		294		2185		2153		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.38		0.33		0.15		0.18		

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay (s/veh): 10.5 — Intersection LOS: B
Intersection Capacity Utilization 45.7% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 7: Bank & Sunnyside

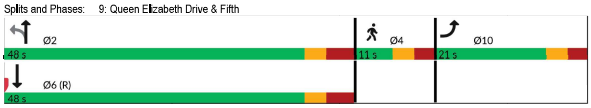
9: Queen Elizabeth Drive & Fifth

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	141	46	301	288	
Future Volume (vph)	141	46	301	288	
Lane Group Flow (vph)	226	0	385	397	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	17.0		50.5	50.5	
Actuated g/C Ratio	0.21		0.63	0.63	
v/c Ratio	0.68		0.40	0.38	
Control Delay (s/veh)	39.2		9.7	9.4	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	39.2		9.7	9.4	
LOS	D		A	A	
Approach Delay (s/veh)	39.2		9.7	9.4	
Approach LOS	D		A	A	
Queue Length 50th (m)	31.7		25.9	26.4	
Queue Length 95th (m)	49.8		51.0	51.0	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	350		966	1036	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.65		0.40	0.38	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay (s/veh): 16.2 — Intersection LOS: B
Intersection Capacity Utilization 68.2% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 9: Queen Elizabeth Drive & Fifth



Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	5	0	352	288	68
Future Vol, veh/h	0	5	0	352	288	68
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	0	6	0	391	320	76

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	536	574	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.275	4.175	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3475	2.2475	-	-	-
Pot Cap-1 Maneuver	0	537	980	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	436	795	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	13.37	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	795	-	436	-	-
HCM Lane V/C Ratio	-	-	0.013	-	-
HCM Ctrl Dly (s/v)	0	-	13.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	33	0	335	299	0
Future Vol, veh/h	0	33	0	335	299	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	0	37	0	372	332	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	332	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.275	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3475	-	-	-	-
Pot Cap-1 Maneuver	0	701	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	701	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.42	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	701	-
HCM Lane V/C Ratio	-	0.052	-
HCM Ctrl Dly (s/v)	-	10.4	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.2	-

Intersection	
Int Delay, s/veh	20.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	242	211	50	112	222	128
Future Vol, veh/h	242	211	50	112	222	128
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	269	234	56	124	247	142

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	553	318	389	0	-	0
Stage 1	318	-	-	-	-	-
Stage 2	236	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	497	727	1181	-	-	-
Stage 1	742	-	-	-	-	-
Stage 2	808	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	472	727	1181	-	-	-
Mov Cap-2 Maneuver	472	-	-	-	-	-
Stage 1	705	-	-	-	-	-
Stage 2	808	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	43.17	2.53	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	556	-	564	-	-
HCM Lane V/C Ratio	0.047	-	0.892	-	-
HCM Ctrl Dly (s/v)	8.2	0	43.2	-	-
HCM Lane LOS	A	A	E	-	-
HCM 95th %tile Q(veh)	0.1	-	10.4	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	429	0	0	344
Future Vol, veh/h	0	0	429	0	0	344
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	15	6	0	0	5
Mvmt Flow	0	0	477	0	0	382

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	338	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.2	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.45	-	-	-	-
Pot Cap-1 Maneuver	0	621	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	555	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-

SYNCHRO SUMMARY SHEETS – 2033

2033 BACKGROUND – WEEKDAY AM

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	110	69	5	5	5
Future Vol, veh/h	5	110	69	5	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	122	77	6	6	6
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	7.7	7.4	7.2
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	0%	50%
Vol Thru, %	96%	93%	0%
Vol Right, %	0%	7%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	115	74	10
LT Vol	5	0	5
Through Vol	110	69	0
RT Vol	0	5	5
Lane Flow Rate	128	82	11
Geometry Grp	1	1	1
Degree of Util (X)	0.143	0.092	0.013
Departure Headway (Hd)	4.024	4.009	4.093
Convergence, Y/N	Yes	Yes	Yes
Cap	892	893	861
Service Time	2.045	2.039	2.183
HCM Lane V/C Ratio	0.143	0.092	0.013
HCM Control Delay, s/veh	7.7	7.4	7.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.3	0

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	5	5	126	5	5
Future Vol, veh/h	2	5	5	126	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	6	6	140	6	6
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	6.7	7.7	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	4%
Vol Thru, %	0%	29%	96%
Vol Right, %	50%	71%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	10	7	131
LT Vol	5	0	5
Through Vol	0	2	126
RT Vol	5	5	0
Lane Flow Rate	11	8	146
Geometry Grp	1	1	1
Degree of Util (X)	0.012	0.008	0.16
Departure Headway (Hd)	3.999	3.633	3.967
Convergence, Y/N	Yes	Yes	Yes
Cap	887	983	908
Service Time	2.061	1.662	1.972
HCM Lane V/C Ratio	0.012	0.008	0.161
HCM Control Delay, s/veh	7.1	6.7	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0	0.6

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	5	69	58	73	42
Future Vol, veh/h	2	5	69	58	73	42
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	6	77	64	81	47
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7	8.2	7.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	63%	0%	54%
Vol Thru, %	0%	29%	46%
Vol Right, %	37%	71%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	115	7	127
LT Vol	73	0	69
Through Vol	0	2	58
RT Vol	42	5	0
Lane Flow Rate	128	8	141
Geometry Grp	1	1	1
Degree of Util (X)	0.145	0.009	0.168
Departure Headway (Hd)	4.099	3.94	4.274
Convergence, Y/N	Yes	Yes	Yes
Cap	863	914	833
Service Time	2.186	1.94	2.337
HCM Lane V/C Ratio	0.148	0.009	0.169
HCM Control Delay, s/veh	7.9	7	8.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0	0.6

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	69	42	0	0	0	74	19	33	25	0	0	111
Future Vol, veh/h	69	42	0	0	0	74	19	33	25	0	0	111
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	77	47	0	0	0	82	21	37	28	0	0	123
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.5	7.3	7.9	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	62%	0%	0%
Vol Thru, %	43%	38%	0%	0%
Vol Right, %	32%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	77	111	74	111
LT Vol	19	69	0	0
Through Vol	33	42	0	0
RT Vol	25	0	74	111
Lane Flow Rate	86	123	82	123
Geometry Grp	1	1	1	1
Degree of Util (X)	0.104	0.158	0.089	0.133
Departure Headway (Hd)	4.374	4.599	3.918	3.89
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	821	784	916	924
Service Time	2.389	2.599	1.936	1.905
HCM Lane V/C Ratio	0.105	0.157	0.09	0.133
HCM Control Delay, s/veh	7.9	8.5	7.3	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.6	0.3	0.5

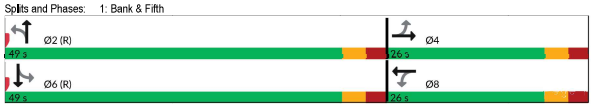
1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	39	60	50	52	10	568	20	440
Future Volume (vph)	39	60	50	52	10	568	20	440
Lane Group Flow (vph)	0	143	56	92	0	676	0	551
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max	Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		20.5	20.5	20.5		43.5		43.5
Actuated g/C Ratio		0.27	0.27	0.27		0.58		0.58
v/c Ratio		0.38	0.20	0.22		0.41		0.35
Control Delay (s/veh)		22.5	23.2	15.9		6.5		8.7
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		22.5	23.2	15.9		6.5		8.7
LOS		C	C	B		A		A
Approach Delay (s/veh)		22.5		18.7		6.5		8.7
Approach LOS		C		B		A		A
Queue Length 50th (m)		13.9	6.1	6.2		12.7		18.7
Queue Length 95th (m)		28.9	14.8	16.8		16.4		27.7
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		376	285	420		1652		1590
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.38	0.20	0.22		0.41		0.35

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 33 (44%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.41
Intersection Signal Delay (s/veh): 10.0 — Intersection LOS: B
Intersection Capacity Utilization 55.2% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth



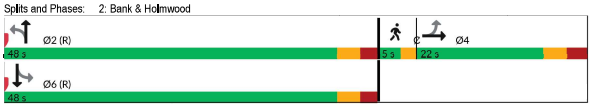
2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	22	17	554	12	394	
Future Volume (vph)	22	17	554	12	394	
Lane Group Flow (vph)	90	0	667	0	477	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	10.2		57.3		57.3	
Actuated g/C Ratio	0.14		0.76		0.76	
v/c Ratio	0.48		0.31		0.22	
Control Delay (s/veh)	37.7		4.4		3.2	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	37.7		4.4		3.2	
LOS	D		A		A	
Approach Delay (s/veh)	37.7		4.4		3.2	
Approach LOS	D		A		A	
Queue Length 50th (m)	12.0		14.3		7.6	
Queue Length 95th (m)	23.5		26.7		14.5	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	298		2129		2141	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.30		0.31		0.22	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 28 (37%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay (s/veh): 6.4 — Intersection LOS: A
Intersection Capacity Utilization 53.5% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø7
Lane Configurations						
Traffic Volume (vph)	54	34	527	68	358	
Future Volume (vph)	54	34	527	68	358	
Lane Group Flow (vph)	60	38	704	76	398	
Turn Type	Prot	Perm	NA	Perm	NA	
Protected Phases	8		2		6	7
Permitted Phases		8		6		
Detector Phase	8	8	2	6	6	
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	3.0
Minimum Split (s)	26.0	26.0	27.0	27.0	27.0	5.0
Total Split (s)	26.0	26.0	27.0	27.0	27.0	5.0
Total Split (%)	44.8%	44.8%	46.6%	46.6%	46.6%	9%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9	
Lead/Lag	Lag	Lag				Lead
Lead-Lag Optimize?						Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None
Act Effct Green (s)	10.1	10.1	44.0	44.0	44.0	
Actuated g/C Ratio	0.17	0.17	0.76	0.76	0.76	
v/c Ratio	0.22	0.16	0.32	0.18	0.17	
Control Delay (s/veh)	23.0	9.8	4.8	6.4	4.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	23.0	9.8	4.8	6.4	4.3	
LOS	C	A	A	A	A	
Approach Delay (s/veh)	17.9		4.8		4.6	
Approach LOS	B		A		A	
Queue Length 50th (m)	5.6	0.0	16.4	3.2	8.7	
Queue Length 95th (m)	14.0	6.3	25.8	9.0	14.2	
Internal Link Dist (m)	30.6		33.7		44.8	
Turn Bay Length (m)				40.0		
Base Capacity (vph)	523	422	2178	434	2383	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.11	0.09	0.32	0.18	0.17	

Intersection Summary

Cycle Length: 58
Actuated Cycle Length: 58
Offset: 25 (43%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.32
Intersection Signal Delay (s/veh): 5.8 — Intersection LOS: A
Intersection Capacity Utilization 61.1% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition

6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	65	16	729	543	
Future Volume (vph)	65	16	729	543	
Lane Group Flow (vph)	82	0	828	664	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	20.0	55.0	55.0	55.0	5.0
Total Split (s)	20.0	55.0	55.0	55.0	5.0
Total Split (%)	25.0%	68.8%	68.8%	68.8%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	None	C-Max	C-Max	C-Max	None
Act Effct Green (s)	10.8		62.6	62.6	
Actuated g/C Ratio	0.14		0.78	0.78	
v/c Ratio	0.39		0.36	0.29	
Control Delay (s/veh)	34.1		5.2	3.7	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	34.1		5.2	3.7	
LOS	C		A	A	
Approach Delay (s/veh)	34.1		5.2	3.7	
Approach LOS	C		A	A	
Queue Length 50th (m)	10.5		27.4	13.3	
Queue Length 95th (m)	22.4		m42.7	22.8	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	280		2294	2329	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.29		0.36	0.29	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 4 (5%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.39
Intersection Signal Delay (s/veh): 6.1 — Intersection LOS: A
Intersection Capacity Utilization 53.9% — ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	59	61	19	61	23	999	193	403		
Future Volume (vph)	59	61	19	61	23	999	193	403		
Lane Group Flow (vph)	0	148	0	401	0	1152	0	711		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	26.0	26.0	26.0	26.0	38.0	38.0	11.0	49.0	5.0	5.0
Total Split (s)	26.0	26.0	26.0	26.0	38.0	38.0	11.0	38.0	5.0	5.0
Total Split (%)	32.5%	32.5%	32.5%	32.5%	47.5%	47.5%	13.8%	47.5%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		22.0		22.0		46.4		46.4		
Actuated g/C Ratio		0.28		0.28		0.58		0.58		
v/c Ratio		0.65		0.88		0.68		1.20dl		
Control Delay (s/veh)		38.3		33.7		15.1		31.8		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		38.3		33.7		15.1		31.8		
LOS		D		C		B		C		
Approach Delay (s/veh)		38.3		33.7		15.1		31.8		
Approach LOS		D		C		B		C		
Queue Length 50th (m)		18.5		26.2		65.2		53.8		
Queue Length 95th (m)		37.4		#76.1		89.0		#84.0		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		246		476		1702		902		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.60		0.84		0.68		0.79		

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 60 (75%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay (s/veh): 24.6 Intersection LOS: C
Intersection Capacity Utilization 96.8% ICU Level of Service F
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	49	24	229	296	
Future Volume (vph)	49	24	229	296	
Lane Group Flow (vph)	74	0	281	385	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	32.0	32.0	32.0	16.0
Total Split (s)	22.0	32.0	32.0	32.0	16.0
Total Split (%)	31.4%	45.7%	45.7%	45.7%	23%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	Max	None
Act Effct Green (s)	10.0		25.2	25.2	
Actuated g/C Ratio	0.21		0.53	0.53	
v/c Ratio	0.23		0.34	0.44	
Control Delay (s/veh)	17.8		7.9	8.9	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	17.8		7.9	8.9	
LOS	B		A	A	
Approach Delay (s/veh)	17.8		7.9	8.9	
Approach LOS	B		A	A	
Queue Length 50th (m)	5.2		11.9	17.5	
Queue Length 95th (m)	13.4		23.2	32.7	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	536		838	873	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.14		0.34	0.44	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 47.7
Natural Cycle: 70
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.44
Intersection Signal Delay (s/veh): 9.4 Intersection LOS: A
Intersection Capacity Utilization 52.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Queen Elizabeth Drive & Fifth

Intersection

Int Delay, s/veh 5.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	192	146	646	378	26
Future Vol, veh/h	1	192	146	646	378	26
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	1	213	162	718	420	29

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1296	612	627	0	-	0
Stage 1	612	-	-	-	-	-
Stage 2	683	-	-	-	-	-
Critical Hdwy	6.675	6.275	4.175	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	2.2475	-	-	-
Pot Cap-1 Maneuver	163	485	936	-	-	-
Stage 1	533	-	-	-	-	-
Stage 2	457	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	79	394	759	-	-	-
Mov Cap-2 Maneuver	79	-	-	-	-	-
Stage 1	317	-	-	-	-	-
Stage 2	371	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	24.45	3.68	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	608	-	394	-	-
HCM Lane V/C Ratio	0.214	-	0.542	-	-
HCM Ctrl Dly (s/v)	11	2	24.4	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q(veh)	0.8	-	3.1	-	-

Intersection	
Int Delay, s/veh	0,3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	27	0	780	559	0
Future Vol, veh/h	0	27	0	780	559	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	0	30	0	867	621	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	621	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6,275	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3,3475	-	-	-	-
Pot Cap-1 Maneuver	0	480	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	480	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	13,01	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	480	-
HCM Lane V/C Ratio	-	0,063	-
HCM Ctrl Dly (s/v)	-	13	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0,2	-

Intersection	
Int Delay, s/veh	1,6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	24	67	255	284	72
Future Vol, veh/h	20	24	67	255	284	72
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	22	27	74	283	316	80

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	788	356	396	0	-	0
Stage 1	356	-	-	-	-	-
Stage 2	432	-	-	-	-	-
Critical Hdwy	6,4	6,2	4,1	-	-	-
Critical Hdwy Stg 1	5,4	-	-	-	-	-
Critical Hdwy Stg 2	5,4	-	-	-	-	-
Follow-up Hdwy	3,5	3,3	2,2	-	-	-
Pot Cap-1 Maneuver	363	693	1174	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	659	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	336	693	1174	-	-	-
Mov Cap-2 Maneuver	336	-	-	-	-	-
Stage 1	660	-	-	-	-	-
Stage 2	659	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	13,61	1,72	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	375	-	467	-	-
HCM Lane V/C Ratio	0,063	-	0,105	-	-
HCM Ctrl Dly (s/v)	8,3	0	13,6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0,2	-	0,3	-	-

Intersection	
Int Delay, s/veh	0,4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	35	561	7	0	427
Future Vol, veh/h	0	35	561	7	0	427
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	15	6	0	0	5
Mvmt Flow	0	39	623	8	0	474

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	416	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7,2	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3,45	-	-	-	-
Pot Cap-1 Maneuver	0	551	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	493	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12,93	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	493	-
HCM Lane V/C Ratio	-	-	0,079	-
HCM Ctrl Dly (s/v)	-	-	12,9	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0,3	-

Intersection	
Int Delay, s/veh	1,3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	110	63	5	69	19	5
Future Vol, veh/h	110	63	5	69	19	5
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	122	70	6	77	21	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	292	0	445	357
Stage 1	-	-	-	-	257	-
Stage 2	-	-	-	-	188	-
Critical Hdwy	-	-	4,12	-	6,42	6,22
Critical Hdwy Stg 1	-	-	-	-	5,42	-
Critical Hdwy Stg 2	-	-	-	-	5,42	-
Follow-up Hdwy	-	-	2,218	-	3,518	3,318
Pot Cap-1 Maneuver	-	-	1269	-	571	687
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	844	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1135	-	454	549
Mov Cap-2 Maneuver	-	-	-	-	454	-
Stage 1	-	-	-	-	703	-
Stage 2	-	-	-	-	751	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0,55	13,1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	471	-	-	122	-
HCM Lane V/C Ratio	0,057	-	-	0,005	-
HCM Ctrl Dly (s/v)	13,1	-	-	8,2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0,2	-	-	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	39	123	16	5	4
Future Vol, veh/h	5	39	123	16	5	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	43	137	18	6	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	154	0	-	0	200	146
Stage 1	-	-	-	-	146	-
Stage 2	-	-	-	-	54	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1426	-	-	-	789	902
Stage 1	-	-	-	-	882	-
Stage 2	-	-	-	-	968	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1426	-	-	-	785	902
Mov Cap-2 Maneuver	-	-	-	-	785	-
Stage 1	-	-	-	-	878	-
Stage 2	-	-	-	-	968	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.86	0	9.37
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	205	-	-	-	833
HCM Lane V/C Ratio	0.004	-	-	-	0.012
HCM Ctrl Dly (s/v)	7.5	0	-	-	9.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

2033 BACKGROUND – WEEKDAY PM

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	125	144	5	5	5
Future Vol, veh/h	5	125	144	5	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	139	160	6	6	6
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	7.9	8	7.5
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	0%	50%
Vol Thru, %	96%	97%	0%
Vol Right, %	0%	3%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	130	149	10
LT Vol	5	0	5
Through Vol	125	144	0
RT Vol	0	5	5
Lane Flow Rate	144	166	11
Geometry Grp	1	1	1
Degree of util (i)	0.164	0.186	0.014
Departure Headway (Hd)	4.084	4.041	4.396
Convergence, Y/N	Yes	Yes	Yes
Cap	875	886	819
Service Time	2.125	2.079	2.396
HCM Lane V/C Ratio	0.165	0.187	0.013
HCM Control Delay, s/veh	7.9	8	7.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0.7	0

Intersection	
Intersection Delay, s/veh	6.9
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	3	5	5	5	5	5
Future Vol, veh/h	3	5	5	5	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	6	6	6	6	6
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	6.6	7.1	6.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	50%
Vol Thru, %	0%	38%	50%
Vol Right, %	50%	63%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	10	8	10
LT Vol	5	0	5
Through Vol	0	3	5
RT Vol	5	5	0
Lane Flow Rate	11	9	11
Geometry Grp	1	1	1
Degree of util (i)	0.012	0.009	0.013
Departure Headway (Hd)	3.769	3.587	4.06
Convergence, Y/N	Yes	Yes	Yes
Cap	953	1002	886
Service Time	1.777	1.593	2.065
HCM Lane V/C Ratio	0.012	0.009	0.012
HCM Control Delay, s/veh	6.8	6.6	7.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0	0

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	3	5	144	5	5	125
Future Vol, veh/h	3	5	144	5	5	125
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	6	160	6	6	139
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.1	8.6	7.5
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	4%	0%	97%
Vol Thru, %	0%	38%	3%
Vol Right, %	96%	63%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	130	8	149
LT Vol	5	0	144
Through Vol	0	3	5
RT Vol	125	5	0
Lane Flow Rate	144	9	166
Geometry Grp	1	1	1
Degree of util (i)	0.152	0.01	0.202
Departure Headway (Hd)	3.776	3.941	4.387
Convergence, Y/N	Yes	Yes	Yes
Cap	956	892	815
Service Time	1.776	2.038	2.437
HCM Lane V/C Ratio	0.151	0.01	0.204
HCM Control Delay, s/veh	7.5	7.1	8.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0	0.8

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	76	40	0	0	0	106	41	27	30	0	0	95
Future Vol, veh/h	76	40	0	0	0	106	41	27	30	0	0	95
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	84	44	0	0	0	118	46	30	33	0	0	106
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.6	7.6	8.2	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	42%	66%	0%	0%
Vol Thru, %	28%	34%	0%	0%
Vol Right, %	31%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	98	116	106	95
LT Vol	41	76	0	0
Through Vol	27	40	0	0
RT Vol	30	0	106	95
Lane Flow Rate	109	129	118	106
Geometry Grp	1	1	1	1
Degree of util (i)	0.136	0.167	0.129	0.117
Departure Headway (Hd)	4.493	4.653	3.953	4.007
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	799	772	907	895
Service Time	2.514	2.674	1.975	2.029
HCM Lane V/C Ratio	0.136	0.167	0.13	0.118
HCM Control Delay, s/veh	8.2	8.6	7.6	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.6	0.4	0.4

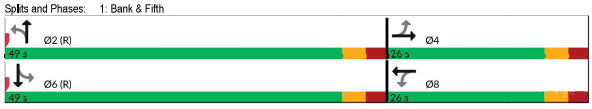
1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	48	55	61	39	17	462	30	599
Future Volume (vph)	48	55	61	39	17	462	30	599
Lane Group Flow (vph)	0	167	68	83	0	568	0	741
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		13.4	13.4	13.4		50.6		50.6
Actuated g/C Ratio		0.18	0.18	0.18		0.67		0.67
v/c Ratio		0.67	0.41	0.30		0.31		0.40
Control Delay (s/veh)		35.9	33.0	17.2		5.5		6.9
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		35.9	33.0	17.2		5.5		6.9
LOS		D	C	B		A		A
Approach Delay (s/veh)		35.9		24.3		5.5		6.9
Approach LOS		D		C		A		A
Queue Length 50th (m)		18.0	8.6	5.2		13.1		20.3
Queue Length 95th (m)		33.2	17.9	14.6		24.5		39.5
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		364	253	409		1859		1849
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.46	0.27	0.20		0.31		0.40

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay (s/veh): 11.0 — Intersection LOS: B
Intersection Capacity Utilization 68.6% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth



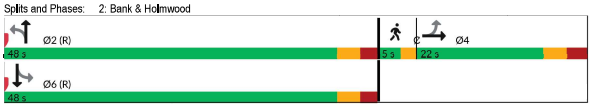
2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	18	26	510	29	574	
Future Volume (vph)	18	26	510	29	574	
Lane Group Flow (vph)	114	0	654	0	702	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	11.7		55.9		55.9	
Actuated g/C Ratio	0.16		0.75		0.75	
v/c Ratio	0.56		0.33		0.35	
Control Delay (s/veh)	38.8		5.1		3.2	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.8		5.1		3.2	
LOS	D		A		A	
Approach Delay (s/veh)	38.8		5.1		3.2	
Approach LOS	D		A		A	
Queue Length 50th (m)	15.1		15.2		12.4	
Queue Length 95th (m)	27.8		29.4		16.3	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	288		1961		2029	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.40		0.33		0.35	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay (s/veh): 6.8 — Intersection LOS: A
Intersection Capacity Utilization 66.0% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



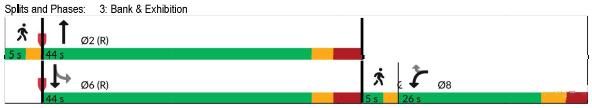
3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	125	64	481	119	511		
Future Volume (vph)	125	64	481	119	511		
Lane Group Flow (vph)	139	71	683	132	568		
Turn Type	Prot	Perm	NA	Perm	NA		
Protected Phases	8		2		6	1	7
Permitted Phases		8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (%)	32.5%	32.5%	55.0%	55.0%	55.0%	6%	6%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	13.0	13.0	53.8	53.8	53.8		
Actuated g/C Ratio	0.16	0.16	0.67	0.67	0.67		
v/c Ratio	0.56	0.30	0.37	0.35	0.27		
Control Delay (s/veh)	39.0	10.9	6.2	9.6	6.0		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	39.0	10.9	6.2	9.6	6.0		
LOS	D	B	A	A	A		
Approach Delay (s/veh)	29.5		6.2		6.7		
Approach LOS	C		A		A		
Queue Length 50th (m)	19.8	0.0	17.6	7.2	15.2		
Queue Length 95th (m)	34.3	9.9	32.2	20.7	27.0		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	379	320	1864	380	2113		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.37	0.22	0.37	0.35	0.27		

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay (s/veh): 9.5 — Intersection LOS: A
Intersection Capacity Utilization 61.0% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition



6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	57	21	703	766	
Future Volume (vph)	57	21	703	766	
Lane Group Flow (vph)	90	0	804	959	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.1		60.2	60.2	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.38		0.42	0.49	
Control Delay (s/veh)	31.6		4.8	8.1	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	31.6		4.8	8.1	
LOS	C		A	A	
Approach Delay (s/veh)	31.6		4.8	8.1	
Approach LOS	C		A	A	
Queue Length 50th (m)	10.7		18.1	36.2	
Queue Length 95th (m)	24.5		m21.2	49.8	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	275		1908	1957	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.33		0.42	0.49	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.49
Intersection Signal Delay (s/veh): 7.8 — Intersection LOS: A
Intersection Capacity Utilization 57.1% — ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	53	82	17	85	15	435	211	762		
Future Volume (vph)	53	82	17	85	15	435	211	762		
Lane Group Flow (vph)	0	184	0	395	0	523	0	1187		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	60.0	5.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	43.0	5.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%	47.8%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		24.4		24.4		54.0		54.0		
Actuated g/C Ratio		0.27		0.27		0.60		0.60		
v/c Ratio		0.72		0.98		0.31		0.95		
Control Delay (s/veh)		47.9		64.6		9.4		30.2		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		47.9		64.6		9.4		30.2		
LOS		D		E		A		C		
Approach Delay (s/veh)		47.9		64.6		9.4		30.2		
Approach LOS		D		E		A		C		
Queue Length 50th (m)		28.8		49.1		21.1		95.6		
Queue Length 95th (m)		#60.1		#107.2		30.0		#148.4		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		255		403		1672		1247		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.72		0.98		0.31		0.95		

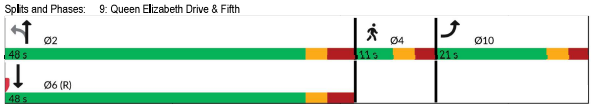
Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay (s/veh): 32.8 Intersection LOS: C
Intersection Capacity Utilization 96.4% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	36	39	200	530	
Future Volume (vph)	36	39	200	530	
Lane Group Flow (vph)	79	0	265	663	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	10.9		56.6	56.6	
Actuated g/C Ratio	0.14		0.71	0.71	
v/c Ratio	0.38		0.26	0.56	
Control Delay (s/veh)	36.8		5.2	8.2	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	36.8		5.2	8.2	
LOS	D		A	A	
Approach Delay (s/veh)	36.8		5.2	8.2	
Approach LOS	D		A	A	
Queue Length 50th (m)	11.3		11.3	38.6	
Queue Length 95th (m)	22.8		23.3	73.1	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	293		1017	1175	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.27		0.26	0.56	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay (s/veh): 9.7 Intersection LOS: A
Intersection Capacity Utilization 65.0% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 9: Queen Elizabeth Drive & Fifth



Intersection	
Int Delay, s/veh	14.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	239	219	572	584	51
Future Vol, veh/h	3	239	219	572	584	51
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	3	266	243	636	649	57

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1660	855	884	0	-	0
Stage 1	855	-	-	-	-	-
Stage 2	804	-	-	-	-	-
Critical Hdwy	6.675	6.275	4.175	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	2.2475	-	-	-
Pot Cap-1 Maneuver	95	351	748	-	-	-
Stage 1	409	-	-	-	-	-
Stage 2	395	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	32	285	607	-	-	-
Mov Cap-2 Maneuver	32	-	-	-	-	-
Stage 1	170	-	-	-	-	-
Stage 2	321	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	76.67	7.07	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	500	-	285	-	-
HCM Lane V/C Ratio	0.401	-	0.932	-	-
HCM Ctrl Dly (s/v)	14.8	4.1	76.7	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	1.9	-	8.8	-	-

Intersection	
Int Delay, s/veh	0,3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	24	0	800	832	2
Future Vol, veh/h	0	24	0	800	832	2
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	0	27	0	889	924	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	1012	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6,275	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3,3475	-	-	-	-
Pot Cap-1 Maneuver	0	285	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	-	259	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	20,51	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	259	-	-
HCM Lane V/C Ratio	-	0,103	-	-
HCM Ctrl Dly (s/v)	-	20,5	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0,3	-	-

Intersection	
Int Delay, s/veh	2,8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	54	57	48	263	507	70
Future Vol, veh/h	54	57	48	263	507	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	60	63	53	292	563	78

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1001	602	641	0	-	0
Stage 1	602	-	-	-	-	-
Stage 2	399	-	-	-	-	-
Critical Hdwy	6,4	6,2	4,1	-	-	-
Critical Hdwy Stg 1	5,4	-	-	-	-	-
Critical Hdwy Stg 2	5,4	-	-	-	-	-
Follow-up Hdwy	3,5	3,3	2,2	-	-	-
Pot Cap-1 Maneuver	271	503	953	-	-	-
Stage 1	551	-	-	-	-	-
Stage 2	682	-	-	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	253	503	953	-	-	-
Mov Cap-2 Maneuver	253	-	-	-	-	-
Stage 1	514	-	-	-	-	-
Stage 2	682	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	21,49	1,39	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	278	-	340	-	-
HCM Lane V/C Ratio	0,056	-	0,363	-	-
HCM Ctrl Dly (s/v)	9	0	21,5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0,2	-	1,6	-	-

Intersection	
Int Delay, s/veh	0,9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	76	553	7	1	628
Future Vol, veh/h	5	76	553	7	1	628
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	15	6	0	0	5
Mvmt Flow	6	84	614	8	1	698

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1069	411	0	0	722	0
Stage 1	718	-	-	-	-	-
Stage 2	351	-	-	-	-	-
Critical Hdwy	6,8	7,2	-	-	4,1	-
Critical Hdwy Stg 1	5,8	-	-	-	-	-
Critical Hdwy Stg 2	5,8	-	-	-	-	-
Follow-up Hdwy	3,5	3,45	-	-	2,2	-
Pot Cap-1 Maneuver	219	555	-	-	889	-
Stage 1	449	-	-	-	-	-
Stage 2	690	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	196	496	-	-	795	-
Mov Cap-2 Maneuver	196	-	-	-	-	-
Stage 1	402	-	-	-	-	-
Stage 2	688	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	13,74	0	0,02
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	496	795	-
HCM Lane V/C Ratio	-	-	0,17	0,001	-
HCM Ctrl Dly (s/v)	-	-	13,7	9,5	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0,6	0	-

Intersection	
Int Delay, s/veh	1,8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	125	129	5	144	45	5
Future Vol, veh/h	125	129	5	144	45	5
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	139	143	6	160	50	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	382	0	582	411
Stage 1	-	-	-	-	311	-
Stage 2	-	-	-	-	271	-
Critical Hdwy	-	-	4,12	-	6,42	6,22
Critical Hdwy Stg 1	-	-	-	-	5,42	-
Critical Hdwy Stg 2	-	-	-	-	5,42	-
Follow-up Hdwy	-	-	2,218	-	3,518	3,318
Pot Cap-1 Maneuver	-	-	1176	-	475	641
Stage 1	-	-	-	-	743	-
Stage 2	-	-	-	-	774	-
Platoon blocked, %	-	-			-	
Mov Cap-1 Maneuver	-	-	1052	-	378	513
Mov Cap-2 Maneuver	-	-	-	-	378	-
Stage 1	-	-	-	-	665	-
Stage 2	-	-	-	-	688	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0,28	15,82
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	388	-	-	60	-
HCM Lane V/C Ratio	0,143	-	-	0,005	-
HCM Ctrl Dly (s/v)	15,8	-	-	8,4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0,5	-	-	0	-

Intersection	
Int Delay, s/veh	2,5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	59	24	93	52	5
Future Vol, veh/h	5	59	24	93	52	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	66	27	103	58	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	130	0	-	0	155	78
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	77	-
Critical Hdwy	4,12	-	-	-	6,42	6,22
Critical Hdwy Stg 1	-	-	-	-	5,42	-
Critical Hdwy Stg 2	-	-	-	-	5,42	-
Follow-up Hdwy	2,218	-	-	-	3,518	3,318
Pot Cap-1 Maneuver	1455	-	-	-	836	982
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	946	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1455	-	-	-	833	982
Mov Cap-2 Maneuver	-	-	-	-	833	-
Stage 1	-	-	-	-	941	-
Stage 2	-	-	-	-	946	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0,58	0	9,61
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	141	-	-	-	844
HCM Lane V/C Ratio	0,004	-	-	-	0,075
HCM Ctrl Dly (s/v)	7,5	0	-	-	9,6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0,2

2033 BACKGROUND – SATURDAY

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	123	88	5	5	5
Future Vol, veh/h	5	123	88	5	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	137	98	6	6	6
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	7.8	7.6	7.3
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	0%	50%
Vol Thru, %	96%	95%	0%
Vol Right, %	0%	5%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	128	93	10
LT Vol	5	0	5
Through Vol	123	88	0
RT Vol	0	5	5
Lane Flow Rate	142	103	11
Geometry Grp	1	1	1
Degree of Util (X)	0.16	0.116	0.013
Departure Headway (Hd)	4.039	4.027	4.26
Convergence, Y/N	Yes	Yes	Yes
Cap	887	888	845
Service Time	2.065	2.061	2.26
HCM Lane V/C Ratio	0.16	0.116	0.013
HCM Control Delay, s/veh	7.8	7.6	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0.4	0

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	16	5	5	74	5	5
Future Vol, veh/h	16	5	5	74	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	6	6	82	6	6
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7	7.4	7
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	6%
Vol Thru, %	0%	76%	94%
Vol Right, %	50%	24%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	10	21	79
LT Vol	5	0	5
Through Vol	0	16	74
RT Vol	5	5	0
Lane Flow Rate	11	23	88
Geometry Grp	1	1	1
Degree of Util (X)	0.012	0.025	0.097
Departure Headway (Hd)	3.926	3.876	3.984
Convergence, Y/N	Yes	Yes	Yes
Cap	907	924	903
Service Time	1.97	1.896	1.991
HCM Lane V/C Ratio	0.012	0.025	0.097
HCM Control Delay, s/veh	7	7	7.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0.1	0.3

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	16	5	88	5	107	21
Future Vol, veh/h	16	5	88	5	107	21
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	6	98	6	119	23
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.4	8.1	8.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	84%	0%	95%
Vol Thru, %	0%	76%	5%
Vol Right, %	16%	24%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	128	21	93
LT Vol	107	0	88
Through Vol	0	16	5
RT Vol	21	5	0
Lane Flow Rate	142	23	103
Geometry Grp	1	1	1
Degree of Util (X)	0.167	0.027	0.126
Departure Headway (Hd)	4.222	4.234	4.391
Convergence, Y/N	Yes	Yes	Yes
Cap	839	851	805
Service Time	2.3	2.234	2.478
HCM Lane V/C Ratio	0.169	0.027	0.128
HCM Control Delay, s/veh	8.2	7.4	8.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0.1	0.4

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	49	0	0	0	95	60	40	37	0	0	107
Future Vol, veh/h	41	49	0	0	0	95	60	40	37	0	0	107
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	46	54	0	0	0	106	67	44	41	0	0	119
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.5	7.6	8.5	7.6
HCM LOS	A	A	A	A

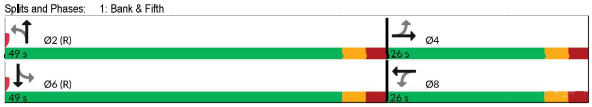
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	44%	46%	0%	0%
Vol Thru, %	29%	54%	0%	0%
Vol Right, %	27%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	137	90	95	107
LT Vol	60	41	0	0
Through Vol	40	49	0	0
RT Vol	37	0	95	107
Lane Flow Rate	152	100	106	119
Geometry Grp	1	1	1	1
Degree of Util (X)	0.188	0.131	0.119	0.131
Departure Headway (Hd)	4.442	4.726	4.044	3.966
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	808	759	887	904
Service Time	2.464	2.753	2.069	1.99
HCM Lane V/C Ratio	0.188	0.132	0.12	0.132
HCM Control Delay, s/veh	8.5	8.5	7.6	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.4	0.4	0.5

1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	46	41	69	45	21	489	20	547
Future Volume (vph)	46	41	69	45	21	489	20	547
Lane Group Flow (vph)	0	145	77	108	0	593	0	660
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		12.2	12.2	12.2		51.8		51.8
Actuated g/C Ratio		0.16	0.16	0.16		0.69		0.69
v/c Ratio		0.65	0.48	0.40		0.31		0.34
Control Delay (s/veh)		35.0	37.0	18.0		4.9		5.9
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		35.0	37.0	18.0		4.9		5.9
LOS		C	D	B		A		A
Approach Delay (s/veh)		35.0		25.9		4.9		5.9
Approach LOS		C		C		A		A
Queue Length 50th (m)		14.8	10.0	6.2		12.8		16.2
Queue Length 95th (m)		29.3	20.2	17.3		23.4		31.8
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		354	269	415		1915		1939
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.41	0.29	0.26		0.31		0.34

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay (s/veh): 10.5 Intersection LOS: B
Intersection Capacity Utilization 57.9% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth

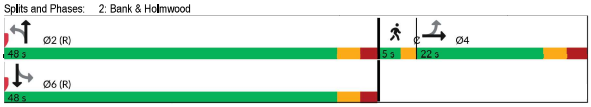


2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	10	29	497	31	559	
Future Volume (vph)	10	29	497	31	559	
Lane Group Flow (vph)	113	0	634	0	681	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	11.7		55.9		55.9	
Actuated g/C Ratio	0.16		0.75		0.75	
v/c Ratio	0.56		0.32		0.34	
Control Delay (s/veh)	38.9		2.3		3.4	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.9		2.3		3.4	
LOS	D		A		A	
Approach Delay (s/veh)	38.9		2.3		3.4	
Approach LOS	D		A		A	
Queue Length 50th (m)	14.9		3.6		13.0	
Queue Length 95th (m)	27.7		9.0		17.2	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	285		1958		2023	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.40		0.32		0.34	

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay (s/veh): 5.7 Intersection LOS: A
Intersection Capacity Utilization 65.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	88	72	455	126	485		
Future Volume (vph)	88	72	455	126	485		
Lane Group Flow (vph)	98	80	639	140	539		
Turn Type	Prot	Perm	NA	Perm	NA		
Protected Phases	8		2		6	1	7
Permitted Phases		8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	39.0	39.0	39.0	5.0	5.0
Total Split (s)	26.0	26.0	39.0	39.0	39.0	5.0	5.0
Total Split (%)	34.7%	34.7%	52.0%	52.0%	52.0%	7%	7%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	3.5
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	11.2	11.2	55.2	55.2	55.2		
Actuated g/C Ratio	0.15	0.15	0.74	0.74	0.74		
v/c Ratio	0.43	0.34	0.31	0.32	0.23		
Control Delay (s/veh)	34.6	11.6	4.9	5.7	3.4		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	34.6	11.6	4.9	5.7	3.4		
LOS	C	B	A	A	A		
Approach Delay (s/veh)	24.3		4.9		3.8		
Approach LOS	C		A		A		
Queue Length 50th (m)	13.0	0.0	14.1	4.8	9.2		
Queue Length 95th (m)	25.1	10.5	26.1	9.5	13.4		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	405	348	2055	433	2314		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.24	0.23	0.31	0.32	0.23		

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 60 (80%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.43
Intersection Signal Delay (s/veh): 6.7 Intersection LOS: A
Intersection Capacity Utilization 58.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition

6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	39	19	683	722	
Future Volume (vph)	39	19	683	722	
Lane Group Flow (vph)	56	0	780	870	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	19.5	35.2	35.2	35.2	4.0
Total Split (s)	20.0	65.0	65.0	65.0	5.0
Total Split (%)	22.2%	72.2%	72.2%	72.2%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.0		60.3	60.3	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.24		0.40	0.43	
Control Delay (s/veh)	30.0		5.2	7.5	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	30.0		5.2	7.5	
LOS	C		A	A	
Approach Delay (s/veh)	30.0		5.2	7.5	
Approach LOS	C		A	A	
Queue Length 50th (m)	6.6		20.2	31.4	
Queue Length 95th (m)	17.3		26.2	42.3	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	244		1930	2004	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.23		0.40	0.43	

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 28 (31%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.43
Intersection Signal Delay (s/veh): 7.2 Intersection LOS: A
Intersection Capacity Utilization 55.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	42	38	20	58	30	493	85	550		
Future Volume (vph)	42	38	20	58	30	493	85	550		
Lane Group Flow (vph)	0	138	0	198	0	618	0	767		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	20.0	20.0	20.0	20.0	54.0	54.0	11.0	54.0	5.0	5.0
Total Split (s)	20.0	20.0	20.0	20.0	54.0	54.0	11.0	54.0	5.0	5.0
Total Split (%)	22.2%	22.2%	22.2%	22.2%	60.0%	60.0%	12.2%	60.0%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	2.9	3.0	0.0	0.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		19.2		19.2		59.2		59.2		
Actuated g/C Ratio		0.21		0.21		0.66		0.66		
v/c Ratio		0.62		0.65		0.35		0.50		
Control Delay (s/veh)		45.3		33.3		7.4		6.9		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		45.3		33.3		7.4		6.9		
LOS		D		C		A		A		
Approach Delay (s/veh)		45.3		33.3		7.4		6.9		
Approach LOS		D		C		A		A		
Queue Length 50th (m)		21.7		21.3		21.7		17.3		
Queue Length 95th (m)		#43.9		#45.9		30.5		21.6		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		224		303		1770		1521		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.62		0.65		0.35		0.50		

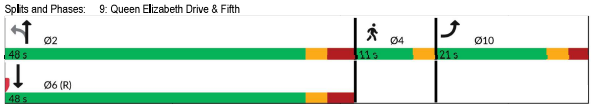
Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 33 (37%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay (s/veh): 13.2		Intersection LOS: B	
Intersection Capacity Utilization 72.3%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	55	42	248	358	
Future Volume (vph)	55	42	248	358	
Lane Group Flow (vph)	95	0	323	457	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	11.3		56.2	56.2	
Actuated g/C Ratio	0.14		0.70	0.70	
v/c Ratio	0.43		0.30	0.39	
Control Delay (s/veh)	37.5		5.7	6.3	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	37.5		5.7	6.3	
LOS	D		A	A	
Approach Delay (s/veh)	37.5		5.7	6.3	
Approach LOS	D		A	A	
Queue Length 50th (m)	13.6		14.5	22.3	
Queue Length 95th (m)	26.1		29.9	44.1	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	297		1060	1165	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.32		0.30	0.39	

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.43			
Intersection Signal Delay (s/veh): 9.5		Intersection LOS: A	
Intersection Capacity Utilization 63.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 9: Queen Elizabeth Drive & Fifth



Intersection						
Int Delay, s/veh	6.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	182	119	571	526	56
Future Vol, veh/h	3	182	119	571	526	56
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	3	202	132	634	584	62

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1375	794	825	0	-	0
Stage 1	794	-	-	-	-	-
Stage 2	582	-	-	-	-	-
Critical Hdwy	6.675	6.275	4.175	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	2.2475	-	-	-
Pot Cap-1 Maneuver	145	381	788	-	-	-
Stage 1	438	-	-	-	-	-
Stage 2	516	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	71	309	639	-	-	-
Mov Cap-2 Maneuver	71	-	-	-	-	-
Stage 1	266	-	-	-	-	-
Stage 2	419	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	36.13	3.86	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	527	-	309	-	-
HCM Lane V/C Ratio	0.207	-	0.653	-	-
HCM Ctrl Dly (s/v)	12.1	2.1	36.1	-	-
HCM Lane LOS	B	A	E	-	-
HCM 95th %tile Q(veh)	0.8	-	4.3	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	33	0	679	699	0
Future Vol, veh/h	1	33	0	679	699	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	1	37	0	754	777	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1154	777	-	0	-	0
Stage 1	777	-	-	-	-	-
Stage 2	377	-	-	-	-	-
Critical Hdwy	6.675	6.275	-	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	-	-	-	-
Pot Cap-1 Maneuver	200	390	0	-	-	0
Stage 1	446	-	0	-	-	0
Stage 2	657	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	200	390	-	-	-	-
Mov Cap-2 Maneuver	200	-	-	-	-	-
Stage 1	446	-	-	-	-	-
Stage 2	657	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	15.19	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	390	-
HCM Lane V/C Ratio	-	0.094	-
HCM Ctrl Dly (s/v)	-	15.2	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	0.3	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	71	57	57	216	259	131
Future Vol, veh/h	71	57	57	216	259	131
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	79	63	63	240	288	146

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	727	361	433	0	-	0
Stage 1	361	-	-	-	-	-
Stage 2	367	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	394	689	1137	-	-	-
Stage 1	710	-	-	-	-	-
Stage 2	705	-	-	-	-	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	368	689	1137	-	-	-
Mov Cap-2 Maneuver	368	-	-	-	-	-
Stage 1	664	-	-	-	-	-
Stage 2	705	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	16.13	1.74	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	376	-	465	-	-
HCM Lane V/C Ratio	0.056	-	0.306	-	-
HCM Ctrl Dly (s/v)	8.4	0	16.1	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.3	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	73	508	19	2	605
Future Vol, veh/h	6	73	508	19	2	605
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	15	6	0	0	5
Mvmt Flow	7	81	564	21	2	672

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1016	393	0	0	686	0
Stage 1	675	-	-	-	-	-
Stage 2	341	-	-	-	-	-
Critical Hdwy	6.8	7.2	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.45	-	-	2.2	-
Pot Cap-1 Maneuver	238	571	-	-	917	-
Stage 1	473	-	-	-	-	-
Stage 2	698	-	-	-	-	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	212	510	-	-	820	-
Mov Cap-2 Maneuver	212	-	-	-	-	-
Stage 1	423	-	-	-	-	-
Stage 2	696	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	13.38	0	0.03
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	510	820	-
HCM Lane V/C Ratio	-	-	0.159	0.003	-
HCM Ctrl Dly (s/v)	-	-	13.4	9.4	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Intersection	
Int Delay, s/veh	3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	123	124	5	88	72	5
Future Vol, veh/h	123	124	5	88	72	5
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	137	138	6	98	80	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	374	0	514	406
Stage 1	-	-	-	-	306	-
Stage 2	-	-	-	-	209	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1184	-	520	645
Stage 1	-	-	-	-	747	-
Stage 2	-	-	-	-	826	-
Platoon blocked, %	-	-			-	
Mov Cap-1 Maneuver	-	-	1059	-	414	516
Mov Cap-2 Maneuver	-	-	-	-	414	-
Stage 1	-	-	-	-	668	-
Stage 2	-	-	-	-	735	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.45	15.78
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	419	-	-	97	-
HCM Lane V/C Ratio	0.204	-	-	0.005	-
HCM Ctrl Dly (s/v)	15.8	-	-	8.4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0	-

Intersection	
Int Delay, s/veh	3,3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	32	76	112	96	5
Future Vol, veh/h	5	32	76	112	96	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	36	84	124	107	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	209	0	-	0	193	147
Stage 1	-	-	-	-	147	-
Stage 2	-	-	-	-	47	-
Critical Hdwy	4,12	-	-	-	6,42	6,22
Critical Hdwy Stg 1	-	-	-	-	5,42	-
Critical Hdwy Stg 2	-	-	-	-	5,42	-
Follow-up Hdwy	2,218	-	-	-	3,518	3,318
Pot Cap-1 Maneuver	1362	-	-	-	796	900
Stage 1	-	-	-	-	881	-
Stage 2	-	-	-	-	976	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1362	-	-	-	792	900
Mov Cap-2 Maneuver	-	-	-	-	792	-
Stage 1	-	-	-	-	877	-
Stage 2	-	-	-	-	976	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1,03	0	10,26
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	243	-	-	-	797
HCM Lane V/C Ratio	0,004	-	-	-	0,141
HCM Ctrl Dly (s/v)	7,7	0	-	-	10,3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0,5

2033 BACKGROUND – SUNDAY

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	148	104	5	5	5
Future Vol, veh/h	5	148	104	5	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	164	116	6	6	6
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	8	7.7	7.4
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	0%	50%
Vol Thru, %	97%	95%	0%
Vol Right, %	0%	5%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	153	109	10
LT Vol	5	0	5
Through Vol	148	104	0
RT Vol	0	5	5
Lane Flow Rate	170	121	11
Geometry Grp	1	1	1
Degree of Util (X)	0.191	0.136	0.013
Departure Headway (Hd)	4.051	4.053	4.354
Convergence, Y/N	Yes	Yes	Yes
Cap	886	882	827
Service Time	2.08	2.092	2.354
HCM Lane V/C Ratio	0.192	0.137	0.013
HCM Control Delay, s/veh	8	7.7	7.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0.5	0

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	15	5	5	165	5	5
Future Vol, veh/h	15	5	5	165	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	6	6	183	6	6
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.1	8	7.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	3%
Vol Thru, %	0%	75%	97%
Vol Right, %	50%	25%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	10	20	170
LT Vol	5	0	5
Through Vol	0	15	165
RT Vol	5	5	0
Lane Flow Rate	11	22	189
Geometry Grp	1	1	1
Degree of Util (X)	0.013	0.024	0.209
Departure Headway (Hd)	4.098	3.944	3.976
Convergence, Y/N	Yes	Yes	Yes
Cap	860	904	907
Service Time	2.185	1.985	1.986
HCM Lane V/C Ratio	0.013	0.024	0.208
HCM Control Delay, s/veh	7.2	7.1	8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0.1	0.8

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	15	5	57	3	128	25
Future Vol, veh/h	15	5	57	3	128	25
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	6	63	3	142	28
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.4	7.9	8.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	84%	0%	95%
Vol Thru, %	0%	75%	5%
Vol Right, %	16%	25%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	153	20	60
LT Vol	128	0	57
Through Vol	0	15	3
RT Vol	25	5	0
Lane Flow Rate	170	22	67
Geometry Grp	1	1	1
Degree of Util (X)	0.196	0.026	0.082
Departure Headway (Hd)	4.157	4.245	4.44
Convergence, Y/N	Yes	Yes	Yes
Cap	857	848	795
Service Time	2.213	2.245	2.535
HCM Lane V/C Ratio	0.198	0.026	0.084
HCM Control Delay, s/veh	8.2	7.4	7.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0.1	0.3

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	70	83	0	0	0	233	101	67	62	0	0	106
Future Vol, veh/h	70	83	0	0	0	233	101	67	62	0	0	106
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	78	92	0	0	0	259	112	74	69	0	0	118
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10.2	9.7	10.9	8.7
HCM LOS	B	A	B	A

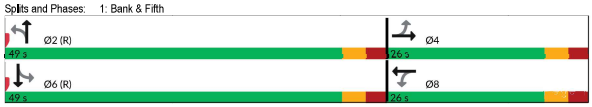
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	44%	46%	0%	0%
Vol Thru, %	29%	54%	0%	0%
Vol Right, %	27%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	230	153	233	106
LT Vol	101	70	0	0
Through Vol	67	83	0	0
RT Vol	62	0	233	106
Lane Flow Rate	256	170	259	118
Geometry Grp	1	1	1	1
Degree of Util (X)	0.355	0.253	0.322	0.157
Departure Headway (Hd)	5.113	5.349	4.573	4.799
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	708	675	792	750
Service Time	3.113	3.349	2.573	2.809
HCM Lane V/C Ratio	0.362	0.252	0.327	0.157
HCM Control Delay, s/veh	10.9	10.2	9.7	8.7
HCM Lane LOS	B	B	A	A
HCM 95th-tile Q	1.6	1	1.4	0.6

1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	54	38	123	67	16	491	23	516
Future Volume (vph)	54	38	123	67	16	491	23	516
Lane Group Flow (vph)	0	131	137	117	0	594	0	646
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		14.5	14.5	14.5		49.5		49.5
Actuated g/C Ratio		0.19	0.19	0.19		0.66		0.66
v/c Ratio		0.55	0.67	0.38		0.32		0.36
Control Delay (s/veh)		30.6	43.3	20.4		8.0		6.9
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		30.6	43.3	20.4		8.0		6.9
LOS		C	D	C		A		A
Approach Delay (s/veh)		30.6		32.7		8.0		6.9
Approach LOS		C		C		A		A
Queue Length 50th (m)		14.2	18.0	9.6		34.9		17.9
Queue Length 95th (m)		27.4	32.3	20.9		54.0		33.6
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		332	288	423		1845		1810
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.39	0.48	0.28		0.32		0.36

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 42 (56%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay (s/veh): 13.3 Intersection LOS: B
Intersection Capacity Utilization 60.0% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth

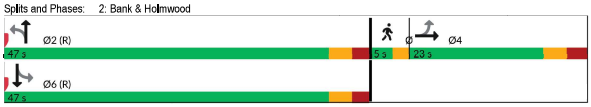


2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	18	32	519	23	551	
Future Volume (vph)	18	32	519	23	551	
Lane Group Flow (vph)	111	0	704	0	678	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	23.0	47.0	47.0	47.0	47.0	5.0
Total Split (s)	23.0	47.0	47.0	47.0	47.0	5.0
Total Split (%)	30.7%	62.7%	62.7%	62.7%	62.7%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	11.6		56.1		56.1	
Actuated g/C Ratio	0.15		0.75		0.75	
v/c Ratio	0.55		0.37		0.33	
Control Delay (s/veh)	38.6		7.5		8.9	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.6		7.5		8.9	
LOS	D		A		A	
Approach Delay (s/veh)	38.6		7.5		8.9	
Approach LOS	D		A		A	
Queue Length 50th (m)	14.7		33.4		24.5	
Queue Length 95th (m)	27.3		54.2		48.9	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	304		1890		2043	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.37		0.37		0.33	

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 16 (21%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay (s/veh): 10.5 Intersection LOS: B
Intersection Capacity Utilization 67.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood

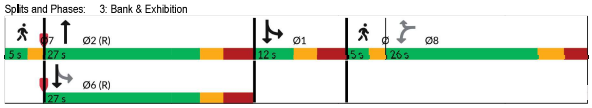


3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø3	Ø6	Ø7
Lane Configurations								
Traffic Volume (vph)	126	66	417	178	450			
Future Volume (vph)	126	66	417	178	450			
Lane Group Flow (vph)	140	73	597	198	500			
Turn Type	Perm	Perm	NA	custom	NA			
Protected Phases			2	1	1 6	3	6	7
Permitted Phases	8	8		6				
Detector Phase	8	8	2	1	1 6			
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	1.0		3.0	10.0	3.0
Minimum Split (s)	26.0	26.0	27.0	7.9		5.0	27.0	5.0
Total Split (s)	26.0	26.0	27.0	12.0		5.0	27.0	5.0
Total Split (%)	34.7%	34.7%	36.0%	16.0%		7%	36%	7%
Yellow Time (s)	3.3	3.3	3.0	3.0		2.0	3.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9		0.0	3.9	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0				
Total Lost Time (s)	6.3	6.3	6.9	6.9				
Lead/Lag	Lag	Lag				Lead		
Lead-Lag Optimize?						Yes		
Recall Mode	None	None	C-Max	None		None	C-Max	None
Act Effct Green (s)	13.1	13.1	40.0	45.1	53.4			
Actuated g/C Ratio	0.17	0.17	0.53	0.60	0.71			
v/c Ratio	0.56	0.29	0.40	0.47	0.22			
Control Delay (s/veh)	36.6	9.8	12.2	15.0	5.9			
Queue Delay	0.0	0.0	0.0	0.0	0.0			
Total Delay (s/veh)	36.6	9.8	12.2	15.0	5.9			
LOS	D	A	B	B	A			
Approach Delay (s/veh)	27.4		12.2		8.5			
Approach LOS	C		B		A			
Queue Length 50th (m)	18.5	0.0	24.3	8.2	11.4			
Queue Length 95th (m)	32.4	9.3	42.2	29.1	28.5			
Internal Link Dist (m)	30.6		33.7		44.8			
Turn Bay Length (m)				40.0				
Base Capacity (vph)	377	343	1486	424	2235			
Starvation Cap Reductn	0	0	0	0	0			
Spillback Cap Reductn	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0			
Reduced v/c Ratio	0.37	0.21	0.40	0.47	0.22			

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay (s/veh): 12.6 Intersection LOS: B
Intersection Capacity Utilization 60.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition



6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	54	17	598	659	
Future Volume (vph)	54	17	598	659	
Lane Group Flow (vph)	83	0	683	795	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	4.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	None	C-Max	C-Max	C-Max	None
Act Effct Green (s)	11.1		72.4	72.4	
Actuated g/C Ratio	0.12		0.80	0.80	
v/c Ratio	0.43		0.29	0.33	
Control Delay (s/veh)	35.9		8.5	3.7	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	35.9		8.5	3.7	
LOS	D		A	A	
Approach Delay (s/veh)	35.9		8.5	3.7	
Approach LOS	D		A	A	
Queue Length 50th (m)	10.5		42.7	17.1	
Queue Length 95th (m)	23.2		60.4	28.5	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	276		2328	2400	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.30		0.29	0.33	

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.43
Intersection Signal Delay (s/veh): 7.5 Intersection LOS: A
Intersection Capacity Utilization 50.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø6	Ø7
Lane Configurations											
Traffic Volume (vph)	43	33	16	51	19	472	118	509			
Future Volume (vph)	43	33	16	51	19	472	118	509			
Lane Group Flow (vph)	0	118	0	195	0	558	0	790			
Turn Type	Perm	NA	Perm	NA	Perm	NA	custom	NA			
Protected Phases		4		8		2	1	1 6	3	6	7
Permitted Phases	4		8		2		6				
Detector Phase	4	4	8	8	2	2	1	1 6			
Switch Phase											
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0		1.0	17.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0		5.0	43.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0		5.0	43.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%		6%	48%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		2.0	3.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9		0.0	3.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0					
Total Lost Time (s)		5.6		5.6		6.0					
Lead/Lag	Lag	Lag	Lag	Lag					Lead		Lead
Lead-Lag Optimize?			Yes	Yes							Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None		None	C-Max	None
Act Effct Green (s)		15.2		15.2		43.9		57.4			
Actuated g/C Ratio		0.17		0.17		0.49		0.64			
v/c Ratio		0.78		0.71		0.40		0.53			
Control Delay (s/veh)		66.7		33.7		17.2		14.0			
Queue Delay		0.0		0.0		0.0		0.0			
Total Delay (s/veh)		66.7		33.7		17.2		14.0			
LOS		E		C		B		B			
Approach Delay (s/veh)		66.7		33.7		17.2		14.0			
Approach LOS		E		C		B		B			
Queue Length 50th (m)		19.8		18.3		31.7		42.8			
Queue Length 95th (m)		35.2		37.4		50.4		68.7			
Internal Link Dist (m)		75.1		136.0		63.1		79.0			
Turn Bay Length (m)											
Base Capacity (vph)		199		335		1390		1508			
Starvation Cap Reductn		0		0		0		0			
Spillback Cap Reductn		0		0		0		0			
Storage Cap Reductn		0		0		0		0			
Reduced v/c Ratio		0.59		0.58		0.40		0.52			

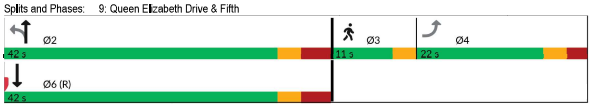
Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 23 (26%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay (s/veh): 21.1 Intersection LOS: C
Intersection Capacity Utilization 73.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	13	207	13	12	
Future Volume (vph)	13	207	13	12	
Lane Group Flow (vph)	162	0	244	42	
Turn Type	Perm	Perm	NA	NA	
Protected Phases			2	6	3
Permitted Phases	4	2			
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	42.0	42.0	42.0	9.7
Total Split (s)	22.0	42.0	42.0	42.0	11.0
Total Split (%)	29.3%	56.0%	56.0%	56.0%	15%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?	Yes				Yes
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	13.8		48.7	48.7	
Actuated g/C Ratio	0.18		0.65	0.65	
v/c Ratio	0.60		0.31	0.04	
Control Delay (s/veh)	36.9		7.9	5.9	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	36.9		7.9	5.9	
LOS	D		A	A	
Approach Delay (s/veh)	36.9		7.9	5.9	
Approach LOS	D		A	A	
Queue Length 50th (m)	21.4		12.9	1.8	
Queue Length 95th (m)	36.0		29.8	6.0	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	330		775	992	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.49		0.31	0.04	

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay (s/veh): 18.2 Intersection LOS: B
Intersection Capacity Utilization 39.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Queen Elizabeth Drive & Fifth



Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	156	110	553	503	62
Future Vol, veh/h	5	156	110	553	503	62
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	6	173	122	614	559	69

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1323	771	806	0	-	0
Stage 1	771	-	-	-	-	-
Stage 2	552	-	-	-	-	-
Critical Hdwy	6.675	6.275	4.175	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	2.2475	-	-	-
Pot Cap-1 Maneuver	156	393	801	-	-	-
Stage 1	448	-	-	-	-	-
Stage 2	535	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	80	319	650	-	-	-
Mov Cap-2 Maneuver	80	-	-	-	-	-
Stage 1	281	-	-	-	-	-
Stage 2	434	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	28.97	3.56	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	539	-	319	-	-
HCM Lane V/C Ratio	0.188	-	0.544	-	-
HCM Ctrl Dly (s/v)	11.8	1.9	29	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q(veh)	0.7	-	3.1	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	71	0	637	663	1
Future Vol, veh/h	2	71	0	637	663	1
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	2	79	0	708	737	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1177	823	-	0	-	0
Stage 1	823	-	-	-	-	-
Stage 2	354	-	-	-	-	-
Critical Hdwy	6.675	6.275	-	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	-	-	-	-
Pot Cap-1 Maneuver	193	366	0	-	-	-
Stage 1	424	-	0	-	-	-
Stage 2	675	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	160	333	-	-	-	-
Mov Cap-2 Maneuver	160	-	-	-	-	-
Stage 1	385	-	-	-	-	-
Stage 2	613	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	19.13	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	333	-	-
HCM Lane V/C Ratio	-	0.237	-	-
HCM Ctrl Dly (s/v)	-	19.1	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.9	-	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	88	138	72	131	68	60
Future Vol, veh/h	88	138	72	131	68	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	98	153	80	146	76	67

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	414	109	142	0	-	0
Stage 1	109	-	-	-	-	-
Stage 2	306	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	598	950	1453	-	-	-
Stage 1	921	-	-	-	-	-
Stage 2	752	-	-	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	562	950	1453	-	-	-
Mov Cap-2 Maneuver	562	-	-	-	-	-
Stage 1	865	-	-	-	-	-
Stage 2	752	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	12.21	2.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	638	-	749	-	-
HCM Lane V/C Ratio	0.055	-	0.335	-	-
HCM Ctrl Dly (s/v)	7.6	0	12.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	1.5	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	163	475	20	0	613
Future Vol, veh/h	7	163	475	20	0	613
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	15	6	0	0	5
Mvmt Flow	8	181	528	22	0	681

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	979	375	0	0	-	-
Stage 1	639	-	-	-	-	-
Stage 2	341	-	-	-	-	-
Critical Hdwy	6.8	7.2	-	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.45	-	-	-	-
Pot Cap-1 Maneuver	251	587	-	-	0	-
Stage 1	493	-	-	-	0	-
Stage 2	698	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	224	525	-	-	-	-
Mov Cap-2 Maneuver	224	-	-	-	-	-
Stage 1	441	-	-	-	-	-
Stage 2	698	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	15.44	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	525	-
HCM Lane V/C Ratio	-	-	0.345	-
HCM Ctrl Dly (s/v)	-	-	15.4	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	1.5	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	148	151	5	104	87	5
Future Vol, veh/h	148	151	5	104	87	5
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	164	168	6	116	97	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	432	0	575	448
Stage 1	-	-	-	-	348	-
Stage 2	-	-	-	-	227	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1127	-	480	610
Stage 1	-	-	-	-	715	-
Stage 2	-	-	-	-	811	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1008	-	381	488
Mov Cap-2 Maneuver	-	-	-	-	381	-
Stage 1	-	-	-	-	639	-
Stage 2	-	-	-	-	721	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.39	17.66
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	386	-	-	83	-
HCM Lane V/C Ratio	0.265	-	-	0.006	-
HCM Ctrl Dly (s/v)	17.7	-	-	8.6	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.1	-	-	0	-

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	52	55	77	174	5
Future Vol, veh/h	5	52	55	77	174	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	58	61	86	193	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	147	0	-	0	173	104
Stage 1	-	-	-	-	104	-
Stage 2	-	-	-	-	69	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1435	-	-	-	817	951
Stage 1	-	-	-	-	920	-
Stage 2	-	-	-	-	954	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1435	-	-	-	814	951
Mov Cap-2 Maneuver	-	-	-	-	814	-
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	954	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.66	0	10.82
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	158	-	-	-	817
HCM Lane V/C Ratio	0.004	-	-	-	0.243
HCM Ctrl Dly (s/v)	7.5	0	-	-	10.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	1

2033 BACKGROUND – MINOR EVENT INGRESS

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	227	0	0	0	0	122
Future Vol, veh/h	227	0	0	0	0	122
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	252	0	0	0	0	136
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	9.4	0	7.6
HCM LOS	A	-	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	0%
Vol Thru, %	0%	100%	0%
Vol Right, %	0%	0%	100%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	227	0	122
LT Vol	227	0	0
Through Vol	0	0	0
RT Vol	0	0	122
Lane Flow Rate	252	0	136
Geometry Grp	1	1	1
Degree of Util (X)	0.306	0	0.148
Departure Headway (Hd)	4.37	4.487	3.932
Convergence, Y/N	Yes	Yes	Yes
Cap	817	0	918
Service Time	2.426	2.5	1.932
HCM Lane V/C Ratio	0.308	0	0.148
HCM Control Delay, s/veh	9.4	7.5	7.6
HCM Lane LOS	A	N	A
HCM 95th-tile Q	1.3	0	0.5

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	11	11	81	81	114	114
Future Vol, veh/h	11	11	81	81	114	114
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	12	90	90	127	127
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.6	9	9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	50%
Vol Thru, %	0%	50%	50%
Vol Right, %	50%	50%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	228	22	162
LT Vol	114	0	81
Through Vol	0	11	81
RT Vol	114	11	0
Lane Flow Rate	253	24	180
Geometry Grp	1	1	1
Degree of Util (X)	0.297	0.03	0.232
Departure Headway (Hd)	4.225	4.415	4.631
Convergence, Y/N	Yes	Yes	Yes
Cap	854	811	778
Service Time	2.24	2.44	2.649
HCM Lane V/C Ratio	0.296	0.03	0.231
HCM Control Delay, s/veh	9	7.6	9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.2	0.1	0.9

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	32	0	0	161	0	0
Future Vol, veh/h	32	0	0	161	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	0	0	179	0	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.3	7.9	0
HCM LOS	A	A	-

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	0%	0%	0%
Vol Thru, %	100%	100%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	0	32	161
LT Vol	0	0	0
Through Vol	0	32	161
RT Vol	0	0	0
Lane Flow Rate	0	36	179
Geometry Grp	1	1	1
Degree of Util (X)	0	0.04	0.197
Departure Headway (Hd)	4.304	4.066	3.961
Convergence, Y/N	Yes	Yes	Yes
Cap	0	879	911
Service Time	2.392	2.098	1.967
HCM Lane V/C Ratio	0	0.041	0.196
HCM Control Delay, s/veh	7.4	7.3	7.9
HCM Lane LOS	N	A	A
HCM 95th-tile Q	0	0.1	0.7

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	62	53	0	0	0	143	61	43	37	0	0	85
Future Vol, veh/h	62	53	0	0	0	143	61	43	37	0	0	85
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	69	59	0	0	0	159	68	48	41	0	0	94
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.8	8	8.8	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	43%	54%	0%	0%
Vol Thru, %	30%	46%	0%	0%
Vol Right, %	26%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	141	115	143	85
LT Vol	61	62	0	0
Through Vol	43	53	0	0
RT Vol	37	0	143	85
Lane Flow Rate	157	128	159	94
Geometry Grp	1	1	1	1
Degree of Util (X)	0.2	0.17	0.179	0.109
Departure Headway (Hd)	4.603	4.779	4.058	4.159
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	779	750	883	859
Service Time	2.636	2.81	2.089	2.195
HCM Lane V/C Ratio	0.202	0.171	0.18	0.109
HCM Control Delay, s/veh	8.8	8.8	8	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.6	0.6	0.4

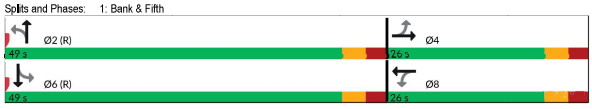
1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	53	59	69	48	17	501	26	578
Future Volume (vph)	53	59	69	48	17	501	26	578
Lane Group Flow (vph)	0	163	77	121	0	609	0	698
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		13.7	13.7	13.7		50.3		50.3
Actuated g/C Ratio		0.18	0.18	0.18		0.67		0.67
v/c Ratio		0.67	0.44	0.39		0.32		0.37
Control Delay (s/veh)		37.4	33.2	16.1		5.8		6.8
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		37.4	33.2	16.1		5.8		6.8
LOS		D	C	B		A		A
Approach Delay (s/veh)		37.4		22.7		5.8		6.8
Approach LOS		D		C		A		A
Queue Length 50th (m)		18.9	9.8	6.4		14.4		19.0
Queue Length 95th (m)		33.9	19.6	17.8		26.6		36.3
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		356	265	426		1902		1896
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.46	0.29	0.28		0.32		0.37

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay (s/veh): 11.3 — Intersection LOS: B
Intersection Capacity Utilization 63.8% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth



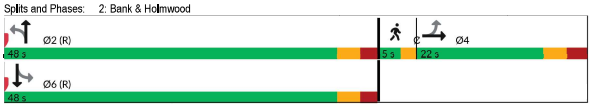
2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	26	53	508	24	564	
Future Volume (vph)	26	53	508	24	564	
Lane Group Flow (vph)	119	0	707	0	693	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	11.6		56.0		56.0	
Actuated g/C Ratio	0.15		0.75		0.75	
v/c Ratio	0.55		0.38		0.33	
Control Delay (s/veh)	38.2		5.4		3.1	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.2		5.4		3.1	
LOS	D		A		A	
Approach Delay (s/veh)	38.2		5.4		3.1	
Approach LOS	D		A		A	
Queue Length 50th (m)	15.8		17.1		12.2	
Queue Length 95th (m)	28.8		32.7		15.8	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	304		1838		2101	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.39		0.38		0.33	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay (s/veh): 6.9 — Intersection LOS: A
Intersection Capacity Utilization 67.8% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



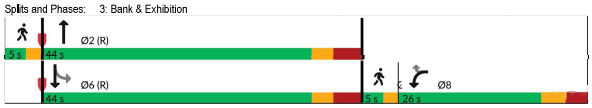
3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	118	86	433	165	434		
Future Volume (vph)	118	86	433	165	434		
Lane Group Flow (vph)	131	96	688	183	482		
Turn Type	Prot	Perm	NA	Perm	NA		
Protected Phases	8		2		6	1	7
Permitted Phases		8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (%)	32.5%	32.5%	55.0%	55.0%	55.0%	6%	6%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	12.3	12.3	54.5	54.5	54.5		
Actuated g/C Ratio	0.15	0.15	0.68	0.68	0.68		
v/c Ratio	0.52	0.38	0.36	0.46	0.22		
Control Delay (s/veh)	38.3	11.3	5.3	11.2	5.4		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	38.3	11.3	5.3	11.2	5.4		
LOS	D	B	A	B	A		
Approach Delay (s/veh)	26.9		5.3		7.0		
Approach LOS	C		A		A		
Queue Length 50th (m)	18.7	0.0	15.2	10.6	12.0		
Queue Length 95th (m)	32.8	11.7	28.2	30.1	21.4		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	402	344	1920	402	2160		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.33	0.28	0.36	0.46	0.22		

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.52
Intersection Signal Delay (s/veh): 9.1 — Intersection LOS: A
Intersection Capacity Utilization 63.3% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition



6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	74	19	697	520	
Future Volume (vph)	74	19	697	520	
Lane Group Flow (vph)	90	0	795	664	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.1		60.2	60.2	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.36		0.40	0.34	
Control Delay (s/veh)	36.7		5.3	6.5	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	36.7		5.3	6.5	
LOS	D		A	A	
Approach Delay (s/veh)	36.7		5.3	6.5	
Approach LOS	D		A	A	
Queue Length 50th (m)	13.3		20.2	21.0	
Queue Length 95th (m)	27.1		24.0	29.9	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	289		1980	1976	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.31		0.40	0.34	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.40
Intersection Signal Delay (s/veh): 7.7 — Intersection LOS: A
Intersection Capacity Utilization 55.4% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	58	53	18	60	20	477	109	551		
Future Volume (vph)	58	53	18	60	20	477	109	551		
Lane Group Flow (vph)	0	153	0	273	0	572	0	809		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	60.0	5.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	43.0	5.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%	47.8%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	2.9	3.0	0.0	0.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		21.7		21.7		56.7		56.7		
Actuated g/C Ratio		0.24		0.24		0.63		0.63		
v/c Ratio		0.69		0.76		0.32		0.58		
Control Delay (s/veh)		47.4		32.9		8.8		8.6		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		47.4		32.9		8.8		8.6		
LOS		D		C		A		A		
Approach Delay (s/veh)		47.4		32.9		8.8		8.6		
Approach LOS		D		C		A		A		
Queue Length 50th (m)		23.1		25.3		23.6		43.0		
Queue Length 95th (m)		#45.4		#59.8		33.1		61.5		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		231		370		1778		1383		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.66		0.74		0.32		0.58		

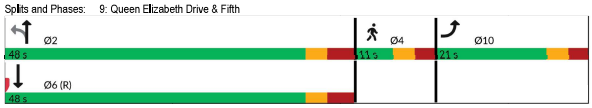
Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay (s/veh): 15.6		Intersection LOS: B	
Intersection Capacity Utilization 82.1%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	52	54	224	534	
Future Volume (vph)	52	54	224	534	
Lane Group Flow (vph)	100	0	309	692	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	11.5		56.0	56.0	
Actuated g/C Ratio	0.14		0.70	0.70	
v/c Ratio	0.45		0.33	0.60	
Control Delay (s/veh)	37.8		6.1	9.3	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	37.8		6.1	9.3	
LOS	D		A	A	
Approach Delay (s/veh)	37.8		6.1	9.3	
Approach LOS	D		A	A	
Queue Length 50th (m)	14.4		14.4	42.7	
Queue Length 95th (m)	27.0		30.5	85.2	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	295		949	1158	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.34		0.33	0.60	

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay (s/veh): 11.0		Intersection LOS: B	
Intersection Capacity Utilization 75.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 9: Queen Elizabeth Drive & Fifth



Intersection						
Int Delay, s/veh	13.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	275	147	658	486	56
Future Vol, veh/h	5	275	147	658	486	56
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	6	306	163	731	540	62

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1441	749	780	0	-	0
Stage 1	749	-	-	-	-	-
Stage 2	692	-	-	-	-	-
Critical Hdwy	6.645	6.245	4.145	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	2.2285	-	-	-
Pot Cap-1 Maneuver	133	409	829	-	-	-
Stage 1	464	-	-	-	-	-
Stage 2	457	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	61	332	673	-	-	-
Mov Cap-2 Maneuver	61	-	-	-	-	-
Stage 1	262	-	-	-	-	-
Stage 2	371	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	67.47	4.27	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	537	-	332	-	-
HCM Lane V/C Ratio	0.243	-	0.921	-	-
HCM Ctrl Dly (s/v)	12.1	2.5	67.5	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.9	-	9.2	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	38	0	789	769	0
Future Vol, veh/h	4	38	0	789	769	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	4	42	0	877	854	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1293	854	-	0	-	0
Stage 1	854	-	-	-	-	-
Stage 2	438	-	-	-	-	-
Critical Hdwy	6.645	6.245	-	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	-	-	-	-
Pot Cap-1 Maneuver	166	355	0	-	-	0
Stage 1	414	-	0	-	-	0
Stage 2	616	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	166	355	-	-	-	-
Mov Cap-2 Maneuver	166	-	-	-	-	-
Stage 1	414	-	-	-	-	-
Stage 2	616	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	16.49	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	355	-
HCM Lane V/C Ratio	-	0.119	-
HCM Ctrl Dly (s/v)	-	16.5	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	0.4	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	58	52	110	223	334	245
Future Vol, veh/h	58	52	110	223	334	245
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	64	58	122	248	371	272

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	999	507	643	0	-	0
Stage 1	507	-	-	-	-	-
Stage 2	492	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	272	569	951	-	-	-
Stage 1	609	-	-	-	-	-
Stage 2	619	-	-	-	-	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	232	569	951	-	-	-
Mov Cap-2 Maneuver	232	-	-	-	-	-
Stage 1	518	-	-	-	-	-
Stage 2	619	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	22.88	3.09	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	595	-	322	-	-
HCM Lane V/C Ratio	0.128	-	0.38	-	-
HCM Ctrl Dly (s/v)	9.3	0	22.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.4	-	1.7	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	53	520	19	2	582
Future Vol, veh/h	0	53	520	19	2	582
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	2	2
Mvmt Flow	0	59	578	21	2	647

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	399	0	0	699	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	2.22	-
Pot Cap-1 Maneuver	0	606	-	-	894	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	542	-	-	799	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12.45	0	0.03
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	542	799	-
HCM Lane V/C Ratio	-	-	0.109	0.003	-
HCM Ctrl Dly (s/v)	-	-	12.5	9.5	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	222	129	5	117	87	5
Future Vol, veh/h	222	129	5	117	87	5
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	247	143	6	130	97	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	490	0	659	518
Stage 1	-	-	-	-	418	-
Stage 2	-	-	-	-	241	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1073	-	428	557
Stage 1	-	-	-	-	664	-
Stage 2	-	-	-	-	799	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	960	-	340	446
Mov Cap-2 Maneuver	-	-	-	-	340	-
Stage 1	-	-	-	-	594	-
Stage 2	-	-	-	-	710	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.36	19.79
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	345	-	-	74	-
HCM Lane V/C Ratio	0.297	-	-	0.006	-
HCM Ctrl Dly (s/v)	19.8	-	-	8.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.2	-	-	0	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	27	156	199	83	5
Future Vol, veh/h	5	27	156	199	83	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	30	173	221	92	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	394	0	-	0	325	284
Stage 1	-	-	-	-	284	-
Stage 2	-	-	-	-	41	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1164	-	-	-	669	755
Stage 1	-	-	-	-	764	-
Stage 2	-	-	-	-	981	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1164	-	-	-	666	755
Mov Cap-2 Maneuver	-	-	-	-	666	-
Stage 1	-	-	-	-	761	-
Stage 2	-	-	-	-	981	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.27	0	11.29
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	281	-	-	-	670
HCM Lane V/C Ratio	0.005	-	-	-	0.146
HCM Ctrl Dly (s/v)	8.1	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.5

2033 BACKGROUND – MINOR EVENT EGRESS

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	195	0	0	0	0	280
Future Vol, veh/h	195	0	0	0	0	280
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	217	0	0	0	0	311
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	9.7	0	8.9
HCM LOS	A	-	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	0%
Vol Thru, %	0%	100%	0%
Vol Right, %	0%	0%	100%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	195	0	280
LT Vol	195	0	0
Through Vol	0	0	0
RT Vol	0	0	280
Lane Flow Rate	217	0	311
Geometry Grp	1	1	1
Degree of Util (X)	0.289	0	0.336
Departure Headway (Hd)	4.796	4.841	3.885
Convergence, Y/N	Yes	Yes	Yes
Cap	754	0	927
Service Time	2.796	2.879	1.899
HCM Lane V/C Ratio	0.288	0	0.335
HCM Control Delay, s/veh	9.7	7.9	8.9
HCM Lane LOS	A	N	A
HCM 95th-tile Q	1.2	0	1.5

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	15	15	39	39	98	98
Future Vol, veh/h	15	15	39	39	98	98
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	17	43	43	109	109
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.4	8.1	8.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	50%
Vol Thru, %	0%	50%	50%
Vol Right, %	50%	50%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	196	30	78
LT Vol	98	0	39
Through Vol	0	15	39
RT Vol	98	15	0
Lane Flow Rate	218	33	87
Geometry Grp	1	1	1
Degree of Util (X)	0.238	0.039	0.107
Departure Headway (Hd)	3.941	4.202	4.445
Convergence, Y/N	Yes	Yes	Yes
Cap	899	857	794
Service Time	2.016	2.202	2.54
HCM Lane V/C Ratio	0.242	0.039	0.11
HCM Control Delay, s/veh	8.3	7.4	8.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.9	0.1	0.4

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	71	0	0	78	0	0
Future Vol, veh/h	71	0	0	78	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	79	0	0	87	0	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.4	7.4	0
HCM LOS	A	A	-

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	0%	0%	0%
Vol Thru, %	100%	100%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	0	71	78
LT Vol	0	0	0
Through Vol	0	71	78
RT Vol	0	0	0
Lane Flow Rate	0	79	87
Geometry Grp	1	1	1
Degree of Util (X)	0	0.088	0.096
Departure Headway (Hd)	4.218	3.998	3.992
Convergence, Y/N	Yes	Yes	Yes
Cap	0	898	900
Service Time	2.288	2.014	2.007
HCM Lane V/C Ratio	0	0.088	0.097
HCM Control Delay, s/veh	7.3	7.4	7.4
HCM Lane LOS	N	A	A
HCM 95th-tile Q	0	0.3	0.3

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	45	0	0	0	68	10	11	49	0	0	99
Future Vol, veh/h	11	45	0	0	0	68	10	11	49	0	0	99
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	50	0	0	0	76	11	12	54	0	0	110
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.8	7.1	7.3	7.2
HCM LOS	A	A	A	A

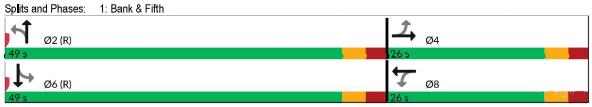
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	20%	0%	0%
Vol Thru, %	16%	80%	0%	0%
Vol Right, %	70%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	56	68	99
LT Vol	10	11	0	0
Through Vol	11	45	0	0
RT Vol	49	0	68	99
Lane Flow Rate	78	62	76	110
Geometry Grp	1	1	1	1
Degree of Util (X)	0.084	0.075	0.078	0.111
Departure Headway (Hd)	3.865	4.357	3.705	3.63
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	915	815	954	974
Service Time	1.938	2.422	1.777	1.704
HCM Lane V/C Ratio	0.085	0.076	0.08	0.113
HCM Control Delay, s/veh	7.3	7.8	7.1	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.2	0.3	0.4

1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	43	10	50	25	17	463	21	356
Future Volume (vph)	43	10	50	25	17	463	21	356
Lane Group Flow (vph)	0	88	56	64	0	546	0	443
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		9.5	9.5	9.5		57.8		57.8
Actuated g/C Ratio		0.13	0.13	0.13		0.77		0.77
v/c Ratio		0.52	0.36	0.31		0.24		0.21
Control Delay (s/veh)		32.1	35.0	19.3		3.6		3.7
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		32.1	35.0	19.3		3.6		3.7
LOS		C	C	B		A		A
Approach Delay (s/veh)		32.1		26.6		3.6		3.7
Approach LOS		C		C		A		A
Queue Length 50th (m)		7.9	7.4	3.6		9.6		8.0
Queue Length 95th (m)		19.6	16.3	12.9		19.0		16.6
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		331	335	403		2236		2157
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.27	0.17	0.16		0.24		0.21

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.52
Intersection Signal Delay (s/veh): 8.0 Intersection LOS: A
Intersection Capacity Utilization 53.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth

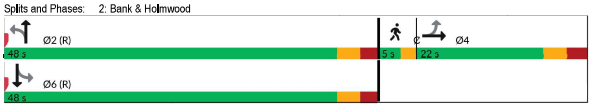


2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	7	55	450	22	337	
Future Volume (vph)	7	55	450	22	337	
Lane Group Flow (vph)	88	0	588	0	439	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	10.2		57.3		57.3	
Actuated g/C Ratio	0.14		0.76		0.76	
v/c Ratio	0.48		0.29		0.21	
Control Delay (s/veh)	37.9		4.3		2.8	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	37.9		4.3		2.8	
LOS	D		A		A	
Approach Delay (s/veh)	37.9		4.3		2.8	
Approach LOS	D		A		A	
Queue Length 50th (m)	11.7		12.3		8.1	
Queue Length 95th (m)	23.3		23.4		11.7	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	295		2006		2101	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.30		0.29		0.21	

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay (s/veh): 6.4 Intersection LOS: A
Intersection Capacity Utilization 57.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood

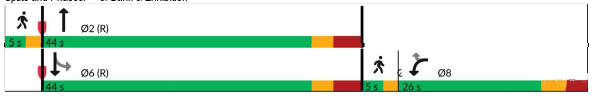


3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	187	213	195	111	267		
Future Volume (vph)	187	213	195	111	267		
Lane Group Flow (vph)	208	237	306	123	297		
Turn Type	Prot	Perm	NA	Perm	NA		
Protected Phases	8		2		6	1	7
Permitted Phases		8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (%)	32.5%	32.5%	55.0%	55.0%	55.0%	6%	6%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	15.4	15.4	51.4	51.4	51.4		
Actuated g/C Ratio	0.19	0.19	0.64	0.64	0.64		
v/c Ratio	0.66	0.59	0.17	0.25	0.15		
Control Delay (s/veh)	39.7	10.2	4.8	8.9	6.5		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	39.7	10.2	4.8	8.9	6.5		
LOS	D	B	A	A	A		
Approach Delay (s/veh)	24.0		4.8		7.2		
Approach LOS	C		A		A		
Queue Length 50th (m)	29.5	0.0	5.9	7.0	8.2		
Queue Length 95th (m)	46.3	17.1	12.9	18.6	15.9		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	407	453	1817	489	2038		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.51	0.52	0.17	0.25	0.15		

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay (s/veh): 13.0 Intersection LOS: B
Intersection Capacity Utilization 57.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition



6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	4	1	156	192	
Future Volume (vph)	4	1	156	192	
Lane Group Flow (vph)	7	0	174	220	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.0		60.3	60.3	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.03		0.09	0.10	
Control Delay (s/veh)	27.2		4.6	5.2	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	27.2		4.6	5.2	
LOS	C		A	A	
Approach Delay (s/veh)	27.2		4.6	5.2	
Approach LOS	C		A	A	
Queue Length 50th (m)	0.6		4.2	6.0	
Queue Length 95th (m)	4.4		6.6	9.7	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	253		2043	2104	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.03		0.09	0.10	

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.10
Intersection Signal Delay (s/veh): 5.3 Intersection LOS: A
Intersection Capacity Utilization 45.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	30	7	5	13	13	242	35	423		
Future Volume (vph)	30	7	5	13	13	242	35	423		
Lane Group Flow (vph)	0	63	0	58	0	289	0	558		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	60.0	5.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	43.0	5.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%	47.8%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		11.1		10.9		70.9		70.9		
Actuated g/C Ratio		0.12		0.12		0.79		0.79		
v/c Ratio		0.51		0.34		0.13		0.26		
Control Delay (s/veh)		50.3		22.0		3.5		2.6		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		50.3		22.0		3.5		2.6		
LOS		D		C		A		A		
Approach Delay (s/veh)		50.3		22.0		3.5		2.6		
Approach LOS		D		C		A		A		
Queue Length 50th (m)		10.4		3.2		5.8		7.0		
Queue Length 95th (m)		21.5		13.1		11.8		12.7		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		215		275		2274		2109		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.29		0.21		0.13		0.26		

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.51
Intersection Signal Delay (s/veh): 7.2 Intersection LOS: A
Intersection Capacity Utilization 60.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	65	33	265	157	
Future Volume (vph)	65	33	265	157	
Lane Group Flow (vph)	105	0	331	213	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	11.6		55.9	55.9	
Actuated g/C Ratio	0.15		0.70	0.70	
v/c Ratio	0.46		0.30	0.19	
Control Delay (s/veh)	37.8		5.7	5.0	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	37.8		5.7	5.0	
LOS	D		A	A	
Approach Delay (s/veh)	37.8		5.7	5.0	
Approach LOS	D		A	A	
Queue Length 50th (m)	15.1		15.2	8.9	
Queue Length 95th (m)	28.0		31.1	19.2	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	298		1120	1148	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.35		0.30	0.19	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.46
Intersection Signal Delay (s/veh): 10.7 Intersection LOS: B
Intersection Capacity Utilization 52.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Queen Elizabeth Drive & Fifth

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	114	49	284	400	69
Future Vol, veh/h	2	114	49	284	400	69
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2	127	54	316	444	77

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	927	661	699	0	-	0
Stage 1	661	-	-	-	-	-
Stage 2	267	-	-	-	-	-
Critical Hdwy	6.645	6.245	4.145	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	2.2285	-	-	-
Pot Cap-1 Maneuver	280	459	890	-	-	-
Stage 1	510	-	-	-	-	-
Stage 2	752	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	169	373	722	-	-	-
Mov Cap-2 Maneuver	169	-	-	-	-	-
Stage 1	380	-	-	-	-	-
Stage 2	610	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	19.54	2.07	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	530	-	373	-	-
HCM Lane V/C Ratio	0.075	-	0.34	-	-
HCM Ctrl Dly (s/v)	10.4	0.6	19.5	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.5	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	12	0	365	328	0
Future Vol, veh/h	2	12	0	365	328	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2	13	0	406	364	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	567	364	-	0	-	0
Stage 1	364	-	-	-	-	-
Stage 2	203	-	-	-	-	-
Critical Hdwy	6.645	6.245	-	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	-	-	-	-
Pot Cap-1 Maneuver	467	677	0	-	-	0
Stage 1	699	-	0	-	-	0
Stage 2	809	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	467	677	-	-	-	-
Mov Cap-2 Maneuver	467	-	-	-	-	-
Stage 1	699	-	-	-	-	-
Stage 2	809	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.42	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	677	-
HCM Lane V/C Ratio	-	0.02	-
HCM Ctrl Dly (s/v)	-	10.4	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Int Delay, s/veh	10.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	251	166	17	46	128	61
Future Vol, veh/h	251	166	17	46	128	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	279	184	19	51	142	68

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	265	176	210	0	-	0
Stage 1	176	-	-	-	-	-
Stage 2	89	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	728	872	1373	-	-	-
Stage 1	859	-	-	-	-	-
Stage 2	940	-	-	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	718	872	1373	-	-	-
Mov Cap-2 Maneuver	718	-	-	-	-	-
Stage 1	847	-	-	-	-	-
Stage 2	940	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	16.39	2.07	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	486	-	772	-	-
HCM Lane V/C Ratio	0.014	-	0.6	-	-
HCM Ctrl Dly (s/v)	7.7	0	16.4	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	4.1	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	144	419	29	0	370
Future Vol, veh/h	5	144	419	29	0	370
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	2	2
Mvmt Flow	6	160	466	32	0	411

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	787	349	0	0	-	-
Stage 1	582	-	-	-	-	-
Stage 2	206	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	333	653	-	-	0	-
Stage 1	528	-	-	-	0	-
Stage 2	815	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	298	584	-	-	-	-
Mov Cap-2 Maneuver	298	-	-	-	-	-
Stage 1	472	-	-	-	-	-
Stage 2	815	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	13.47	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	584	-
HCM Lane V/C Ratio	-	-	0.274	-
HCM Ctrl Dly (s/v)	-	-	13.5	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	1.1	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	190	1	0	280	120	5
Future Vol, veh/h	190	1	0	280	120	5
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	211	1	0	311	133	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	312	0	723	412
Stage 1	-	-	-	-	312	-
Stage 2	-	-	-	-	411	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1248	-	393	640
Stage 1	-	-	-	-	742	-
Stage 2	-	-	-	-	669	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1116	-	314	512
Mov Cap-2 Maneuver	-	-	-	-	314	-
Stage 1	-	-	-	-	664	-
Stage 2	-	-	-	-	598	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	24.68
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	319	-	-	1116	-
HCM Lane V/C Ratio	0.435	-	-	-	-
HCM Ctrl Dly (s/v)	24.7	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	2.1	-	-	0	-

Intersection	
Int Delay, s/veh	9.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	70	73	5	347	5
Future Vol, veh/h	1	70	73	5	347	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	78	81	6	386	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	87	0	-	0	164	84
Stage 1	-	-	-	-	84	-
Stage 2	-	-	-	-	80	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1509	-	-	-	827	975
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	943	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1509	-	-	-	826	975
Mov Cap-2 Maneuver	-	-	-	-	826	-
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	943	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.1	0	13.18
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	25	-	-	-	828
HCM Lane V/C Ratio	0.001	-	-	-	0.472
HCM Ctrl Dly (s/v)	7.4	0	-	-	13.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	2.6

2033 BACKGROUND – MAJOR EVENT INGRESS

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	66	56	0	0	0	192	57	61	93	0	0	127
Future Vol, veh/h	66	56	0	0	0	192	57	61	93	0	0	127
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	62	0	0	0	213	63	68	103	0	0	141
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

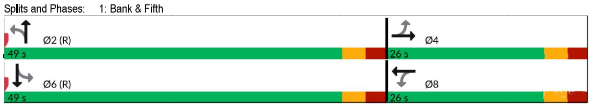
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	9.5	9	9.8	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	54%	0%	0%
Vol Thru, %	29%	46%	0%	0%
Vol Right, %	44%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	211	122	192	127
LT Vol	57	66	0	0
Through Vol	61	56	0	0
RT Vol	93	0	192	127
Lane Flow Rate	234	136	213	141
Geometry Grp	1	1	1	1
Degree of Util (X)	0.306	0.194	0.259	0.174
Departure Headway (Hd)	4.696	5.155	4.377	4.437
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	760	690	813	800
Service Time	2.763	3.231	2.444	2.511
HCM Lane V/C Ratio	0.308	0.197	0.262	0.176
HCM Control Delay, s/veh	9.8	9.5	9	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.3	0.7	1	0.6

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	63	56	75	64	24	476	33	627
Future Volume (vph)	63	56	75	64	24	476	33	627
Lane Group Flow (vph)	0	174	83	134	0	598	0	802
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		14.4	14.4	14.4		49.6		49.6
Actuated g/C Ratio		0.19	0.19	0.19		0.66		0.66
v/c Ratio		0.70	0.45	0.42		0.33		0.44
Control Delay (s/veh)		38.7	32.9	18.4		7.3		7.7
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		38.7	32.9	18.4		7.3		7.7
LOS		D	C	B		A		A
Approach Delay (s/veh)		38.7		23.9		7.3		7.7
Approach LOS		D		C		A		A
Queue Length 50th (m)		20.2	10.4	9.1		14.4		24.0
Queue Length 95th (m)		36.2	20.9	21.3		34.9		44.5
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		345	263	432		1802		1810
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.50	0.32	0.31		0.33		0.44

Intersection Summary			
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay (s/veh): 12.5		Intersection LOS: B	
Intersection Capacity Utilization 89.0%		ICU Level of Service E	
Analysis Period (min) 15			

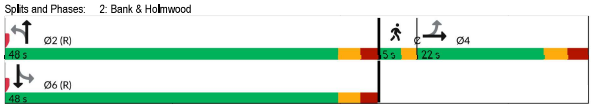
Splits and Phases: 1: Bank & Fifth



Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	39	71	504	53	583	
Future Volume (vph)	39	71	504	53	583	
Lane Group Flow (vph)	157	0	770	0	765	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	13.5		50.7		50.7	
Actuated g/C Ratio	0.18		0.68		0.68	
v/c Ratio	0.62		0.51		0.44	
Control Delay (s/veh)	38.5		7.7		4.3	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.5		7.7		4.3	
LOS	D		A		A	
Approach Delay (s/veh)	38.5		7.7		4.3	
Approach LOS	D		A		A	
Queue Length 50th (m)	20.7		21.9		13.8	
Queue Length 95th (m)	35.3		43.1		17.9	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	316		1520		1727	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.50		0.51		0.44	

Intersection Summary			
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay (s/veh): 9.0		Intersection LOS: A	
Intersection Capacity Utilization 74.2%		ICU Level of Service D	
Analysis Period (min) 15			

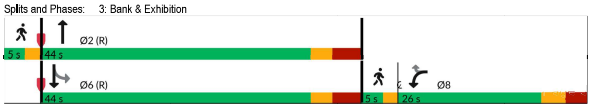
Splits and Phases: 2: Bank & Holmwood



Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	47	37	648	44	595		
Future Volume (vph)	47	37	648	44	595		
Lane Group Flow (vph)	52	41	788	49	661		
Turn Type	Prot	Perm	NA	Perm	NA		
Protected Phases	8		2		6	1	7
Permitted Phases		8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (%)	32.5%	32.5%	55.0%	55.0%	55.0%	6%	6%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	10.2	10.2	61.3	61.3	61.3		
Actuated g/C Ratio	0.13	0.13	0.77	0.77	0.77		
v/c Ratio	0.25	0.23	0.33	0.12	0.27		
Control Delay (s/veh)	34.8	14.2	4.4	4.7	4.2		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	34.8	14.2	4.4	4.7	4.2		
LOS	C	B	A	A	A		
Approach Delay (s/veh)	25.7		4.4		4.2		
Approach LOS	C		A		A		
Queue Length 50th (m)	7.3	0.0	19.7	1.9	16.0		
Queue Length 95th (m)	17.1	8.5	28.7	5.5	23.4		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	402	303	2359	419	2429		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.13	0.14	0.33	0.12	0.27		

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.33			
Intersection Signal Delay (s/veh): 5.6		Intersection LOS: A	
Intersection Capacity Utilization 62.5%		ICU Level of Service B	
Analysis Period (min) 15			

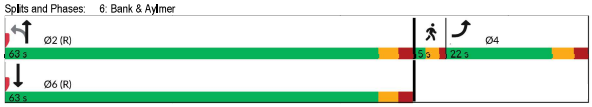
Splits and Phases: 3: Bank & Exhibition



Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	93	14	744	784	
Future Volume (vph)	93	14	744	784	
Lane Group Flow (vph)	131	0	843	929	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.6		59.7	59.7	
Actuated g/C Ratio	0.16		0.66	0.66	
v/c Ratio	0.52		0.43	0.45	
Control Delay (s/veh)	38.8		5.6	8.2	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	38.8		5.6	8.2	
LOS	D		A	A	
Approach Delay (s/veh)	38.8		5.6	8.2	
Approach LOS	D		A	A	
Queue Length 50th (m)	19.0		21.3	34.4	
Queue Length 95th (m)	35.4		25.8	50.5	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	283		1972	2043	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.46		0.43	0.45	

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.52
Intersection Signal Delay (s/veh): 9.1 Intersection LOS: A
Intersection Capacity Utilization 52.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	54	80	14	86	27	528	143	636		
Future Volume (vph)	54	80	14	86	27	528	143	636		
Lane Group Flow (vph)	0	191	0	291	0	649	0	962		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	60.0	5.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	43.0	5.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%	47.8%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		24.4		24.4		54.0		54.0		
Actuated g/C Ratio		0.27		0.27		0.60		0.60		
v/c Ratio		0.66		0.75		0.40		0.79		
Control Delay (s/veh)		42.0		35.6		10.3		14.3		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		42.0		35.6		10.3		14.3		
LOS		D		D		B		B		
Approach Delay (s/veh)		42.0		35.6		10.3		14.3		
Approach LOS		D		D		B		B		
Queue Length 50th (m)		29.3		33.5		28.1		64.5		
Queue Length 95th (m)		#57.3		#71.9		39.1		94.7		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		288		386		1622		1214		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.66		0.75		0.40		0.79		

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay (s/veh): 18.5 Intersection LOS: B
Intersection Capacity Utilization 91.0% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	93	73	264	650	
Future Volume (vph)	93	73	264	650	
Lane Group Flow (vph)	205	0	374	866	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	16.0		51.5	51.5	
Actuated g/C Ratio	0.20		0.64	0.64	
v/c Ratio	0.67		0.61	0.82	
Control Delay (s/veh)	40.0		14.9	20.6	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	40.0		14.9	20.6	
LOS	D		B	C	
Approach Delay (s/veh)	40.0		14.9	20.6	
Approach LOS	D		B	C	
Queue Length 50th (m)	28.9		29.4	87.7	
Queue Length 95th (m)	46.2		69.2	#191.7	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	332		618	1061	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.62		0.61	0.82	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay (s/veh): 21.8 Intersection LOS: C
Intersection Capacity Utilization 90.8% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Queen Elizabeth Drive & Fifth

Intersection	
Int Delay, s/veh	19.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	281	110	731	545	109
Future Vol, veh/h	5	281	110	731	545	109
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	6	312	122	812	606	121

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1495	844	905	0	-	0
Stage 1	844	-	-	-	-	-
Stage 2	651	-	-	-	-	-
Critical Hdwy	6.645	6.245	4.145	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	2.2285	-	-	-
Pot Cap-1 Maneuver	123	360	744	-	-	-
Stage 1	418	-	-	-	-	-
Stage 2	480	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	60	~ 292	604	-	-	-
Mov Cap-2 Maneuver	60	-	-	-	-	-
Stage 1	251	-	-	-	-	-
Stage 2	389	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	110.98	3.8	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	468	-	292	-	-
HCM Lane V/C Ratio	0.202	-	1.068	-	-
HCM Ctrl Dly (s/v)	12.5	2.5	111	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.8	-	12.1	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	76	0	818	797	0
Future Vol, veh/h	1	76	0	818	797	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1	84	0	909	886	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1340	886	-	0	-	0
Stage 1	886	-	-	-	-	-
Stage 2	454	-	-	-	-	-
Critical Hdwy	6.645	6.245	-	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	-	-	-	-
Pot Cap-1 Maneuver	155	341	0	-	-	0
Stage 1	400	-	0	-	-	0
Stage 2	605	-	0	-	-	0
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	155	341	-	-	-	-
Mov Cap-2 Maneuver	155	-	-	-	-	-
Stage 1	400	-	-	-	-	-
Stage 2	605	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	19	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	341	-
HCM Lane V/C Ratio	-	0.248	-
HCM Ctrl Dly (s/v)	-	19	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	1	-

Intersection	
Int Delay, s/veh	9.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	94	97	105	245	466	256
Future Vol, veh/h	94	97	105	245	466	256
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	104	108	117	272	518	284

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1166	660	802	0	-	0
Stage 1	660	-	-	-	-	-
Stage 2	506	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	216	467	830	-	-	-
Stage 1	518	-	-	-	-	-
Stage 2	610	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	181	467	830	-	-	-
Mov Cap-2 Maneuver	181	-	-	-	-	-
Stage 1	432	-	-	-	-	-
Stage 2	610	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	58.51	3.01	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	540	-	262	-	-
HCM Lane V/C Ratio	0.141	-	0.809	-	-
HCM Ctrl Dly (s/v)	10	0	58.5	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.5	-	6.3	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	685	0	0	640
Future Vol, veh/h	0	0	685	0	0	640
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	2	2
Mvmt Flow	0	0	761	0	0	711

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	481	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6,9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3,3	-	-	-	-
Pot Cap-1 Maneuver	0	537	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	480	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-

2033 BACKGROUND – MAJOR EVENT EGRESS

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	51	0	0	0	109	114	102	141	0	0	53
Future Vol, veh/h	24	51	0	0	0	109	114	102	141	0	0	53
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	57	0	0	0	121	127	113	157	0	0	59
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

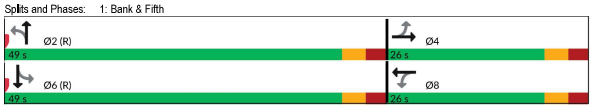
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.9	8.3	11.2	7.6
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	32%	32%	0%	0%
Vol Thru, %	29%	68%	0%	0%
Vol Right, %	39%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	357	75	109	53
LT Vol	114	24	0	0
Through Vol	102	51	0	0
RT Vol	141	0	109	53
Lane Flow Rate	397	83	121	59
Geometry Grp	1	1	1	1
Degree of Util (X)	0.475	0.119	0.15	0.07
Departure Headway (Hd)	4.31	5.159	4.458	4.255
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	833	693	801	837
Service Time	2.343	3.21	2.504	2.303
HCM Lane V/C Ratio	0.477	0.12	0.151	0.07
HCM Control Delay, s/veh	11.2	8.9	8.3	7.6
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	2.6	0.4	0.5	0.2

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	78	34	41	72	22	325	20	357
Future Volume (vph)	78	34	41	72	22	325	20	357
Lane Group Flow (vph)	0	155	46	207	0	413	0	463
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		14.9	14.9	14.9		49.1		49.1
Actuated g/C Ratio		0.20	0.20	0.20		0.65		0.65
v/c Ratio		0.81	0.22	0.58		0.23		0.25
Control Delay (s/veh)		54.3	25.5	19.7		5.2		6.3
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		54.3	25.5	19.7		5.2		6.3
LOS		D	C	B		A		A
Approach Delay (s/veh)		54.3		20.8		5.2		6.3
Approach LOS		D		C		A		A
Queue Length 50th (m)		18.7	5.4	12.4		9.0		11.8
Queue Length 95th (m)		#39.5	12.7	29.4		16.9		22.3
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		258	285	446		1809		1817
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.60	0.16	0.46		0.23		0.25

Intersection Summary			
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay (s/veh): 14.6		Intersection LOS: B	
Intersection Capacity Utilization 73.3%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

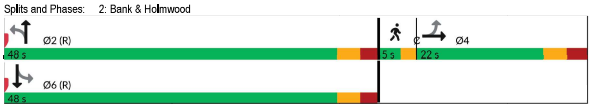
Splits and Phases: 1: Bank & Fifth



Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	22	52	273	30	285	
Future Volume (vph)	22	52	273	30	285	
Lane Group Flow (vph)	151	0	424	0	421	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag				Lead	
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	13.5		50.7		50.7	
Actuated g/C Ratio	0.18		0.68		0.68	
v/c Ratio	0.62		0.26		0.24	
Control Delay (s/veh)	38.9		5.3		3.2	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.9		5.3		3.2	
LOS	D		A		A	
Approach Delay (s/veh)	38.9		5.3		3.2	
Approach LOS	D		A		A	
Queue Length 50th (m)	19.9		9.2		6.3	
Queue Length 95th (m)	34.2		19.0		9.2	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	306		1625		1768	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.49		0.26		0.24	

Intersection Summary			
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay (s/veh): 8.5		Intersection LOS: A	
Intersection Capacity Utilization 58.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Bank & Holmwood



Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	1	4	367	1	351		
Future Volume (vph)	1	4	367	1	351		
Lane Group Flow (vph)	1	4	408	1	390		
Turn Type	Prot	Perm	NA	Perm	NA		
Protected Phases	8		2		6	1	7
Permitted Phases		8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (%)	32.5%	32.5%	55.0%	55.0%	55.0%	6%	6%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	10.0	10.0	75.4	75.4	75.4		
Actuated g/C Ratio	0.13	0.13	0.94	0.94	0.94		
v/c Ratio	0.00	0.03	0.14	0.00	0.13		
Control Delay (s/veh)	31.0	21.0	1.3	2.0	1.3		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	31.0	21.0	1.3	2.0	1.3		
LOS	C	C	A	A	A		
Approach Delay (s/veh)	23.0		1.3		1.3		
Approach LOS	C		A		A		
Queue Length 50th (m)	0.1	0.0	0.0	0.0	0.0		
Queue Length 95th (m)	1.5	2.6	13.1	0.4	12.6		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	402	275	3018	673	2989		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.00	0.01	0.14	0.00	0.13		

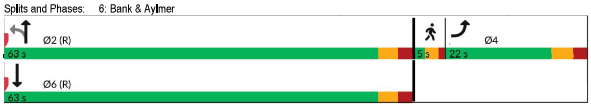
Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.14
Intersection Signal Delay (s/veh): 1.4 Intersection LOS: A
Intersection Capacity Utilization 43.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	19	17	338	304	
Future Volume (vph)	19	17	338	304	
Lane Group Flow (vph)	39	0	395	364	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.0		60.3	60.3	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.17		0.20	0.18	
Control Delay (s/veh)	23.5		4.9	5.5	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	23.5		4.9	5.5	
LOS	C		A	A	
Approach Delay (s/veh)	23.5		4.9	5.5	
Approach LOS	C		A	A	
Queue Length 50th (m)	3.2		9.9	10.2	
Queue Length 95th (m)	11.9		13.8	15.3	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	262		1968	2052	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.15		0.20	0.18	

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.20
Intersection Signal Delay (s/veh): 6.1 Intersection LOS: A
Intersection Capacity Utilization 45.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	32	29	17	36	20	275	15	312		
Future Volume (vph)	32	29	17	36	20	275	15	312		
Lane Group Flow (vph)	0	94	0	101	0	336	0	398		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	60.0	5.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	43.0	5.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%	47.8%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		12.6		12.4		69.4		69.4		
Actuated g/C Ratio		0.14		0.14		0.77		0.77		
v/c Ratio		0.60		0.51		0.15		0.19		
Control Delay (s/veh)		51.2		31.5		4.2		1.4		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		51.2		31.5		4.2		1.4		
LOS		D		C		A		A		
Approach Delay (s/veh)		51.2		31.5		4.2		1.4		
Approach LOS		D		C		A		A		
Queue Length 50th (m)		15.5		10.4		7.6		2.0		
Queue Length 95th (m)		28.9		23.7		15.2		3.6		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		240		293		2180		2140		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.39		0.34		0.15		0.19		

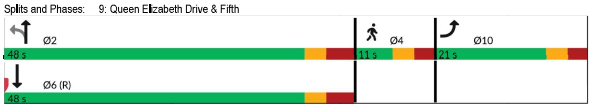
Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay (s/veh): 10.7 Intersection LOS: B
Intersection Capacity Utilization 45.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	141	44	301	292	
Future Volume (vph)	141	44	301	292	
Lane Group Flow (vph)	227	0	383	403	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	17.1		50.4	50.4	
Actuated g/C Ratio	0.21		0.63	0.63	
v/c Ratio	0.68		0.40	0.39	
Control Delay (s/veh)	39.1		9.7	9.5	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	39.1		9.7	9.5	
LOS	D		A	A	
Approach Delay (s/veh)	39.1		9.7	9.5	
Approach LOS	D		A	A	
Queue Length 50th (m)	31.8		25.7	26.8	
Queue Length 95th (m)	49.9		50.7	52.4	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	351		968	1035	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.65		0.40	0.39	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay (s/veh): 16.2 Intersection LOS: B
Intersection Capacity Utilization 68.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 9: Queen Elizabeth Drive & Fifth



Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	5	0	359	296	70
Future Vol, veh/h	0	5	0	359	296	70
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	6	0	399	329	78

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	546	585	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.245	4.145	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3285	2.2285	-	-	-
Pot Cap-1 Maneuver	0	534	982	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	434	797	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	13.41	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	797	-	434	-	-
HCM Lane V/C Ratio	-	-	0.013	-	-
HCM Ctrl Dly (s/v)	0	-	13.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	34	0	342	306	0
Future Vol, veh/h	0	34	0	342	306	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	38	0	380	340	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	340	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.245	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3285	-	-	-	-
Pot Cap-1 Maneuver	0	699	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	699	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.45	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	699	-
HCM Lane V/C Ratio	-	0.054	-
HCM Ctrl Dly (s/v)	-	10.4	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.2	-

Intersection	
Int Delay, s/veh	20.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	238	210	50	115	227	127
Future Vol, veh/h	238	210	50	115	227	127
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	264	233	56	128	252	141

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	562	323	393	0	-	0
Stage 1	323	-	-	-	-	-
Stage 2	239	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	492	723	1176	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	806	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	467	723	1176	-	-	-
Mov Cap-2 Maneuver	467	-	-	-	-	-
Stage 1	701	-	-	-	-	-
Stage 2	806	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	43.05	2.49	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	545	-	560	-	-
HCM Lane V/C Ratio	0.047	-	0.889	-	-
HCM Ctrl Dly (s/v)	8.2	0	43	-	-
HCM Lane LOS	A	A	E	-	-
HCM 95th %tile Q(veh)	0.1	-	10.3	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	438	0	0	352
Future Vol, veh/h	0	0	438	0	0	352
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	2	2
Mvmt Flow	0	0	487	0	0	391

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	343	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	658	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	589	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-

2033 TOTAL – WEEKDAY AM

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	117	70	5	5	5
Future Vol, veh/h	13	117	70	5	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	130	78	6	6	6
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	7.8	7.5	7.3
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	0%	50%
Vol Thru, %	90%	93%	0%
Vol Right, %	0%	7%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	130	75	10
LT Vol	13	0	5
Through Vol	117	70	0
RT Vol	0	5	5
Lane Flow Rate	144	83	11
Geometry Grp	1	1	1
Degree of Util (X)	0.162	0.093	0.013
Departure Headway (Hd)	4.036	4.021	4.122
Convergence, Y/N	Yes	Yes	Yes
Cap	890	889	853
Service Time	2.058	2.055	2.221
HCM Lane V/C Ratio	0.162	0.093	0.013
HCM Control Delay, s/veh	7.8	7.5	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0.3	0

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	3	5	5	137	12	6
Future Vol, veh/h	3	5	5	137	12	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	6	6	152	13	7
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	6.8	7.8	7.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	67%	0%	4%
Vol Thru, %	0%	38%	96%
Vol Right, %	33%	63%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	18	8	142
LT Vol	12	0	5
Through Vol	0	3	137
RT Vol	6	5	0
Lane Flow Rate	20	9	158
Geometry Grp	1	1	1
Degree of Util (X)	0.023	0.009	0.175
Departure Headway (Hd)	4.156	3.712	3.983
Convergence, Y/N	Yes	Yes	Yes
Cap	852	960	904
Service Time	2.226	1.751	1.994
HCM Lane V/C Ratio	0.023	0.009	0.175
HCM Control Delay, s/veh	7.3	6.8	7.8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0	0.6

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	4	5	70	63	80	43
Future Vol, veh/h	4	5	70	63	80	43
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	6	78	70	89	48
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.1	8.3	8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	65%	0%	53%
Vol Thru, %	0%	44%	47%
Vol Right, %	35%	56%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	123	9	133
LT Vol	80	0	70
Through Vol	0	4	63
RT Vol	43	5	0
Lane Flow Rate	137	10	148
Geometry Grp	1	1	1
Degree of Util (X)	0.157	0.011	0.176
Departure Headway (Hd)	4.127	4.067	4.286
Convergence, Y/N	Yes	Yes	Yes
Cap	856	885	828
Service Time	2.218	2.067	2.359
HCM Lane V/C Ratio	0.16	0.011	0.179
HCM Control Delay, s/veh	8	7.1	8.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0	0.6

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	69	42	0	0	0	74	29	33	34	0	0	111
Future Vol, veh/h	69	42	0	0	0	74	29	33	34	0	0	111
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	77	47	0	0	0	82	32	37	38	0	0	123
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.5	7.4	8	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	30%	62%	0%	0%
Vol Thru, %	34%	38%	0%	0%
Vol Right, %	35%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	96	111	74	111
LT Vol	29	69	0	0
Through Vol	33	42	0	0
RT Vol	34	0	74	111
Lane Flow Rate	107	123	82	123
Geometry Grp	1	1	1	1
Degree of Util (X)	0.129	0.159	0.091	0.134
Departure Headway (Hd)	4.369	4.631	3.968	3.916
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	821	776	904	916
Service Time	2.389	2.65	1.987	1.934
HCM Lane V/C Ratio	0.13	0.159	0.091	0.134
HCM Control Delay, s/veh	8	8.5	7.4	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.6	0.3	0.5

1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	39	60	50	52	10	604	20	452
Future Volume (vph)	39	60	50	52	10	604	20	452
Lane Group Flow (vph)	0	143	56	102	0	716	0	564
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Act Effct Green (s)		20.5	20.5	20.5		43.5		43.5
Actuated g/C Ratio		0.27	0.27	0.27		0.58		0.58
v/c Ratio		0.38	0.20	0.24		0.43		0.35
Control Delay (s/veh)		22.5	23.2	14.9		6.6		8.8
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		22.5	23.2	14.9		6.6		8.8
LOS		C	C	B		A		A
Approach Delay (s/veh)		22.5		17.9		6.6		8.8
Approach LOS		C		B		A		A
Queue Length 50th (m)		13.9	6.1	6.2		13.3		19.3
Queue Length 95th (m)		28.9	14.8	17.3		17.1		28.4
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		375	285	419		1657		1590
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.38	0.20	0.24		0.43		0.35

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 33 (44%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Pretimed
Maximum v/c Ratio: 0.43
Intersection Signal Delay (s/veh): 10.0 — Intersection LOS: A
Intersection Capacity Utilization 55.6% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth

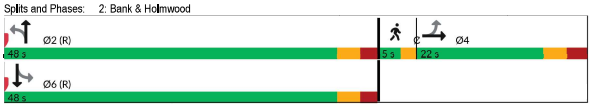
2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	22	17	590	14	403	
Future Volume (vph)	22	17	590	14	403	
Lane Group Flow (vph)	90	0	709	0	490	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	10.2		57.3		57.3	
Actuated g/C Ratio	0.14		0.76		0.76	
v/c Ratio	0.48		0.33		0.23	
Control Delay (s/veh)	37.7		4.5		3.2	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	37.7		4.5		3.2	
LOS	D		A		A	
Approach Delay (s/veh)	37.7		4.5		3.2	
Approach LOS	D		A		A	
Queue Length 50th (m)	12.0		15.5		8.0	
Queue Length 95th (m)	23.5		28.8		15.2	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	298		2132		2125	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.30		0.33		0.23	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 28 (37%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay (s/veh): 6.4 — Intersection LOS: A
Intersection Capacity Utilization 54.6% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø7
Lane Configurations						
Traffic Volume (vph)	90	51	530	77	358	
Future Volume (vph)	90	51	530	77	358	
Lane Group Flow (vph)	100	57	717	86	398	
Turn Type	Prot	Perm	NA	Perm	NA	
Protected Phases	8		2		6	7
Permitted Phases		8		6		
Detector Phase	8	8	2	6	6	
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	3.0
Minimum Split (s)	26.0	26.0	27.0	27.0	27.0	5.0
Total Split (s)	26.0	26.0	27.0	27.0	27.0	5.0
Total Split (%)	44.8%	44.8%	46.6%	46.6%	46.6%	9%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9	
Lead/Lag	Lag	Lag				Lead
Lead-Lag Optimize?						Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None
Act Effct Green (s)	10.7	10.7	38.8	38.8	38.8	
Actuated g/C Ratio	0.18	0.18	0.67	0.67	0.67	
v/c Ratio	0.35	0.22	0.37	0.23	0.19	
Control Delay (s/veh)	24.2	8.7	6.3	8.3	5.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	24.2	8.7	6.3	8.3	5.6	
LOS	C	A	A	A	A	
Approach Delay (s/veh)	18.6		6.3		6.1	
Approach LOS	B		A		A	
Queue Length 50th (m)	9.5	0.0	16.6	3.7	8.7	
Queue Length 95th (m)	19.8	7.4	30.0	11.6	16.2	
Internal Link Dist (m)	30.6		33.7		44.8	
Turn Bay Length (m)				40.0		
Base Capacity (vph)	523	435	1917	379	2101	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.19	0.13	0.37	0.23	0.19	

Intersection Summary

Cycle Length: 58
Actuated Cycle Length: 58
Offset: 25 (43%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.37
Intersection Signal Delay (s/veh): 7.7 — Intersection LOS: A
Intersection Capacity Utilization 61.5% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition

6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	65	16	741	578	
Future Volume (vph)	65	16	741	578	
Lane Group Flow (vph)	82	0	841	703	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	20.0	55.0	55.0	55.0	5.0
Total Split (s)	20.0	55.0	55.0	55.0	5.0
Total Split (%)	25.0%	68.8%	68.8%	68.8%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	None	C-Max	C-Max	C-Max	None
Act Effct Green (s)	10.8		62.6	62.6	
Actuated g/C Ratio	0.14		0.78	0.78	
v/c Ratio	0.39		0.37	0.30	
Control Delay (s/veh)	34.1		5.2	3.7	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	34.1		5.2	3.7	
LOS	C		A	A	
Approach Delay (s/veh)	34.1		5.2	3.7	
Approach LOS	C		A	A	
Queue Length 50th (m)	10.5		27.7	14.3	
Queue Length 95th (m)	22.4		m43.3	24.5	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	280		2294	2337	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.29		0.37	0.30	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 4 (5%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.39
Intersection Signal Delay (s/veh): 6.0 — Intersection LOS: A
Intersection Capacity Utilization 54.2% — ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	59	61	19	61	23	1012	193	439		
Future Volume (vph)	59	61	19	61	23	1012	193	439		
Lane Group Flow (vph)	0	148	0	401	0	1166	0	751		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	26.0	26.0	26.0	26.0	38.0	38.0	11.0	49.0	5.0	5.0
Total Split (s)	26.0	26.0	26.0	26.0	38.0	38.0	11.0	38.0	5.0	5.0
Total Split (%)	32.5%	32.5%	32.5%	32.5%	47.5%	47.5%	13.8%	47.5%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		22.0		22.0		46.4		46.4		
Actuated g/C Ratio		0.28		0.28		0.58		0.58		
v/c Ratio		0.65		0.88		0.69		1.22dl		
Control Delay (s/veh)		38.3		33.7		15.4		34.4		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		38.3		33.7		15.4		34.4		
LOS		D		C		B		C		
Approach Delay (s/veh)		38.3		33.7		15.4		34.4		
Approach LOS		D		C		B		C		
Queue Length 50th (m)		18.5		26.2		66.5		58.1		
Queue Length 95th (m)		37.4		#76.1		91.0		#91.1		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		246		476		1699		907		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.60		0.84		0.69		0.83		

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 60 (75%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay (s/veh): 25.5 Intersection LOS: C
Intersection Capacity Utilization 98.2% ICU Level of Service F
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	58	24	249	301	
Future Volume (vph)	58	24	249	301	
Lane Group Flow (vph)	84	0	304	390	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	32.0	32.0	32.0	16.0
Total Split (s)	22.0	32.0	32.0	32.0	16.0
Total Split (%)	31.4%	45.7%	45.7%	45.7%	23%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	Max	None
Act Effct Green (s)	10.1		25.2	25.2	
Actuated g/C Ratio	0.21		0.53	0.53	
v/c Ratio	0.25		0.36	0.45	
Control Delay (s/veh)	18.1		8.2	9.1	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	18.1		8.2	9.1	
LOS	B		A	A	
Approach Delay (s/veh)	18.1		8.2	9.1	
Approach LOS	B		A	A	
Queue Length 50th (m)	6.0		13.1	17.8	
Queue Length 95th (m)	14.9		25.7	33.9	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	536		841	872	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.16		0.36	0.45	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 47.8
Natural Cycle: 70
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.45
Intersection Signal Delay (s/veh): 9.7 Intersection LOS: A
Intersection Capacity Utilization 53.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Queen Elizabeth Drive & Fifth

Intersection

Int Delay, s/veh 5.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	192	146	659	414	26
Future Vol, veh/h	1	192	146	659	414	26
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	1	213	162	732	460	29

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1343	652	667	0	-	0
Stage 1	652	-	-	-	-	-
Stage 2	691	-	-	-	-	-
Critical Hdwy	6.675	6.275	4.175	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	2.2475	-	-	-
Pot Cap-1 Maneuver	152	460	904	-	-	-
Stage 1	510	-	-	-	-	-
Stage 2	453	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	72	373	733	-	-	-
Mov Cap-2 Maneuver	72	-	-	-	-	-
Stage 1	299	-	-	-	-	-
Stage 2	368	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	26.74	3.83	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	584	-	373	-	-
HCM Lane V/C Ratio	0.221	-	0.571	-	-
HCM Ctrl Dly (s/v)	11.3	2.2	26.7	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %tile Q(veh)	0.8	-	3.4	-	-

Intersection	
Int Delay, s/veh	0,3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	27	0	793	595	0
Future Vol, veh/h	0	27	0	793	595	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	0	30	0	881	661	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	661	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6,275	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3,3475	-	-	-	-
Pot Cap-1 Maneuver	0	455	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	455	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	13,47	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	455	-
HCM Lane V/C Ratio	-	0,066	-
HCM Ctrl Dly (s/v)	-	13,5	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0,2	-

Intersection	
Int Delay, s/veh	2,4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	44	72	255	284	77
Future Vol, veh/h	40	44	72	255	284	77
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	44	49	80	283	316	86

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	802	358	401	0	-	0
Stage 1	358	-	-	-	-	-
Stage 2	443	-	-	-	-	-
Critical Hdwy	6,4	6,2	4,1	-	-	-
Critical Hdwy Stg 1	5,4	-	-	-	-	-
Critical Hdwy Stg 2	5,4	-	-	-	-	-
Follow-up Hdwy	3,5	3,3	2,2	-	-	-
Pot Cap-1 Maneuver	356	690	1168	-	-	-
Stage 1	712	-	-	-	-	-
Stage 2	651	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	327	690	1168	-	-	-
Mov Cap-2 Maneuver	327	-	-	-	-	-
Stage 1	654	-	-	-	-	-
Stage 2	651	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	15,03	1,83	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	396	-	452	-	-
HCM Lane V/C Ratio	0,068	-	0,207	-	-
HCM Ctrl Dly (s/v)	8,3	0	15	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0,2	-	0,8	-	-

Intersection	
Int Delay, s/veh	0,7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	53	581	8	0	437
Future Vol, veh/h	0	53	581	8	0	437
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	15	6	0	0	5
Mvmt Flow	0	59	646	9	0	486

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	427	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7,2	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3,45	-	-	-	-
Pot Cap-1 Maneuver	0	541	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	484	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	13,47	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	484	-
HCM Lane V/C Ratio	-	-	0,122	-
HCM Ctrl Dly (s/v)	-	-	13,5	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0,4	-

Intersection	
Int Delay, s/veh	3,8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	114	78	5	70	71	17
Future Vol, veh/h	114	78	5	70	71	17
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	127	87	6	78	79	19

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	313	0	459	370
Stage 1	-	-	-	-	270	-
Stage 2	-	-	-	-	189	-
Critical Hdwy	-	-	4,12	-	6,42	6,22
Critical Hdwy Stg 1	-	-	-	-	5,42	-
Critical Hdwy Stg 2	-	-	-	-	5,42	-
Follow-up Hdwy	-	-	2,218	-	3,518	3,318
Pot Cap-1 Maneuver	-	-	1247	-	560	676
Stage 1	-	-	-	-	775	-
Stage 2	-	-	-	-	843	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1115	-	446	540
Mov Cap-2 Maneuver	-	-	-	-	446	-
Stage 1	-	-	-	-	693	-
Stage 2	-	-	-	-	750	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0,55	14,89
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	461	-	-	120	-
HCM Lane V/C Ratio	0,212	-	-	0,005	-
HCM Ctrl Dly (s/v)	14,9	-	-	8,2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0,8	-	-	0	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	42	125	24	42	8
Future Vol, veh/h	5	42	125	24	42	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	47	139	27	47	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	166	0	-	0	210	152
Stage 1	-	-	-	-	152	-
Stage 2	-	-	-	-	58	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1413	-	-	-	778	894
Stage 1	-	-	-	-	876	-
Stage 2	-	-	-	-	965	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1413	-	-	-	775	894
Mov Cap-2 Maneuver	-	-	-	-	775	-
Stage 1	-	-	-	-	872	-
Stage 2	-	-	-	-	965	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.8	0	9.89
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	191	-	-	-	792
HCM Lane V/C Ratio	0.004	-	-	-	0.07
HCM Ctrl Dly (s/v)	7.6	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

2033 TOTAL – WEEKDAY PM

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	129	146	5	5	5
Future Vol, veh/h	10	129	146	5	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	143	162	6	6	6
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	8	8	7.5
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	0%	50%
Vol Thru, %	93%	97%	0%
Vol Right, %	0%	3%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	139	151	10
LT Vol	10	0	5
Through Vol	129	146	0
RT Vol	0	5	5
Lane Flow Rate	154	168	11
Geometry Grp	1	1	1
Degree of Util (X)	0.176	0.189	0.014
Departure Headway (Hd)	4.093	4.048	4.423
Convergence, Y/N	Yes	Yes	Yes
Cap	873	883	814
Service Time	2.135	2.089	2.423
HCM Lane V/C Ratio	0.176	0.19	0.014
HCM Control Delay, s/veh	8	8	7.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0.7	0

Intersection	
Intersection Delay, s/veh	6.9
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	4	5	5	10	8	7
Future Vol, veh/h	4	5	5	10	8	7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	6	6	11	9	8
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	6.7	7.1	6.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	53%	0%	33%
Vol Thru, %	0%	44%	67%
Vol Right, %	47%	56%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	15	9	15
LT Vol	8	0	5
Through Vol	0	4	10
RT Vol	7	5	0
Lane Flow Rate	17	10	17
Geometry Grp	1	1	1
Degree of Util (X)	0.018	0.01	0.019
Departure Headway (Hd)	3.807	3.643	4.038
Convergence, Y/N	Yes	Yes	Yes
Cap	943	986	890
Service Time	1.817	1.652	2.045
HCM Lane V/C Ratio	0.018	0.01	0.019
HCM Control Delay, s/veh	6.9	6.7	7.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0	0.1

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	6	5	146	8	8	127
Future Vol, veh/h	6	5	146	8	8	127
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	6	162	9	9	141
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.2	8.6	7.5
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	6%	0%	95%
Vol Thru, %	0%	55%	5%
Vol Right, %	94%	45%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	135	11	154
LT Vol	8	0	146
Through Vol	0	6	8
RT Vol	127	5	0
Lane Flow Rate	150	12	171
Geometry Grp	1	1	1
Degree of Util (X)	0.159	0.014	0.209
Departure Headway (Hd)	3.813	4.162	4.396
Convergence, Y/N	Yes	Yes	Yes
Cap	947	865	811
Service Time	1.813	2.162	2.451
HCM Lane V/C Ratio	0.158	0.014	0.211
HCM Control Delay, s/veh	7.5	7.2	8.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0	0.8

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	76	40	0	0	0	106	45	27	34	0	0	95
Future Vol, veh/h	76	40	0	0	0	106	45	27	34	0	0	95
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	84	44	0	0	0	118	50	30	38	0	0	106
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.6	7.6	8.3	7.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	42%	66%	0%	0%
Vol Thru, %	25%	34%	0%	0%
Vol Right, %	32%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	106	116	106	95
LT Vol	45	76	0	0
Through Vol	27	40	0	0
RT Vol	34	0	106	95
Lane Flow Rate	118	129	118	106
Geometry Grp	1	1	1	1
Degree of Util (X)	0.147	0.167	0.13	0.118
Departure Headway (Hd)	4.487	4.675	3.976	4.02
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	800	768	902	892
Service Time	2.509	2.699	1.999	2.042
HCM Lane V/C Ratio	0.148	0.168	0.131	0.119
HCM Control Delay, s/veh	8.3	8.6	7.6	7.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.6	0.4	0.4

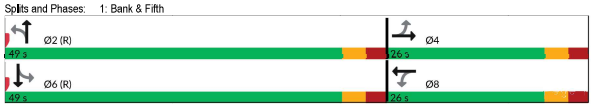
1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	48	55	61	39	17	476	30	626
Future Volume (vph)	48	55	61	39	17	476	30	626
Lane Group Flow (vph)	0	167	68	87	0	584	0	771
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		13.4	13.4	13.4		50.6		50.6
Actuated g/C Ratio		0.18	0.18	0.18		0.67		0.67
v/c Ratio		0.67	0.41	0.31		0.31		0.42
Control Delay (s/veh)		35.8	33.0	16.7		5.6		7.1
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		35.8	33.0	16.7		5.6		7.1
LOS		D	C	B		A		A
Approach Delay (s/veh)		35.8		23.9		5.6		7.1
Approach LOS		D		C		A		A
Queue Length 50th (m)		18.0	8.6	5.2		13.6		21.4
Queue Length 95th (m)		33.2	17.9	14.9		25.2		41.5
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		364	253	409		1862		1852
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.46	0.27	0.21		0.31		0.42

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay (s/veh): 11.0 Intersection LOS: B
Intersection Capacity Utilization 69.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth



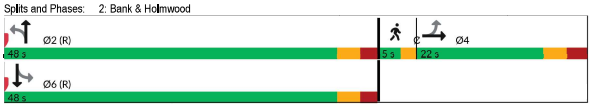
2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	18	26	524	34	596	
Future Volume (vph)	18	26	524	34	596	
Lane Group Flow (vph)	114	0	675	0	732	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	11.7		55.9		55.9	
Actuated g/C Ratio	0.16		0.75		0.75	
v/c Ratio	0.56		0.35		0.37	
Control Delay (s/veh)	38.8		5.2		3.2	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.8		5.2		3.2	
LOS	D		A		A	
Approach Delay (s/veh)	38.8		5.2		3.2	
Approach LOS	D		A		A	
Queue Length 50th (m)	15.1		15.8		12.7	
Queue Length 95th (m)	27.8		30.5		16.5	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	288		1952		2001	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.40		0.35		0.37	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay (s/veh): 6.8 Intersection LOS: A
Intersection Capacity Utilization 68.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



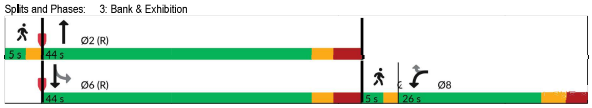
3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	139	71	488	141	511		
Future Volume (vph)	139	71	488	141	511		
Lane Group Flow (vph)	154	79	714	157	568		
Turn Type	Prot	Perm	NA	Perm	NA		
Protected Phases	8		2		6	1	7
Permitted Phases		8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (%)	32.5%	32.5%	55.0%	55.0%	55.0%	6%	6%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	13.6	13.6	53.2	53.2	53.2		
Actuated g/C Ratio	0.17	0.17	0.67	0.67	0.67		
v/c Ratio	0.59	0.32	0.39	0.43	0.27		
Control Delay (s/veh)	39.3	10.3	6.6	12.0	6.4		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	39.3	10.3	6.6	12.0	6.4		
LOS	D	B	A	B	A		
Approach Delay (s/veh)	29.5		6.6		7.6		
Approach LOS	C		A		A		
Queue Length 50th (m)	22.0	0.0	19.1	9.5	15.7		
Queue Length 95th (m)	36.9	10.1	35.3	28.1	28.2		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	379	326	1826	365	2087		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.41	0.24	0.39	0.43	0.27		

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay (s/veh): 10.2 Intersection LOS: B
Intersection Capacity Utilization 62.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition



6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	57	21	730	780	
Future Volume (vph)	57	21	730	780	
Lane Group Flow (vph)	90	0	834	975	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.1		60.2	60.2	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.38		0.44	0.50	
Control Delay (s/veh)	31.6		5.0	8.2	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	31.6		5.0	8.2	
LOS	C		A	A	
Approach Delay (s/veh)	31.6		5.0	8.2	
Approach LOS	C		A	A	
Queue Length 50th (m)	10.7		19.1	37.1	
Queue Length 95th (m)	24.5		m22.2	51.0	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	275		1910	1959	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.33		0.44	0.50	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.50
Intersection Signal Delay (s/veh): 7.9 Intersection LOS: A
Intersection Capacity Utilization 57.9% ICU Level of Service B
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	53	82	17	85	15	463	211	777		
Future Volume (vph)	53	82	17	85	15	463	211	777		
Lane Group Flow (vph)	0	184	0	395	0	554	0	1203		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	60.0	5.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	43.0	5.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%	47.8%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	2.9	3.0	0.0	0.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		24.4		24.4		54.0		54.0		
Actuated g/C Ratio		0.27		0.27		0.60		0.60		
v/c Ratio		0.72		0.98		0.33		0.97		
Control Delay (s/veh)		47.9		64.6		9.5		34.6		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		47.9		64.6		9.5		34.6		
LOS		D		E		A		C		
Approach Delay (s/veh)		47.9		64.6		9.5		34.6		
Approach LOS		D		E		A		C		
Queue Length 50th (m)		28.8		49.1		22.7		100.1		
Queue Length 95th (m)		#60.1		#107.2		32.0		#153.3		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		255		403		1678		1235		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.72		0.98		0.33		0.97		

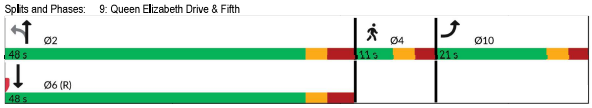
Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 120			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay (s/veh): 34.8		Intersection LOS: C	
Intersection Capacity Utilization 96.8%		ICU Level of Service F	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	40	39	207	542	
Future Volume (vph)	40	39	207	542	
Lane Group Flow (vph)	83	0	273	676	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	10.9		56.6	56.6	
Actuated g/C Ratio	0.14		0.71	0.71	
v/c Ratio	0.40		0.27	0.58	
Control Delay (s/veh)	37.0		5.3	8.5	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	37.0		5.3	8.5	
LOS	D		A	A	
Approach Delay (s/veh)	37.0		5.3	8.5	
Approach LOS	D		A	A	
Queue Length 50th (m)	11.9		11.7	39.8	
Queue Length 95th (m)	23.8		24.2	76.6	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	294		1016	1174	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.28		0.27	0.58	

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay (s/veh): 9.9		Intersection LOS: A	
Intersection Capacity Utilization 65.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 9: Queen Elizabeth Drive & Fifth



Intersection	
Int Delay, s/veh	15.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	239	219	600	598	51
Future Vol, veh/h	3	239	219	600	598	51
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	3	266	243	667	664	57

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1691	871	899	0	-	0
Stage 1	871	-	-	-	-	-
Stage 2	820	-	-	-	-	-
Critical Hdwy	6.675	6.275	4.175	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	2.2475	-	-	-
Pot Cap-1 Maneuver	91	344	738	-	-	-
Stage 1	402	-	-	-	-	-
Stage 2	388	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	30	279	599	-	-	-
Mov Cap-2 Maneuver	30	-	-	-	-	-
Stage 1	164	-	-	-	-	-
Stage 2	315	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	82.08	7.21	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	488	-	279	-	-
HCM Lane V/C Ratio	0.406	-	0.951	-	-
HCM Ctrl Dly (s/v)	15.1	4.3	82.1	-	-
HCM Lane LOS	C	A	F	-	-
HCM 95th %tile Q(veh)	2	-	9.2	-	-

Intersection	
Int Delay, s/veh	2,5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	65	29	112	62	5
Future Vol, veh/h	5	65	29	112	62	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	72	32	124	69	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	157	0	-	0	178	94
Stage 1	-	-	-	-	94	-
Stage 2	-	-	-	-	83	-
Critical Hdwy	4,12	-	-	-	6,42	6,22
Critical Hdwy Stg 1	-	-	-	-	5,42	-
Critical Hdwy Stg 2	-	-	-	-	5,42	-
Follow-up Hdwy	2,218	-	-	-	3,518	3,318
Pot Cap-1 Maneuver	1423	-	-	-	812	962
Stage 1	-	-	-	-	929	-
Stage 2	-	-	-	-	940	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1423	-	-	-	809	962
Mov Cap-2 Maneuver	-	-	-	-	809	-
Stage 1	-	-	-	-	925	-
Stage 2	-	-	-	-	940	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0,54	0	9,84
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	129	-	-	-	818
HCM Lane V/C Ratio	0,004	-	-	-	0,091
HCM Ctrl Dly (s/v)	7,5	0	-	-	9,8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0,3

2033 TOTAL – SATURDAY

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	132	162	5	90	0	98	0	7	0	0	0
Future Vol, veh/h	0	132	162	5	90	0	98	0	7	0	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	147	180	6	100	0	109	0	8	0	0	0
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	9.3	8.3	9	0
HCM LOS	A	A	A	-

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	93%	0%	5%	0%
Vol Thru, %	0%	45%	95%	100%
Vol Right, %	7%	55%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	105	294	95	0
LT Vol	98	0	5	0
Through Vol	0	132	90	0
RT Vol	7	162	0	0
Lane Flow Rate	117	327	106	0
Geometry Grp	1	1	1	1
Degree of Util (X)	0.162	0.365	0.134	0
Departure Headway (Hd)	4.992	4.026	4.57	5.017
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	719	895	785	0
Service Time	3.023	2.042	2.593	3.056
HCM Lane V/C Ratio	0.163	0.365	0.135	0
HCM Control Delay, s/veh	9	9.3	8.3	8.1
HCM Lane LOS	A	A	A	N
HCM 95th-tile Q	0.6	1.7	0.5	0

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	128	90	5	5	5
Future Vol, veh/h	11	128	90	5	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	142	100	6	6	6
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	7.9	7.6	7.3
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	0%	50%
Vol Thru, %	92%	95%	0%
Vol Right, %	0%	5%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	139	95	10
LT Vol	11	0	5
Through Vol	128	90	0
RT Vol	0	5	5
Lane Flow Rate	154	106	11
Geometry Grp	1	1	1
Degree of Util (X)	0.174	0.118	0.013
Departure Headway (Hd)	4.048	4.037	4.29
Convergence, Y/N	Yes	Yes	Yes
Cap	887	886	839
Service Time	2.074	2.074	2.29
HCM Lane V/C Ratio	0.174	0.12	0.013
HCM Control Delay, s/veh	7.9	7.6	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0.4	0

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	17	5	5	80	9	8
Future Vol, veh/h	17	5	5	80	9	8
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	6	6	89	10	9
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7	7.5	7.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	53%	0%	6%
Vol Thru, %	0%	77%	94%
Vol Right, %	47%	23%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	17	22	85
LT Vol	9	0	5
Through Vol	0	17	80
RT Vol	8	5	0
Lane Flow Rate	19	24	94
Geometry Grp	1	1	1
Degree of Util (X)	0.021	0.026	0.105
Departure Headway (Hd)	3.963	3.902	3.998
Convergence, Y/N	Yes	Yes	Yes
Cap	898	917	899
Service Time	2.011	1.927	2.009
HCM Lane V/C Ratio	0.021	0.026	0.105
HCM Control Delay, s/veh	7.1	7	7.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.1	0.4

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	19	5	90	8	110	24
Future Vol, veh/h	19	5	90	8	110	24
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	6	100	9	122	27
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.4	8.2	8.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	82%	0%	92%
Vol Thru, %	0%	79%	8%
Vol Right, %	18%	21%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	134	24	98
LT Vol	110	0	90
Through Vol	0	19	8
RT Vol	24	5	0
Lane Flow Rate	149	27	109
Geometry Grp	1	1	1
Degree of Util (X)	0.175	0.032	0.133
Departure Headway (Hd)	4.226	4.274	4.4
Convergence, Y/N	Yes	Yes	Yes
Cap	838	843	803
Service Time	2.31	2.274	2.493
HCM Lane V/C Ratio	0.178	0.032	0.136
HCM Control Delay, s/veh	8.2	7.4	8.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0.1	0.5

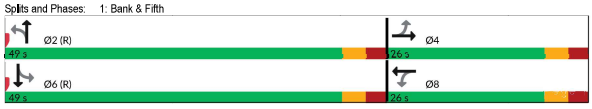
1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	46	41	69	45	21	508	20	578
Future Volume (vph)	46	41	69	45	21	508	20	578
Lane Group Flow (vph)	0	145	77	113	0	614	0	694
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		12.2	12.2	12.2		51.8		51.8
Actuated g/C Ratio		0.16	0.16	0.16		0.69		0.69
v/c Ratio		0.65	0.48	0.42		0.32		0.36
Control Delay (s/veh)		35.1	37.0	17.7		5.0		6.0
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		35.1	37.0	17.7		5.0		6.0
LOS		D	D	B		A		A
Approach Delay (s/veh)		35.1		25.6		5.0		6.0
Approach LOS		D		C		A		A
Queue Length 50th (m)		14.8	10.0	6.3		13.5		17.3
Queue Length 95th (m)		29.3	20.2	17.7		24.4		33.9
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		354	269	416		1914		1943
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.41	0.29	0.27		0.32		0.36

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay (s/veh): 10.5 Intersection LOS: B
Intersection Capacity Utilization 58.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth



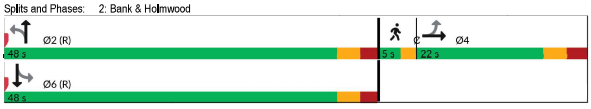
2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	10	29	517	37	584	
Future Volume (vph)	10	29	517	37	584	
Lane Group Flow (vph)	113	0	664	0	716	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	11.7		55.9		55.9	
Actuated g/C Ratio	0.16		0.75		0.75	
v/c Ratio	0.56		0.34		0.36	
Control Delay (s/veh)	38.9		2.2		3.4	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.9		2.2		3.4	
LOS	D		A		A	
Approach Delay (s/veh)	38.9		2.2		3.4	
Approach LOS	D		A		A	
Queue Length 50th (m)	14.9		4.2		13.3	
Queue Length 95th (m)	27.7		10.2		17.5	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	285		1946		1990	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.40		0.34		0.36	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay (s/veh): 5.6 Intersection LOS: A
Intersection Capacity Utilization 67.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	107	81	463	150	485		
Future Volume (vph)	107	81	463	150	485		
Lane Group Flow (vph)	119	90	674	167	539		
Turn Type	Prot	Perm	NA	Perm	NA		
Protected Phases	8		2		6	1	7
Permitted Phases		8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	39.0	39.0	39.0	5.0	5.0
Total Split (s)	26.0	26.0	39.0	39.0	39.0	5.0	5.0
Total Split (%)	34.7%	34.7%	52.0%	52.0%	52.0%	7%	7%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	3.5
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	11.9	11.9	54.5	54.5	54.5		
Actuated g/C Ratio	0.16	0.16	0.73	0.73	0.73		
v/c Ratio	0.49	0.36	0.34	0.40	0.24		
Control Delay (s/veh)	35.2	10.8	5.3	7.4	3.6		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	35.2	10.8	5.3	7.4	3.6		
LOS	D	B	A	A	A		
Approach Delay (s/veh)	24.7		5.3		4.5		
Approach LOS	C		A		A		
Queue Length 50th (m)	15.8	0.0	15.8	6.0	9.8		
Queue Length 95th (m)	28.8	10.8	29.2	13.2	13.6		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	405	356	2002	416	2283		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.29	0.25	0.34	0.40	0.24		

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 60 (80%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.49
Intersection Signal Delay (s/veh): 7.5 Intersection LOS: A
Intersection Capacity Utilization 61.4% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition

6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	39	19	715	742	
Future Volume (vph)	39	19	715	742	
Lane Group Flow (vph)	56	0	815	892	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	19.5	35.2	35.2	35.2	4.0
Total Split (s)	20.0	65.0	65.0	65.0	5.0
Total Split (%)	22.2%	72.2%	72.2%	72.2%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.0		60.3	60.3	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.24		0.42	0.44	
Control Delay (s/veh)	30.0		5.2	7.6	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	30.0		5.2	7.6	
LOS	C		A	A	
Approach Delay (s/veh)	30.0		5.2	7.6	
Approach LOS	C		A	A	
Queue Length 50th (m)	6.6		20.5	32.5	
Queue Length 95th (m)	17.3		26.5	43.6	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	244		1930	2008	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.23		0.42	0.44	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 28 (31%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.44
Intersection Signal Delay (s/veh): 7.2 Intersection LOS: A
Intersection Capacity Utilization 55.9% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	42	38	20	58	30	524	85	570		
Future Volume (vph)	42	38	20	58	30	524	85	570		
Lane Group Flow (vph)	0	138	0	198	0	652	0	789		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	20.0	20.0	20.0	20.0	54.0	54.0	11.0	54.0	5.0	5.0
Total Split (s)	20.0	20.0	20.0	20.0	54.0	54.0	11.0	54.0	5.0	5.0
Total Split (%)	22.2%	22.2%	22.2%	22.2%	60.0%	60.0%	12.2%	60.0%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		19.2		19.2		59.2		59.2		
Actuated g/C Ratio		0.21		0.21		0.66		0.66		
v/c Ratio		0.62		0.65		0.37		0.52		
Control Delay (s/veh)		45.3		33.3		7.6		7.1		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		45.3		33.3		7.6		7.1		
LOS		D		C		A		A		
Approach Delay (s/veh)		45.3		33.3		7.6		7.1		
Approach LOS		D		C		A		A		
Queue Length 50th (m)		21.7		21.3		23.4		17.9		
Queue Length 95th (m)		#43.9		#45.9		32.6		22.2		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		224		303		1777		1516		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.62		0.65		0.37		0.52		

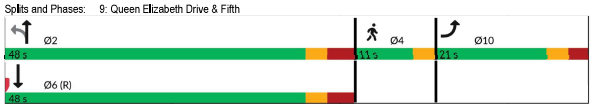
Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 33 (37%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.65			
Intersection Signal Delay (s/veh): 13.1		Intersection LOS: B	
Intersection Capacity Utilization 73.8%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	60	42	259	371	
Future Volume (vph)	60	42	259	371	
Lane Group Flow (vph)	101	0	335	471	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	11.5		56.0	56.0	
Actuated g/C Ratio	0.14		0.70	0.70	
v/c Ratio	0.45		0.32	0.41	
Control Delay (s/veh)	37.7		5.9	6.6	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	37.7		5.9	6.6	
LOS	D		A	A	
Approach Delay (s/veh)	37.7		5.9	6.6	
Approach LOS	D		A	A	
Queue Length 50th (m)	14.5		15.5	23.7	
Queue Length 95th (m)	27.3		31.9	46.6	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	298		1056	1161	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.34		0.32	0.41	

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.45			
Intersection Signal Delay (s/veh): 9.8		Intersection LOS: A	
Intersection Capacity Utilization 65.3%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 9: Queen Elizabeth Drive & Fifth



Intersection						
Int Delay, s/veh	6.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	182	119	602	545	56
Future Vol, veh/h	3	182	119	602	545	56
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	3	202	132	669	606	62

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1414	815	846	0	-	0
Stage 1	815	-	-	-	-	-
Stage 2	599	-	-	-	-	-
Critical Hdwy	6.675	6.275	4.175	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	2.2475	-	-	-
Pot Cap-1 Maneuver	137	371	773	-	-	-
Stage 1	428	-	-	-	-	-
Stage 2	506	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	67	301	627	-	-	-
Mov Cap-2 Maneuver	67	-	-	-	-	-
Stage 1	257	-	-	-	-	-
Stage 2	410	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	38.38	3.92	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	511	-	301	-	-
HCM Lane V/C Ratio	0.211	-	0.672	-	-
HCM Ctrl Dly (s/v)	12.3	2.3	38.4	-	-
HCM Lane LOS	B	A	E	-	-
HCM 95th %ile Q(veh)	0.8	-	4.5	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	33	0	710	718	0
Future Vol, veh/h	1	33	0	710	718	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	1	37	0	789	798	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1192	798	-	0	-	0
Stage 1	798	-	-	-	-	-
Stage 2	394	-	-	-	-	-
Critical Hdwy	6.675	6.275	-	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	-	-	-	-
Pot Cap-1 Maneuver	189	379	0	-	-	0
Stage 1	436	-	0	-	-	0
Stage 2	643	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	189	379	-	-	-	-
Mov Cap-2 Maneuver	189	-	-	-	-	-
Stage 1	436	-	-	-	-	-
Stage 2	643	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	15.51	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	379	-
HCM Lane V/C Ratio	-	0.097	-
HCM Ctrl Dly (s/v)	-	15.5	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	0.3	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	81	68	70	216	259	144
Future Vol, veh/h	81	68	70	216	259	144
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	90	76	78	240	288	160

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	763	368	448	0	-	0
Stage 1	368	-	-	-	-	-
Stage 2	396	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	375	682	1123	-	-	-
Stage 1	705	-	-	-	-	-
Stage 2	685	-	-	-	-	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	345	682	1123	-	-	-
Mov Cap-2 Maneuver	345	-	-	-	-	-
Stage 1	648	-	-	-	-	-
Stage 2	685	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	17.78	2.07	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	441	-	446	-	-
HCM Lane V/C Ratio	0.069	-	0.372	-	-
HCM Ctrl Dly (s/v)	8.4	0	17.8	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.7	-	-

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	83	524	20	2	629
Future Vol, veh/h	6	83	524	20	2	629
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	15	6	0	0	5
Mvmt Flow	7	92	582	22	2	699

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1047	402	0	0	704	0
Stage 1	693	-	-	-	-	-
Stage 2	354	-	-	-	-	-
Critical Hdwy	6.8	7.2	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.45	-	-	2.2	-
Pot Cap-1 Maneuver	227	563	-	-	903	-
Stage 1	463	-	-	-	-	-
Stage 2	687	-	-	-	-	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	202	503	-	-	807	-
Mov Cap-2 Maneuver	202	-	-	-	-	-
Stage 1	414	-	-	-	-	-
Stage 2	685	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	13.76	0	0.03
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	503	807	-
HCM Lane V/C Ratio	-	-	0.183	0.003	-
HCM Ctrl Dly (s/v)	-	-	13.8	9.5	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0	-

Intersection	
Int Delay, s/veh	3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	123	124	5	88	72	5
Future Vol, veh/h	123	124	5	88	72	5
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	137	138	6	98	80	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	374	0	514	406
Stage 1	-	-	-	-	306	-
Stage 2	-	-	-	-	209	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1184	-	520	645
Stage 1	-	-	-	-	747	-
Stage 2	-	-	-	-	826	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1059	-	414	516
Mov Cap-2 Maneuver	-	-	-	-	414	-
Stage 1	-	-	-	-	668	-
Stage 2	-	-	-	-	735	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.45	15.78
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	419	-	-	97	-
HCM Lane V/C Ratio	0.204	-	-	0.005	-
HCM Ctrl Dly (s/v)	15.8	-	-	8.4	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0	-

Intersection	
Int Delay, s/veh	3,3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	32	76	112	96	5
Future Vol, veh/h	5	32	76	112	96	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	36	84	124	107	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	209	0	-	0	193	147
Stage 1	-	-	-	-	147	-
Stage 2	-	-	-	-	47	-
Critical Hdwy	4,12	-	-	-	6,42	6,22
Critical Hdwy Stg 1	-	-	-	-	5,42	-
Critical Hdwy Stg 2	-	-	-	-	5,42	-
Follow-up Hdwy	2,218	-	-	-	3,518	3,318
Pot Cap-1 Maneuver	1362	-	-	-	796	900
Stage 1	-	-	-	-	881	-
Stage 2	-	-	-	-	976	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1362	-	-	-	792	900
Mov Cap-2 Maneuver	-	-	-	-	792	-
Stage 1	-	-	-	-	877	-
Stage 2	-	-	-	-	976	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1,03	0	10,26
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	243	-	-	-	797
HCM Lane V/C Ratio	0,004	-	-	-	0,141
HCM Ctrl Dly (s/v)	7,7	0	-	-	10,3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0,5

2033 TOTAL – SUNDAY

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	157	105	5	5	5
Future Vol, veh/h	15	157	105	5	5	5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	174	117	6	6	6
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	8.2	7.8	7.5
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	0%	50%
Vol Thru, %	91%	95%	0%
Vol Right, %	0%	5%	50%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	172	110	10
LT Vol	15	0	5
Through Vol	157	105	0
RT Vol	0	5	5
Lane Flow Rate	191	122	11
Geometry Grp	1	1	1
Degree of Util (X)	0.216	0.138	0.014
Departure Headway (Hd)	4.062	4.069	4.404
Convergence, Y/N	Yes	Yes	Yes
Cap	883	876	818
Service Time	2.095	2.115	2.404
HCM Lane V/C Ratio	0.216	0.139	0.013
HCM Control Delay, s/veh	8.2	7.8	7.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.8	0.5	0

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	18	5	5	175	12	8
Future Vol, veh/h	18	5	5	175	12	8
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	6	6	194	13	9
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.2	8.2	7.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	60%	0%	3%
Vol Thru, %	0%	78%	97%
Vol Right, %	40%	22%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	20	23	180
LT Vol	12	0	5
Through Vol	0	18	175
RT Vol	8	5	0
Lane Flow Rate	22	26	200
Geometry Grp	1	1	1
Degree of Util (X)	0.026	0.028	0.222
Departure Headway (Hd)	4.204	3.992	3.998
Convergence, Y/N	Yes	Yes	Yes
Cap	838	891	900
Service Time	2.298	2.042	2.014
HCM Lane V/C Ratio	0.026	0.029	0.222
HCM Control Delay, s/veh	7.4	7.2	8.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.1	0.8

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	21	5	58	6	134	28
Future Vol, veh/h	21	5	58	6	134	28
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	6	64	7	149	31
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.5	8	8.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	83%	0%	91%
Vol Thru, %	0%	81%	9%
Vol Right, %	17%	19%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	162	26	64
LT Vol	134	0	58
Through Vol	0	21	6
RT Vol	28	5	0
Lane Flow Rate	180	29	71
Geometry Grp	1	1	1
Degree of Util (X)	0.208	0.035	0.09
Departure Headway (Hd)	4.169	4.31	4.558
Convergence, Y/N	Yes	Yes	Yes
Cap	851	835	791
Service Time	2.238	2.311	2.559
HCM Lane V/C Ratio	0.212	0.035	0.09
HCM Control Delay, s/veh	8.3	7.5	8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.8	0.1	0.3

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	70	83	0	0	0	246	114	67	62	0	0	106
Future Vol, veh/h	70	83	0	0	0	246	114	67	62	0	0	106
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	78	92	0	0	0	273	127	74	69	0	0	118
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10.3	10.2	11.4	8.8
HCM LOS	B	B	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	47%	46%	0%	0%
Vol Thru, %	28%	54%	0%	0%
Vol Right, %	26%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	243	153	246	106
LT Vol	114	70	0	0
Through Vol	67	83	0	0
RT Vol	62	0	246	106
Lane Flow Rate	270	170	273	118
Geometry Grp	1	1	1	1
Degree of Util (X)	0.387	0.256	0.353	0.16
Departure Headway (Hd)	5.161	5.418	4.646	4.876
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	697	663	779	734
Service Time	3.195	3.456	2.646	2.915
HCM Lane V/C Ratio	0.387	0.256	0.35	0.161
HCM Control Delay, s/veh	11.4	10.3	10.2	8.8
HCM Lane LOS	B	B	B	A
HCM 95th-tile Q	1.8	1	1.6	0.6

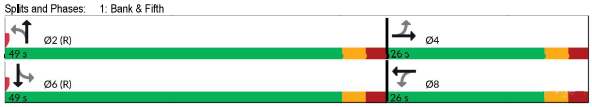
1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	54	38	123	67	16	515	23	561
Future Volume (vph)	54	38	123	67	16	515	23	561
Lane Group Flow (vph)	0	131	137	132	0	620	0	696
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		14.5	14.5	14.5		49.5		49.5
Actuated g/C Ratio		0.19	0.19	0.19		0.66		0.66
v/c Ratio		0.55	0.67	0.42		0.34		0.38
Control Delay (s/veh)		30.8	43.3	19.5		8.5		7.2
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		30.8	43.3	19.5		8.5		7.2
LOS		C	D	B		A		A
Approach Delay (s/veh)		30.8		31.6		8.5		7.2
Approach LOS		C		C		A		A
Queue Length 50th (m)		14.2	18.0	9.7		36.4		19.8
Queue Length 95th (m)		27.5	32.3	22.0		55.8		36.9
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		329	288	424		1848		1818
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.40	0.48	0.31		0.34		0.38

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 42 (56%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay (s/veh): 13.3 — Intersection LOS: B
Intersection Capacity Utilization 61.1% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth



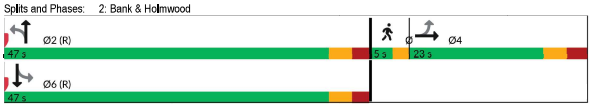
2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	18	32	542	30	589	
Future Volume (vph)	18	32	542	30	589	
Lane Group Flow (vph)	111	0	736	0	727	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	23.0	47.0	47.0	47.0	47.0	5.0
Total Split (s)	23.0	47.0	47.0	47.0	47.0	5.0
Total Split (%)	30.7%	62.7%	62.7%	62.7%	62.7%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	11.6		56.1		56.1	
Actuated g/C Ratio	0.15		0.75		0.75	
v/c Ratio	0.55		0.39		0.36	
Control Delay (s/veh)	38.6		7.0		9.6	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.6		7.0		9.6	
LOS	D		A		A	
Approach Delay (s/veh)	38.6		7.0		9.6	
Approach LOS	D		A		A	
Queue Length 50th (m)	14.7		34.8		28.2	
Queue Length 95th (m)	27.3		57.0		54.6	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	304		1881		2013	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.37		0.39		0.36	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 16 (21%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay (s/veh): 10.4 — Intersection LOS: B
Intersection Capacity Utilization 69.9% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø3	Ø6	Ø7
Lane Configurations								
Traffic Volume (vph)	149	73	427	216	450			
Future Volume (vph)	149	73	427	216	450			
Lane Group Flow (vph)	166	81	632	240	500			
Turn Type	Perm	Perm	NA	custom	NA			
Protected Phases			2	1	1 6	3	6	7
Permitted Phases	8	8		6				
Detector Phase	8	8	2	1	1 6			
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	1.0		3.0	10.0	3.0
Minimum Split (s)	26.0	26.0	27.0	7.9		5.0	27.0	5.0
Total Split (s)	26.0	26.0	27.0	12.0		5.0	27.0	5.0
Total Split (%)	34.7%	34.7%	36.0%	16.0%		7%	36%	7%
Yellow Time (s)	3.3	3.3	3.0	3.0		2.0	3.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9		0.0	3.9	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0				
Total Lost Time (s)	6.3	6.3	6.9	6.9				
Lead/Lag	Lag	Lag				Lead		
Lead-Lag Optimize?	Yes	Yes				Yes		
Recall Mode	None	None	C-Max	None		None	C-Max	None
Act Effct Green (s)	14.2	14.2	35.6	40.7	47.6			
Actuated g/C Ratio	0.19	0.19	0.47	0.54	0.63			
v/c Ratio	0.61	0.30	0.48	0.65	0.25			
Control Delay (s/veh)	37.0	9.1	14.3	23.6	7.6			
Queue Delay	0.0	0.0	0.0	0.0	0.0			
Total Delay (s/veh)	37.0	9.1	14.3	23.6	7.6			
LOS	D	A	B	C	A			
Approach Delay (s/veh)	27.8		14.3		12.8			
Approach LOS	C		B		B			
Queue Length 50th (m)	21.8	0.0	26.9	10.2	11.2			
Queue Length 95th (m)	36.6	9.6	47.0	#43.7	30.5			
Internal Link Dist (m)	30.6		33.7		44.8			
Turn Bay Length (m)				40.0				
Base Capacity (vph)	377	349	1317	372	1993			
Starvation Cap Reductn	0	0	0	0	0			
Spillback Cap Reductn	0	0	0	0	0			
Storage Cap Reductn	0	0	0	0	0			
Reduced v/c Ratio	0.44	0.23	0.48	0.65	0.25			

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay (s/veh): 15.7 — Intersection LOS: B
Intersection Capacity Utilization 64.2% — ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

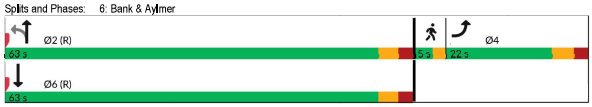
3: Bank & Exhibition

Splits and Phases: 3: Bank & Exhibition

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	54	17	629	682	
Future Volume (vph)	54	17	629	682	
Lane Group Flow (vph)	83	0	718	821	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	4.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	None	C-Max	C-Max	C-Max	None
Act Effct Green (s)	11.1		72.4	72.4	
Actuated g/C Ratio	0.12		0.80	0.80	
v/c Ratio	0.43		0.31	0.34	
Control Delay (s/veh)	35.9		8.8	3.7	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	35.9		8.8	3.7	
LOS	D		A	A	
Approach Delay (s/veh)	35.9		8.8	3.7	
Approach LOS	D		A	A	
Queue Length 50th (m)	10.5		46.3	17.9	
Queue Length 95th (m)	23.2		65.1	30.8	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	276		2329	2403	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.30		0.31	0.34	

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.43
Intersection Signal Delay (s/veh): 7.6 Intersection LOS: A
Intersection Capacity Utilization 51.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø6	Ø7
Lane Configurations											
Traffic Volume (vph)	43	33	16	51	19	503	118	533			
Future Volume (vph)	43	33	16	51	19	503	118	533			
Lane Group Flow (vph)	0	118	0	195	0	593	0	816			
Turn Type	Perm	NA	Perm	NA	Perm	NA	custom	NA			
Protected Phases		4		8		2	1	1 6	3	6	7
Permitted Phases	4		8		2		6				
Detector Phase	4	4	8	8	2	2	1	1 6			
Switch Phase											
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0		1.0	17.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0		5.0	43.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0		5.0	43.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%		6%	48%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0		2.0	3.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9		0.0	3.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0					
Total Lost Time (s)		5.6		5.6		6.0					
Lead/Lag	Lag	Lag	Lag	Lag					Lead		Lead
Lead-Lag Optimize?			Yes	Yes							Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None		None	C-Max	None
Act Effct Green (s)		15.2		15.2		43.6		57.4			
Actuated g/C Ratio		0.17		0.17		0.48		0.64			
v/c Ratio		0.78		0.71		0.43		0.55			
Control Delay (s/veh)		66.7		33.7		17.7		14.4			
Queue Delay		0.0		0.0		0.0		0.0			
Total Delay (s/veh)		66.7		33.7		17.7		14.4			
LOS		E		C		B		B			
Approach Delay (s/veh)		66.7		33.7		17.7		14.4			
Approach LOS		E		C		B		B			
Queue Length 50th (m)		19.8		18.3		34.6		44.8			
Queue Length 95th (m)		35.2		37.4		54.0		71.8			
Internal Link Dist (m)		75.1		136.0		63.1		79.0			
Turn Bay Length (m)											
Base Capacity (vph)		199		335		1385		1500			
Starvation Cap Reductn		0		0		0		0			
Spillback Cap Reductn		0		0		0		0			
Storage Cap Reductn		0		0		0		0			
Reduced v/c Ratio		0.59		0.58		0.43		0.54			

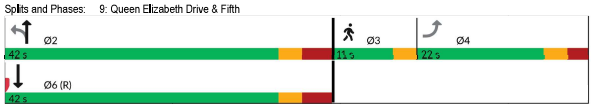
Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 23 (26%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay (s/veh): 21.3 Intersection LOS: C
Intersection Capacity Utilization 74.5% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	13	220	13	12	
Future Volume (vph)	13	220	13	12	
Lane Group Flow (vph)	162	0	258	42	
Turn Type	Perm	Perm	NA	NA	
Protected Phases			2	6	3
Permitted Phases	4	2			
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	42.0	42.0	42.0	9.7
Total Split (s)	22.0	42.0	42.0	42.0	11.0
Total Split (%)	29.3%	56.0%	56.0%	56.0%	15%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	0.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?	Yes				Yes
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	13.8		48.7	48.7	
Actuated g/C Ratio	0.18		0.65	0.65	
v/c Ratio	0.60		0.33	0.04	
Control Delay (s/veh)	36.9		8.1	5.9	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	36.9		8.1	5.9	
LOS	D		A	A	
Approach Delay (s/veh)	36.9		8.1	5.9	
Approach LOS	D		A	A	
Queue Length 50th (m)	21.4		13.9	1.8	
Queue Length 95th (m)	36.0		31.8	6.0	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	330		774	992	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.49		0.33	0.04	

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay (s/veh): 18.0 Intersection LOS: B
Intersection Capacity Utilization 40.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Queen Elizabeth Drive & Fifth



Intersection
Int Delay, s/veh 5.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	156	110	584	526	62
Future Vol, veh/h	5	156	110	584	526	62
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	6	173	122	649	584	69

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1366	797	831	0	-	0
Stage 1	797	-	-	-	-	-
Stage 2	569	-	-	-	-	-
Critical Hdwy	6.675	6.275	4.175	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	2.2475	-	-	-
Pot Cap-1 Maneuver	147	380	783	-	-	-
Stage 1	436	-	-	-	-	-
Stage 2	524	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	74	308	635	-	-	-
Mov Cap-2 Maneuver	74	-	-	-	-	-
Stage 1	271	-	-	-	-	-
Stage 2	425	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	30.71	3.63	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	521	-	308	-	-
HCM Lane V/C Ratio	0.192	-	0.563	-	-
HCM Ctrl Dly (s/v)	12	2	30.7	-	-
HCM Lane LOS	B	A	D	-	-
HCM 95th %ile Q(veh)	0.7	-	3.2	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	71	0	668	686	1
Future Vol, veh/h	2	71	0	668	686	1
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	2	79	0	742	762	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1220	849	-	0	-	0
Stage 1	849	-	-	-	-	-
Stage 2	371	-	-	-	-	-
Critical Hdwy	6.675	6.275	-	-	-	-
Critical Hdwy Stg 1	5.475	-	-	-	-	-
Critical Hdwy Stg 2	5.875	-	-	-	-	-
Follow-up Hdwy	3.5475	3.3475	-	-	-	-
Pot Cap-1 Maneuver	182	354	0	-	-	-
Stage 1	412	-	0	-	-	-
Stage 2	661	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	150	322	-	-	-	-
Mov Cap-2 Maneuver	150	-	-	-	-	-
Stage 1	374	-	-	-	-	-
Stage 2	601	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	19.77	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	322	-	-
HCM Lane V/C Ratio	-	0.245	-	-
HCM Ctrl Dly (s/v)	-	19.8	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.9	-	-

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	101	151	85	131	68	60
Future Vol, veh/h	101	151	85	131	68	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	112	168	94	146	76	67

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	443	109	142	0	-	0
Stage 1	109	-	-	-	-	-
Stage 2	334	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	576	950	1453	-	-	-
Stage 1	921	-	-	-	-	-
Stage 2	730	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	535	950	1453	-	-	-
Mov Cap-2 Maneuver	535	-	-	-	-	-
Stage 1	856	-	-	-	-	-
Stage 2	730	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	13.06	3.01	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	708	-	725	-	-
HCM Lane V/C Ratio	0.065	-	0.386	-	-
HCM Ctrl Dly (s/v)	7.6	0	13.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	1.8	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	180	488	23	0	650
Future Vol, veh/h	7	180	488	23	0	650
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	15	6	0	0	5
Mvmt Flow	8	200	542	26	0	722

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1016	384	0	0	-	-
Stage 1	655	-	-	-	-	-
Stage 2	361	-	-	-	-	-
Critical Hdwy	6.8	7.2	-	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.45	-	-	-	-
Pot Cap-1 Maneuver	238	579	-	-	0	-
Stage 1	484	-	-	-	0	-
Stage 2	682	-	-	-	0	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	212	517	-	-	-	-
Mov Cap-2 Maneuver	212	-	-	-	-	-
Stage 1	433	-	-	-	-	-
Stage 2	682	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	16.27	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	517	-
HCM Lane V/C Ratio	-	-	0.386	-
HCM Ctrl Dly (s/v)	-	-	16.3	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	1.8	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	159	198	5	105	116	12
Future Vol, veh/h	159	198	5	105	116	12
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	177	220	6	117	129	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	497	0	614	487
Stage 1	-	-	-	-	387	-
Stage 2	-	-	-	-	228	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1067	-	455	581
Stage 1	-	-	-	-	687	-
Stage 2	-	-	-	-	810	-
Platoon blocked, %	-	-			-	
Mov Cap-1 Maneuver	-	-	954	-	362	464
Mov Cap-2 Maneuver	-	-	-	-	362	-
Stage 1	-	-	-	-	614	-
Stage 2	-	-	-	-	720	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.4	20.73
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	369	-	-	82	-
HCM Lane V/C Ratio	0.385	-	-	0.006	-
HCM Ctrl Dly (s/v)	20.7	-	-	8.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.8	-	-	0	-

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	61	57	88	190	7
Future Vol, veh/h	5	61	57	88	190	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	68	63	98	211	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	161	0	-	0	191	112
Stage 1	-	-	-	-	112	-
Stage 2	-	-	-	-	79	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1418	-	-	-	798	941
Stage 1	-	-	-	-	912	-
Stage 2	-	-	-	-	944	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1418	-	-	-	795	941
Mov Cap-2 Maneuver	-	-	-	-	795	-
Stage 1	-	-	-	-	909	-
Stage 2	-	-	-	-	944	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.57	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	136	-	-	-	799
HCM Lane V/C Ratio	0.004	-	-	-	0.274
HCM Ctrl Dly (s/v)	7.5	0	-	-	11.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	1.1

Intersection	
Int Delay, s/veh	0,3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	24	0	827	846	2
Future Vol, veh/h	0	24	0	827	846	2
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	0	27	0	919	940	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	1027	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6,275	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3,3475	-	-	-	-
Pot Cap-1 Maneuver	0	279	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	253	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	20,88	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	253	-	-
HCM Lane V/C Ratio	-	0,105	-	-
HCM Ctrl Dly (s/v)	-	20,9	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0,3	-	-

Intersection	
Int Delay, s/veh	3,5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	62	65	59	263	507	82
Future Vol, veh/h	62	65	59	263	507	82
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	69	72	66	292	563	91

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1032	609	654	0	-	0
Stage 1	609	-	-	-	-	-
Stage 2	423	-	-	-	-	-
Critical Hdwy	6,4	6,2	4,1	-	-	-
Critical Hdwy Stg 1	5,4	-	-	-	-	-
Critical Hdwy Stg 2	5,4	-	-	-	-	-
Follow-up Hdwy	3,5	3,3	2,2	-	-	-
Pot Cap-1 Maneuver	260	499	942	-	-	-
Stage 1	547	-	-	-	-	-
Stage 2	665	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	238	499	942	-	-	-
Mov Cap-2 Maneuver	238	-	-	-	-	-
Stage 1	501	-	-	-	-	-
Stage 2	665	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	24,27	1,67	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	330	-	325	-	-
HCM Lane V/C Ratio	0,07	-	0,434	-	-
HCM Ctrl Dly (s/v)	9,1	0	24,3	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0,2	-	2,1	-	-

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	84	566	9	1	650
Future Vol, veh/h	5	84	566	9	1	650
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	15	6	0	0	5
Mvmt Flow	6	93	629	10	1	722

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1097	419	0	0	739	0
Stage 1	734	-	-	-	-	-
Stage 2	363	-	-	-	-	-
Critical Hdwy	6,8	7,2	-	-	4,1	-
Critical Hdwy Stg 1	5,8	-	-	-	-	-
Critical Hdwy Stg 2	5,8	-	-	-	-	-
Follow-up Hdwy	3,5	3,45	-	-	2,2	-
Pot Cap-1 Maneuver	211	548	-	-	877	-
Stage 1	441	-	-	-	-	-
Stage 2	680	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	188	490	-	-	784	-
Mov Cap-2 Maneuver	188	-	-	-	-	-
Stage 1	394	-	-	-	-	-
Stage 2	679	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	14,07	0	0,01
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	490	784	-
HCM Lane V/C Ratio	-	-	0,191	0,001	-
HCM Ctrl Dly (s/v)	-	-	14,1	9,6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0,7	0	-

Intersection	
Int Delay, s/veh	2,4

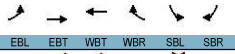
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	133	163	5	146	64	6
Future Vol, veh/h	133	163	5	146	64	6
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	148	181	6	162	71	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	429	0	612	438
Stage 1	-	-	-	-	338	-
Stage 2	-	-	-	-	273	-
Critical Hdwy	-	-	4,12	-	6,42	6,22
Critical Hdwy Stg 1	-	-	-	-	5,42	-
Critical Hdwy Stg 2	-	-	-	-	5,42	-
Follow-up Hdwy	-	-	2,218	-	3,518	3,318
Pot Cap-1 Maneuver	-	-	1131	-	457	618
Stage 1	-	-	-	-	722	-
Stage 2	-	-	-	-	773	-
Platoon blocked, %	-	-			-	
Mov Cap-1 Maneuver	-	-	1011	-	363	494
Mov Cap-2 Maneuver	-	-	-	-	363	-
Stage 1	-	-	-	-	646	-
Stage 2	-	-	-	-	687	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0,28	17,24
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	371	-	-	60	-
HCM Lane V/C Ratio	0,209	-	-	0,005	-
HCM Ctrl Dly (s/v)	17,2	-	-	8,6	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0,8	-	-	0	-

2033 TOTAL – MINOR EVENT INGRESS



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	236	0	0	0	0	124
Future Volume (vph)	236	0	0	0	0	124
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.865	
Flt Protected		0.950				
Satd. Flow (prot)	0	1602	1686	0	1459	0
Flt Permitted		0.950				
Satd. Flow (perm)	0	1602	1686	0	1459	0
Confl. Peds. (#/hr)	100			100	100	100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	262	0	0	0	0	138
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	262	0	0	138	0
Enter Blocked Intersection	Yes	Yes	Yes	Yes	Yes	Yes
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.2	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		1.6	1.6		1.6	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (k/h)	24			14	24	14
Sign Control		Stop	Stop		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 41.2%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	12	11	83	83	118	118
Future Volume (vph)	12	11	83	83	118	118
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.935				0.932	
Flt Protected				0.976	0.976	
Satd. Flow (prot)	1577	0	0	1646	1534	0
Flt Permitted				0.976	0.976	
Satd. Flow (perm)	1577	0	0	1646	1534	0
Confl. Peds. (#/hr)		100	100		100	100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	13	12	92	92	131	131
Shared Lane Traffic (%)						
Lane Group Flow (vph)	25	0	0	184	262	0
Enter Blocked Intersection	Yes	Yes	Yes	Yes	Yes	Yes
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.2	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (k/h)		14	24		24	14
Sign Control	Stop			Stop	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 40.3%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	36	0	0	166	0	0
Future Volume (vph)	36	0	0	166	0	0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt						
Flt Protected						
Satd. Flow (prot)	1686	0	0	1686	1686	0
Flt Permitted						
Satd. Flow (perm)	1686	0	0	1686	1686	0
Confl. Peds. (#/hr)		100	100		100	100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	40	0	0	184	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	40	0	0	184	0	0
Enter Blocked Intersection	Yes	Yes	Yes	Yes	Yes	Yes
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.2	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	1.6			1.6	1.6	
Two way Left Turn Lane						
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (k/h)		14	24		24	14
Sign Control	Stop			Stop	Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 32.6%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	53	0	0	0	143	65	43	41	0	0	85
Future Volume (vph)	62	53	0	0	0	143	65	43	41	0	0	85
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.865		0.963				0.865
Flt Protected		0.974						0.979				
Satd. Flow (prot)	0	1642	0	0	0	1459	0	1590	0	0	0	1459
Flt Permitted		0.974						0.979				
Satd. Flow (perm)	0	1642	0	0	0	1459	0	1590	0	0	0	1459
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	69	59	0	0	0	159	72	48	46	0	0	94
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	128	0	0	0	159	0	166	0	0	0	94
Enter Blocked Intersection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
Turning Speed (k/h)	97		14	24		97	24		14	97		97
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 34.7%		ICU Level of Service A	
Analysis Period (min) 15			

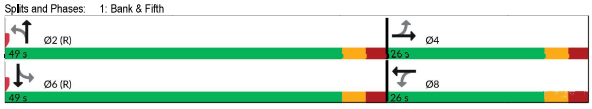
1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	53	59	69	48	17	516	26	605
Future Volume (vph)	53	59	69	48	17	516	26	605
Lane Group Flow (vph)	0	163	77	125	0	625	0	728
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		13.7	13.7	13.7		50.3		50.3
Actuated g/C Ratio		0.18	0.18	0.18		0.67		0.67
v/c Ratio		0.67	0.43	0.40		0.33		0.38
Control Delay (s/veh)		37.3	33.0	15.8		6.0		6.9
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		37.3	33.0	15.8		6.0		6.9
LOS		D	C	B		A		A
Approach Delay (s/veh)		37.3		22.4		6.0		6.9
Approach LOS		D		C		A		A
Queue Length 50th (m)		18.9	9.8	6.4		15.1		20.2
Queue Length 95th (m)		33.9	19.6	18.1		28.4		38.4
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		355	265	427		1900		1898
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.46	0.29	0.29		0.33		0.38

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay (s/veh): 11.3 — Intersection LOS: B
Intersection Capacity Utilization 64.5% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth



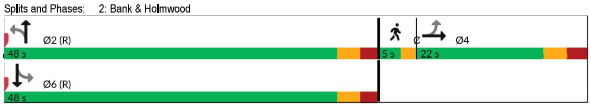
2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	26	53	522	30	586	
Future Volume (vph)	26	53	522	30	586	
Lane Group Flow (vph)	119	0	730	0	723	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	11.6		56.0		56.0	
Actuated g/C Ratio	0.15		0.75		0.75	
v/c Ratio	0.55		0.40		0.35	
Control Delay (s/veh)	38.2		5.5		3.1	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.2		5.5		3.1	
LOS	D		A		A	
Approach Delay (s/veh)	38.2		5.5		3.1	
Approach LOS	D		A		A	
Queue Length 50th (m)	15.8		17.8		12.5	
Queue Length 95th (m)	28.8		34.2		16.1	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	304		1830		2073	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.39		0.40		0.35	

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay (s/veh): 6.9 — Intersection LOS: A
Intersection Capacity Utilization 69.3% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood



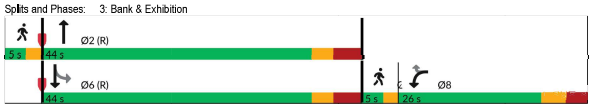
3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	132	93	440	187	434		
Future Volume (vph)	132	93	440	187	434		
Lane Group Flow (vph)	147	103	719	208	482		
Turn Type	Prot	Perm	NA	Perm	NA		
Protected Phases	8		2		6	1	7
Permitted Phases		8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (%)	32.5%	32.5%	55.0%	55.0%	55.0%	6%	6%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	12.9	12.9	53.9	53.9	53.9		
Actuated g/C Ratio	0.16	0.16	0.67	0.67	0.67		
v/c Ratio	0.56	0.39	0.38	0.54	0.23		
Control Delay (s/veh)	38.6	10.7	5.6	14.1	5.7		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	38.6	10.7	5.6	14.1	5.7		
LOS	D	B	A	B	A		
Approach Delay (s/veh)	27.1		5.6		8.3		
Approach LOS	C		A		A		
Queue Length 50th (m)	21.0	0.0	16.4	13.5	12.4		
Queue Length 95th (m)	35.8	11.9	30.8	40.0	22.5		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	402	349	1887	388	2136		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.37	0.30	0.38	0.54	0.23		

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay (s/veh): 10.0 — Intersection LOS: A
Intersection Capacity Utilization 65.6% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition



6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	74	19	725	535	
Future Volume (vph)	74	19	725	535	
Lane Group Flow (vph)	90	0	827	680	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.1		60.2	60.2	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.36		0.42	0.34	
Control Delay (s/veh)	36.7		5.4	6.6	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	36.7		5.4	6.6	
LOS	D		A	A	
Approach Delay (s/veh)	36.7		5.4	6.6	
Approach LOS	D		A	A	
Queue Length 50th (m)	13.3		21.2	21.7	
Queue Length 95th (m)	27.1		25.3	31.0	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	289		1983	1978	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.31		0.42	0.34	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.42
Intersection Signal Delay (s/veh): 7.7 — Intersection LOS: A
Intersection Capacity Utilization 56.1% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	58	53	18	60	20	505	109	565		
Future Volume (vph)	58	53	18	60	20	505	109	565		
Lane Group Flow (vph)	0	153	0	273	0	603	0	825		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	60.0	5.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	43.0	5.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%	47.8%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		21.7		21.7		56.7		56.7		
Actuated g/C Ratio		0.24		0.24		0.63		0.63		
v/c Ratio		0.69		0.76		0.34		0.60		
Control Delay (s/veh)		47.4		32.9		8.9		8.8		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		47.4		32.9		8.9		8.8		
LOS		D		C		A		A		
Approach Delay (s/veh)		47.4		32.9		8.9		8.8		
Approach LOS		D		C		A		A		
Queue Length 50th (m)		23.1		25.3		25.3		44.5		
Queue Length 95th (m)		#45.4		#59.8		35.2		63.9		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		231		370		1783		1379		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.66		0.74		0.34		0.60		

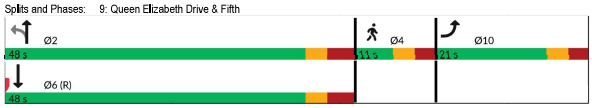
Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay (s/veh): 15.6		Intersection LOS: B	
Intersection Capacity Utilization 82.4%		ICU Level of Service E	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	56	54	232	546	
Future Volume (vph)	56	54	232	546	
Lane Group Flow (vph)	104	0	318	706	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	11.6		55.9	55.9	
Actuated g/C Ratio	0.15		0.70	0.70	
v/c Ratio	0.46		0.34	0.61	
Control Delay (s/veh)	37.9		6.3	9.7	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	37.9		6.3	9.7	
LOS	D		A	A	
Approach Delay (s/veh)	37.9		6.3	9.7	
Approach LOS	D		A	A	
Queue Length 50th (m)	14.9		15.1	44.8	
Queue Length 95th (m)	27.8		32.0	89.7	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	295		947	1154	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.35		0.34	0.61	

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay (s/veh): 11.3		Intersection LOS: B	
Intersection Capacity Utilization 76.5%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 9: Queen Elizabeth Drive & Fifth



Intersection						
Int Delay, s/veh	14.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	275	147	686	500	56
Future Vol, veh/h	5	275	147	686	500	56
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	6	306	163	762	556	62

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1472	765	796	0	-	0
Stage 1	765	-	-	-	-	-
Stage 2	708	-	-	-	-	-
Critical Hdwy	6.645	6.245	4.145	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	2.2285	-	-	-
Pot Cap-1 Maneuver	127	400	818	-	-	-
Stage 1	456	-	-	-	-	-
Stage 2	448	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	58	325	664	-	-	-
Mov Cap-2 Maneuver	58	-	-	-	-	-
Stage 1	255	-	-	-	-	-
Stage 2	364	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	72.41	4.34	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	524	-	325	-	-
HCM Lane V/C Ratio	0.246	-	0.94	-	-
HCM Ctrl Dly (s/v)	12.2	2.7	72.4	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	1	-	9.6	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	38	0	817	783	0
Future Vol, veh/h	4	38	0	817	783	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	4	42	0	908	870	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1324	870	-	0	-	0
Stage 1	870	-	-	-	-	-
Stage 2	454	-	-	-	-	-
Critical Hdwy	6.645	6.245	-	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	-	-	-	-
Pot Cap-1 Maneuver	158	348	0	-	-	0
Stage 1	407	-	0	-	-	0
Stage 2	605	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	158	348	-	-	-	-
Mov Cap-2 Maneuver	158	-	-	-	-	-
Stage 1	407	-	-	-	-	-
Stage 2	605	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	16.77	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	348	-
HCM Lane V/C Ratio	-	0.121	-
HCM Ctrl Dly (s/v)	-	16.8	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	0.4	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	66	60	122	223	334	257
Future Vol, veh/h	66	60	122	223	334	257
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	73	67	136	248	371	286

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1033	514	657	0	-	0
Stage 1	514	-	-	-	-	-
Stage 2	519	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	260	565	940	-	-	-
Stage 1	605	-	-	-	-	-
Stage 2	601	-	-	-	-	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	216	565	940	-	-	-
Mov Cap-2 Maneuver	216	-	-	-	-	-
Stage 1	504	-	-	-	-	-
Stage 2	601	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	26.26	3.35	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	637	-	306	-	-
HCM Lane V/C Ratio	0.144	-	0.457	-	-
HCM Ctrl Dly (s/v)	9.5	0	26.3	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.5	-	2.3	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	61	533	20	2	604
Future Vol, veh/h	0	61	533	20	2	604
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	2	2
Mvmt Flow	0	68	592	22	2	671

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	407	0	0	714	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	2.22	-
Pot Cap-1 Maneuver	0	599	-	-	882	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	536	-	-	788	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12.69	0	0.03
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	536	788	-
HCM Lane V/C Ratio	-	-	0.127	0.003	-
HCM Ctrl Dly (s/v)	-	-	12.7	9.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	231	163	5	119	106	6
Future Vol, veh/h	231	163	5	119	106	6
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	257	181	6	132	118	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	538	0	691	547
Stage 1	-	-	-	-	447	-
Stage 2	-	-	-	-	243	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1030	-	411	537
Stage 1	-	-	-	-	644	-
Stage 2	-	-	-	-	797	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	921	-	326	429
Mov Cap-2 Maneuver	-	-	-	-	326	-
Stage 1	-	-	-	-	576	-
Stage 2	-	-	-	-	708	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.36	22.33
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	330	-	-	73	-
HCM Lane V/C Ratio	0.377	-	-	0.006	-
HCM Ctrl Dly (s/v)	22.3	-	-	8.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.7	-	-	0	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	32	161	218	93	5
Future Vol, veh/h	5	32	161	218	93	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	36	179	242	103	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	421	0	-	0	347	300
Stage 1	-	-	-	-	300	-
Stage 2	-	-	-	-	47	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1138	-	-	-	650	740
Stage 1	-	-	-	-	752	-
Stage 2	-	-	-	-	976	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1138	-	-	-	647	740
Mov Cap-2 Maneuver	-	-	-	-	647	-
Stage 1	-	-	-	-	748	-
Stage 2	-	-	-	-	976	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.11	0	11.64
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	243	-	-	-	651
HCM Lane V/C Ratio	0.005	-	-	-	0.167
HCM Ctrl Dly (s/v)	8.2	0	-	-	11.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.6

2033 TOTAL – MINOR EVENT EGRESS

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	204	0	0	0	0	282
Future Vol, veh/h	204	0	0	0	0	282
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	227	0	0	0	0	313
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	9.9	0	8.9
HCM LOS	A	-	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	0%
Vol Thru, %	0%	100%	0%
Vol Right, %	0%	0%	100%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	204	0	282
LT Vol	204	0	0
Through Vol	0	0	0
RT Vol	0	0	282
Lane Flow Rate	227	0	313
Geometry Grp	1	1	1
Degree of Util (X)	0.302	0	0.34
Departure Headway (Hd)	4.804	4.86	3.911
Convergence, Y/N	Yes	Yes	Yes
Cap	753	0	921
Service Time	2.804	2.9	1.925
HCM Lane V/C Ratio	0.301	0	0.34
HCM Control Delay, s/veh	9.9	7.9	8.9
HCM Lane LOS	A	N	A
HCM 95th-tile Q	1.3	0	1.5

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	16	15	41	42	102	102
Future Vol, veh/h	16	15	41	42	102	102
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	17	46	47	113	113
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.4	8.2	8.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	50%	0%	49%
Vol Thru, %	0%	52%	51%
Vol Right, %	50%	48%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	204	31	83
LT Vol	102	0	41
Through Vol	0	16	42
RT Vol	102	15	0
Lane Flow Rate	227	34	92
Geometry Grp	1	1	1
Degree of Util (X)	0.249	0.041	0.117
Departure Headway (Hd)	3.953	4.24	4.561
Convergence, Y/N	Yes	Yes	Yes
Cap	895	849	790
Service Time	2.039	2.243	2.563
HCM Lane V/C Ratio	0.254	0.04	0.116
HCM Control Delay, s/veh	8.4	7.4	8.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1	0.1	0.4

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	75	0	0	83	0	0
Future Vol, veh/h	75	0	0	83	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	83	0	0	92	0	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.4	7.5	0
HCM LOS	A	A	-

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	0%	0%	0%
Vol Thru, %	100%	100%	100%
Vol Right, %	0%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	0	75	83
LT Vol	0	0	0
Through Vol	0	75	83
RT Vol	0	0	0
Lane Flow Rate	0	83	92
Geometry Grp	1	1	1
Degree of Util (X)	0	0.093	0.102
Departure Headway (Hd)	4.235	4.002	3.996
Convergence, Y/N	Yes	Yes	Yes
Cap	0	897	899
Service Time	2.308	2.019	2.011
HCM Lane V/C Ratio	0	0.093	0.102
HCM Control Delay, s/veh	7.3	7.4	7.5
HCM Lane LOS	N	A	A
HCM 95th-tile Q	0	0.3	0.3

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	45	0	0	0	68	14	11	53	0	0	99
Future Vol, veh/h	11	45	0	0	0	68	14	11	53	0	0	99
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	50	0	0	0	76	16	12	59	0	0	110
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.8	7.1	7.4	7.2
HCM LOS	A	A	A	A

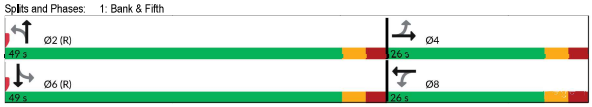
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	18%	20%	0%	0%
Vol Thru, %	14%	80%	0%	0%
Vol Right, %	68%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	78	56	68	99
LT Vol	14	11	0	0
Through Vol	11	45	0	0
RT Vol	53	0	68	99
Lane Flow Rate	87	62	76	110
Geometry Grp	1	1	1	1
Degree of Util (X)	0.094	0.076	0.078	0.111
Departure Headway (Hd)	3.885	4.373	3.72	3.637
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	911	811	949	970
Service Time	1.959	2.441	1.797	1.715
HCM Lane V/C Ratio	0.095	0.076	0.08	0.113
HCM Control Delay, s/veh	7.4	7.8	7.1	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.2	0.3	0.4

1: Bank & Fifth

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	43	10	50	25	17	477	21	384
Future Volume (vph)	43	10	50	25	17	477	21	384
Lane Group Flow (vph)	0	88	56	68	0	562	0	474
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		9.6	9.6	9.6		57.7		57.7
Actuated g/C Ratio		0.13	0.13	0.13		0.77		0.77
v/c Ratio		0.52	0.36	0.33		0.25		0.22
Control Delay (s/veh)		32.1	35.0	19.0		3.6		3.8
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		32.1	35.0	19.0		3.6		3.8
LOS		C	C	B		A		A
Approach Delay (s/veh)		32.1		26.2		3.6		3.8
Approach LOS		C		C		A		A
Queue Length 50th (m)		7.9	7.4	3.6		10.0		8.7
Queue Length 95th (m)		19.6	16.3	13.2		19.7		17.8
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		330	335	402		2237		2167
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.27	0.17	0.17		0.25		0.22

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.52
Intersection Signal Delay (s/veh): 7.9 Intersection LOS: A
Intersection Capacity Utilization 53.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: Bank & Fifth

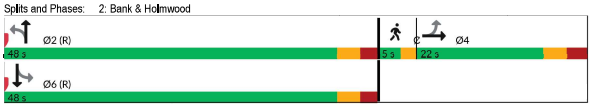


2: Bank & Holmwood

Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	7	55	464	28	359	
Future Volume (vph)	7	55	464	28	359	
Lane Group Flow (vph)	88	0	610	0	471	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	10.2		57.3		57.3	
Actuated g/C Ratio	0.14		0.76		0.76	
v/c Ratio	0.48		0.31		0.23	
Control Delay (s/veh)	37.9		4.4		2.8	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	37.9		4.4		2.8	
LOS	D		A		A	
Approach Delay (s/veh)	37.9		4.4		2.8	
Approach LOS	D		A		A	
Queue Length 50th (m)	11.7		12.8		8.4	
Queue Length 95th (m)	23.3		24.5		12.0	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	295		1994		2066	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.30		0.31		0.23	

Intersection Summary
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay (s/veh): 6.3 Intersection LOS: A
Intersection Capacity Utilization 58.4% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Bank & Holmwood

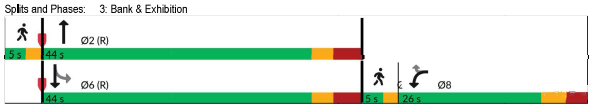


3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	201	220	202	133	267		
Future Volume (vph)	201	220	202	133	267		
Lane Group Flow (vph)	223	244	336	148	297		
Turn Type	Prot	Perm	NA	Perm	NA		
Protected Phases	8		2		6	1	7
Permitted Phases		8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (%)	32.5%	32.5%	55.0%	55.0%	55.0%	6%	6%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	16.0	16.0	50.8	50.8	50.8		
Actuated g/C Ratio	0.20	0.20	0.64	0.64	0.64		
v/c Ratio	0.68	0.59	0.19	0.31	0.15		
Control Delay (s/veh)	39.9	9.8	4.9	10.1	6.8		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	39.9	9.8	4.9	10.1	6.8		
LOS	D	A	A	B	A		
Approach Delay (s/veh)	24.2		4.9		7.9		
Approach LOS	C		A		A		
Queue Length 50th (m)	31.6	0.0	6.3	9.1	8.5		
Queue Length 95th (m)	49.0	17.1	13.8	23.6	16.4		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	411	460	1769	475	2014		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.54	0.53	0.19	0.31	0.15		

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay (s/veh): 13.2 Intersection LOS: B
Intersection Capacity Utilization 57.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition



6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	4	1	184	206	
Future Volume (vph)	4	1	184	206	
Lane Group Flow (vph)	7	0	205	236	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.0		60.3	60.3	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.03		0.10	0.11	
Control Delay (s/veh)	27.2		4.7	5.3	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	27.2		4.7	5.3	
LOS	C		A	A	
Approach Delay (s/veh)	27.2		4.7	5.3	
Approach LOS	C		A	A	
Queue Length 50th (m)	0.6		5.1	6.5	
Queue Length 95th (m)	4.4		7.7	10.3	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	253		2044	2108	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.03		0.10	0.11	

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.11
Intersection Signal Delay (s/veh): 5.3 Intersection LOS: A
Intersection Capacity Utilization 45.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	30	7	5	13	13	270	35	438		
Future Volume (vph)	30	7	5	13	13	270	35	438		
Lane Group Flow (vph)	0	63	0	58	0	320	0	575		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	60.0	5.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	43.0	5.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%	47.8%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		11.1		10.9		70.9		70.9		
Actuated g/C Ratio		0.12		0.12		0.79		0.79		
v/c Ratio		0.51		0.34		0.14		0.27		
Control Delay (s/veh)		50.3		22.0		3.6		2.6		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		50.3		22.0		3.6		2.6		
LOS		D		C		A		A		
Approach Delay (s/veh)		50.3		22.0		3.6		2.6		
Approach LOS		D		C		A		A		
Queue Length 50th (m)		10.4		3.2		6.5		7.0		
Queue Length 95th (m)		21.5		13.1		13.1		12.7		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		215		275		2285		2111		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.29		0.21		0.14		0.27		

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay (s/veh): 7.0		Intersection LOS: A	
Intersection Capacity Utilization 60.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	69	33	273	169	
Future Volume (vph)	69	33	273	169	
Lane Group Flow (vph)	110	0	340	227	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	11.8		55.7	55.7	
Actuated g/C Ratio	0.15		0.70	0.70	
v/c Ratio	0.48		0.30	0.20	
Control Delay (s/veh)	38.1		5.9	5.1	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	38.1		5.9	5.1	
LOS	D		A	A	
Approach Delay (s/veh)	38.1		5.9	5.1	
Approach LOS	D		A	A	
Queue Length 50th (m)	15.8		15.8	9.7	
Queue Length 95th (m)	28.9		32.4	20.8	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	298		1116	1147	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.37		0.30	0.20	

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay (s/veh): 10.9		Intersection LOS: B	
Intersection Capacity Utilization 53.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 9: Queen Elizabeth Drive & Fifth

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	114	49	312	414	69
Future Vol, veh/h	2	114	49	312	414	69
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2	127	54	347	460	77

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	959	676	715	0	-	0
Stage 1	676	-	-	-	-	-
Stage 2	282	-	-	-	-	-
Critical Hdwy	6.645	6.245	4.145	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	2.2285	-	-	-
Pot Cap-1 Maneuver	268	450	878	-	-	-
Stage 1	502	-	-	-	-	-
Stage 2	739	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	162	365	713	-	-	-
Mov Cap-2 Maneuver	162	-	-	-	-	-
Stage 1	373	-	-	-	-	-
Stage 2	599	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	20	2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	489	-	365	-	-
HCM Lane V/C Ratio	0.078	-	0.347	-	-
HCM Ctrl Dly (s/v)	10.5	0.7	20	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.5	-	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	12	0	393	343	0
Future Vol, veh/h	2	12	0	393	343	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	2	13	0	437	381	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	599	381	-	0	-	0
Stage 1	381	-	-	-	-	-
Stage 2	218	-	-	-	-	-
Critical Hdwy	6.645	6.245	-	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	-	-	-	-
Pot Cap-1 Maneuver	446	663	0	-	-	0
Stage 1	687	-	0	-	-	0
Stage 2	795	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	446	663	-	-	-	-
Mov Cap-2 Maneuver	446	-	-	-	-	-
Stage 1	687	-	-	-	-	-
Stage 2	795	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.55	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	663	-
HCM Lane V/C Ratio	-	0.02	-
HCM Ctrl Dly (s/v)	-	10.5	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Int Delay, s/veh	11,5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	259	174	29	46	128	73
Future Vol, veh/h	259	174	29	46	128	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	288	193	32	51	142	81

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	298	183	223	0	-	0
Stage 1	183	-	-	-	-	-
Stage 2	116	-	-	-	-	-
Critical Hdwy	6,4	6,2	4,1	-	-	-
Critical Hdwy Stg 1	5,4	-	-	-	-	-
Critical Hdwy Stg 2	5,4	-	-	-	-	-
Follow-up Hdwy	3,5	3,3	2,2	-	-	-
Pot Cap-1 Maneuver	697	865	1357	-	-	-
Stage 1	853	-	-	-	-	-
Stage 2	914	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	680	865	1357	-	-	-
Mov Cap-2 Maneuver	680	-	-	-	-	-
Stage 1	833	-	-	-	-	-
Stage 2	914	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	18,25	2,98	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	696	-	744	-	-
HCM Lane V/C Ratio	0,024	-	0,647	-	-
HCM Ctrl Dly (s/v)	7,7	0	18,2	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0,1	-	4,8	-	-

Intersection	
Int Delay, s/veh	2,1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	152	431	30	0	392
Future Vol, veh/h	5	152	431	30	0	392
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	2	2
Mvmt Flow	6	169	479	33	0	436

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	813	356	0	0	-	-
Stage 1	596	-	-	-	-	-
Stage 2	218	-	-	-	-	-
Critical Hdwy	6,8	6,9	-	-	-	-
Critical Hdwy Stg 1	5,8	-	-	-	-	-
Critical Hdwy Stg 2	5,8	-	-	-	-	-
Follow-up Hdwy	3,5	3,3	-	-	-	-
Pot Cap-1 Maneuver	320	646	-	-	0	-
Stage 1	519	-	-	-	0	-
Stage 2	804	-	-	-	0	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	286	578	-	-	-	-
Mov Cap-2 Maneuver	286	-	-	-	-	-
Stage 1	464	-	-	-	-	-
Stage 2	804	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	13,78	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	578	-
HCM Lane V/C Ratio	-	-	0,292	-
HCM Ctrl Dly (s/v)	-	-	13,8	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	1,2	-

Intersection	
Int Delay, s/veh	6,4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	199	35	0	282	139	6
Future Vol, veh/h	199	35	0	282	139	6
Conflicting Peds, #/hr	0	100	100	0	100	100
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	221	39	0	313	154	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	360	0	754	441
Stage 1	-	-	-	-	341	-
Stage 2	-	-	-	-	413	-
Critical Hdwy	-	-	4,12	-	6,42	6,22
Critical Hdwy Stg 1	-	-	-	-	5,42	-
Critical Hdwy Stg 2	-	-	-	-	5,42	-
Follow-up Hdwy	-	-	2,218	-	3,518	3,318
Pot Cap-1 Maneuver	-	-	1199	-	377	617
Stage 1	-	-	-	-	720	-
Stage 2	-	-	-	-	668	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1072	-	301	493
Mov Cap-2 Maneuver	-	-	-	-	301	-
Stage 1	-	-	-	-	644	-
Stage 2	-	-	-	-	597	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0	29,08
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	306	-	-	1072	-
HCM Lane V/C Ratio	0,526	-	-	-	-
HCM Ctrl Dly (s/v)	29,1	-	-	0	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	2,9	-	-	0	-

Intersection	
Int Delay, s/veh	9,3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	75	78	24	357	5
Future Vol, veh/h	1	75	78	24	357	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	83	87	27	397	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	113	0	-	0	186	100
Stage 1	-	-	-	-	100	-
Stage 2	-	-	-	-	86	-
Critical Hdwy	4,12	-	-	-	6,42	6,22
Critical Hdwy Stg 1	-	-	-	-	5,42	-
Critical Hdwy Stg 2	-	-	-	-	5,42	-
Follow-up Hdwy	2,218	-	-	-	3,518	3,318
Pot Cap-1 Maneuver	1476	-	-	-	804	956
Stage 1	-	-	-	-	924	-
Stage 2	-	-	-	-	938	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1476	-	-	-	803	956
Mov Cap-2 Maneuver	-	-	-	-	803	-
Stage 1	-	-	-	-	923	-
Stage 2	-	-	-	-	938	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0,1	0	13,86
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	24	-	-	-	805
HCM Lane V/C Ratio	0,001	-	-	-	0,5
HCM Ctrl Dly (s/v)	7,4	0	-	-	13,9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	2,8

2033 TOTAL – MAJOR EVENT INGRESS

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	70	59	0	0	0	203	61	61	97	0	0	134
Future Vol, veh/h	70	59	0	0	0	203	61	61	97	0	0	134
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	78	66	0	0	0	226	68	68	108	0	0	149
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

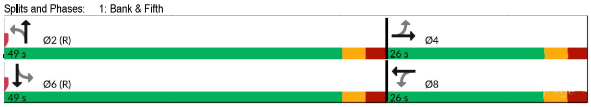
Approach	EB				WB	NB						SB
Opposing Approach	WB				EB	SB						NB
Opposing Lanes	1				1	1						1
Conflicting Approach Left	SB				NB	EB						WB
Conflicting Lanes Left	1				1	1						1
Conflicting Approach Right	NB				SB	WB						EB
Conflicting Lanes Right	1				1	1						1
HCM Control Delay, s/veh	9.7				9.2	10.1						8.6
HCM LOS	A				A	B						A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	28%	54%	0%	0%
Vol Thru, %	28%	46%	0%	0%
Vol Right, %	44%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	219	129	203	134
LT Vol	61	70	0	0
Through Vol	61	59	0	0
RT Vol	97	0	203	134
Lane Flow Rate	243	143	226	149
Geometry Grp	1	1	1	1
Degree of Util (X)	0.322	0.208	0.278	0.186
Departure Headway (Hd)	4.761	5.22	4.436	4.508
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	747	681	801	786
Service Time	2.839	3.308	2.513	2.594
HCM Lane V/C Ratio	0.325	0.21	0.282	0.19
HCM Control Delay, s/veh	10.1	9.7	9.2	8.6
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	1.4	0.8	1.1	0.7

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	63	56	75	64	24	491	33	655
Future Volume (vph)	63	56	75	64	24	491	33	655
Lane Group Flow (vph)	0	174	83	139	0	615	0	833
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		14.4	14.4	14.4		49.6		49.6
Actuated g/C Ratio		0.19	0.19	0.19		0.66		0.66
v/c Ratio		0.70	0.45	0.43		0.34		0.46
Control Delay (s/veh)		38.9	32.9	18.3		7.5		7.8
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		38.9	32.9	18.3		7.5		7.8
LOS		D	C	B		A		A
Approach Delay (s/veh)		38.9		23.8		7.5		7.8
Approach LOS		D		C		A		A
Queue Length 50th (m)		20.2	10.4	9.2		15.1		25.3
Queue Length 95th (m)		36.3	20.9	21.8		36.9		46.8
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		345	263	432		1804		1814
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.50	0.32	0.32		0.34		0.46

Intersection Summary			
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay (s/veh): 12.6		Intersection LOS: B	
Intersection Capacity Utilization 89.8%		ICU Level of Service E	
Analysis Period (min) 15			

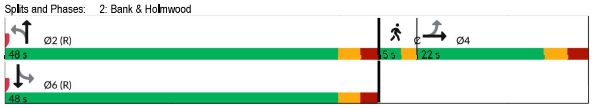
Splits and Phases: 1: Bank & Fifth



Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	39	71	518	59	605	
Future Volume (vph)	39	71	518	59	605	
Lane Group Flow (vph)	157	0	793	0	796	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag					Lead
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	13.5		50.7		50.7	
Actuated g/C Ratio	0.18		0.68		0.68	
v/c Ratio	0.62		0.52		0.47	
Control Delay (s/veh)	38.5		7.9		4.3	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.5		7.9		4.3	
LOS	D		A		A	
Approach Delay (s/veh)	38.5		7.9		4.3	
Approach LOS	D		A		A	
Queue Length 50th (m)	20.7		22.9		14.1	
Queue Length 95th (m)	35.3		45.4		18.2	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	316		1512		1695	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.50		0.52		0.47	

Intersection Summary			
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay (s/veh): 9.0		Intersection LOS: A	
Intersection Capacity Utilization 75.6%		ICU Level of Service D	
Analysis Period (min) 15			

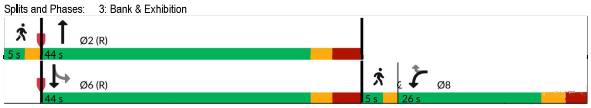
Splits and Phases: 2: Bank & Holmwood



Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	61	44	655	66	595		
Future Volume (vph)	61	44	655	66	595		
Lane Group Flow (vph)	68	49	819	73	661		
Turn Type	Prot	Perm	NA	Perm	NA		
Protected Phases	8		2		6	1	7
Permitted Phases		8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (%)	32.5%	32.5%	55.0%	55.0%	55.0%	6%	6%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	10.4	10.4	61.0	61.0	61.0		
Actuated g/C Ratio	0.13	0.13	0.76	0.76	0.76		
v/c Ratio	0.32	0.26	0.35	0.18	0.27		
Control Delay (s/veh)	35.8	13.6	4.7	5.5	4.3		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	35.8	13.6	4.7	5.5	4.3		
LOS	D	B	A	A	A		
Approach Delay (s/veh)	26.5		4.7		4.4		
Approach LOS	C		A		A		
Queue Length 50th (m)	9.6	0.0	20.6	3.1	16.0		
Queue Length 95th (m)	20.5	8.9	32.1	8.5	24.9		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	402	309	2323	407	2420		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.17	0.16	0.35	0.18	0.27		

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.35			
Intersection Signal Delay (s/veh): 6.1		Intersection LOS: A	
Intersection Capacity Utilization 63.6%		ICU Level of Service B	
Analysis Period (min) 15			

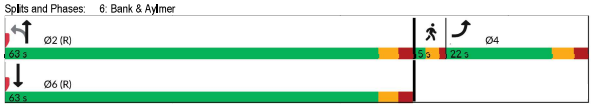
Splits and Phases: 3: Bank & Exhibition



Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	93	14	772	799	
Future Volume (vph)	93	14	772	799	
Lane Group Flow (vph)	131	0	874	946	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.6		59.7	59.7	
Actuated g/C Ratio	0.16		0.66	0.66	
v/c Ratio	0.52		0.44	0.46	
Control Delay (s/veh)	38.8		5.7	8.2	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	38.8		5.7	8.2	
LOS	D		A	A	
Approach Delay (s/veh)	38.8		5.7	8.2	
Approach LOS	D		A	A	
Queue Length 50th (m)	19.0		22.3	35.3	
Queue Length 95th (m)	35.4		27.0	51.7	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	283		1973	2044	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.46		0.44	0.46	

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.52
Intersection Signal Delay (s/veh): 9.2 Intersection LOS: A
Intersection Capacity Utilization 53.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	54	80	14	86	27	555	143	651		
Future Volume (vph)	54	80	14	86	27	555	143	651		
Lane Group Flow (vph)	0	191	0	291	0	679	0	978		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	60.0	5.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	43.0	5.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%	47.8%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		24.4		24.4		54.0		54.0		
Actuated g/C Ratio		0.27		0.27		0.60		0.60		
v/c Ratio		0.66		0.75		0.42		0.81		
Control Delay (s/veh)		42.0		35.6		10.5		15.3		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		42.0		35.6		10.5		15.3		
LOS		D		D		B		B		
Approach Delay (s/veh)		42.0		35.6		10.5		15.3		
Approach LOS		D		D		B		B		
Queue Length 50th (m)		29.3		33.5		29.8		67.0		
Queue Length 95th (m)		#57.3		#71.9		41.2		98.7		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		288		386		1627		1204		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.66		0.75		0.42		0.81		

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay (s/veh): 18.9 Intersection LOS: B
Intersection Capacity Utilization 92.2% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 7: Bank & Sunnyside

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	97	73	272	662	
Future Volume (vph)	97	73	272	662	
Lane Group Flow (vph)	210	0	383	880	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	16.3		51.2	51.2	
Actuated g/C Ratio	0.20		0.64	0.64	
v/c Ratio	0.67		0.64	0.83	
Control Delay (s/veh)	39.8		16.7	21.9	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	39.8		16.7	21.9	
LOS	D		B	C	
Approach Delay (s/veh)	39.8		16.7	21.9	
Approach LOS	D		B	C	
Queue Length 50th (m)	29.6		31.6	91.7	
Queue Length 95th (m)	47.0		#77.5	#197.1	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	336		597	1055	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.63		0.64	0.83	

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay (s/veh): 23.1 Intersection LOS: C
Intersection Capacity Utilization 92.2% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Queen Elizabeth Drive & Fifth

Intersection	
Int Delay, s/veh	20.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	281	110	759	559	109
Future Vol, veh/h	5	281	110	759	559	109
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	6	312	122	843	621	121

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1526	860	920	0	-	0
Stage 1	860	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Critical Hdwy	6.645	6.245	4.145	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	2.2285	-	-	-
Pot Cap-1 Maneuver	118	353	734	-	-	-
Stage 1	411	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	57	~ 286	596	-	-	-
Mov Cap-2 Maneuver	57	-	-	-	-	-
Stage 1	244	-	-	-	-	-
Stage 2	382	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	118.96	3.88	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	456	-	286	-	-
HCM Lane V/C Ratio	0.205	-	1.09	-	-
HCM Ctrl Dly (s/v)	12.6	2.6	119	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.8	-	12.6	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	76	0	846	811	0
Future Vol, veh/h	1	76	0	846	811	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1	84	0	940	901	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1371	901	-	0	-	0
Stage 1	901	-	-	-	-	-
Stage 2	470	-	-	-	-	-
Critical Hdwy	6.645	6.245	-	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	-	-	-	-
Pot Cap-1 Maneuver	148	334	0	-	-	0
Stage 1	393	-	0	-	-	0
Stage 2	594	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	148	334	-	-	-	-
Mov Cap-2 Maneuver	148	-	-	-	-	-
Stage 1	393	-	-	-	-	-
Stage 2	594	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	19.39	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	334	-
HCM Lane V/C Ratio	-	0.253	-
HCM Ctrl Dly (s/v)	-	19.4	-
HCM Lane LOS	-	C	-
HCM 95th %tile Q(veh)	-	1	-

Intersection	
Int Delay, s/veh	14

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	102	105	117	245	466	268
Future Vol, veh/h	102	105	117	245	466	268
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	113	117	130	272	518	298

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1199	667	816	0	-	0
Stage 1	667	-	-	-	-	-
Stage 2	532	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	207	463	821	-	-	-
Stage 1	514	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	168	463	821	-	-	-
Mov Cap-2 Maneuver	168	-	-	-	-	-
Stage 1	418	-	-	-	-	-
Stage 2	593	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	82.39	3.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	582	-	248	-	-
HCM Lane V/C Ratio	0.158	-	0.926	-	-
HCM Ctrl Dly (s/v)	10.2	0	82.4	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.6	-	8.2	-	-

Intersection	
Int Delay, s/veh	0,1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	8	698	1	0	662
Future Vol, veh/h	0	8	698	1	0	662
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	2	2
Mvmt Flow	0	9	776	1	0	736

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	488	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6,9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3,3	-	-	-	-
Pot Cap-1 Maneuver	0	531	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	475	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12,73	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	475	-
HCM Lane V/C Ratio	-	-	0,019	-
HCM Ctrl Dly (s/v)	-	-	12,7	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0,1	-

2033 TOTAL – MAJOR EVENT EGRESS

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	54	0	0	0	115	116	102	143	0	0	56
Future Vol, veh/h	25	54	0	0	0	115	116	102	143	0	0	56
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	60	0	0	0	128	129	113	159	0	0	62
Number of Lanes	0	1	0	0	0	1	0	1	0	0	0	1

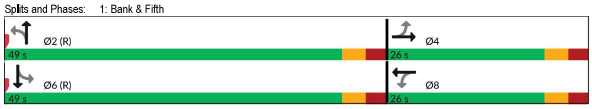
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	9	8.4	11.4	7.7
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	32%	32%	0%	0%
Vol Thru, %	28%	68%	0%	0%
Vol Right, %	40%	0%	100%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	361	79	115	56
LT Vol	116	25	0	0
Through Vol	102	54	0	0
RT Vol	143	0	115	56
Lane Flow Rate	401	88	128	62
Geometry Grp	1	1	1	1
Degree of Util (X)	0.484	0.127	0.159	0.074
Departure Headway (Hd)	4.342	5.19	4.488	4.294
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	826	688	795	829
Service Time	2.379	3.244	2.538	2.348
HCM Lane V/C Ratio	0.485	0.128	0.161	0.075
HCM Control Delay, s/veh	11.4	9	8.4	7.7
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	2.7	0.4	0.6	0.2

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	78	34	41	72	22	333	20	373
Future Volume (vph)	78	34	41	72	22	333	20	373
Lane Group Flow (vph)	0	155	46	209	0	422	0	480
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (s)	26.0	26.0	26.0	26.0	49.0	49.0	49.0	49.0
Total Split (%)	34.7%	34.7%	34.7%	34.7%	65.3%	65.3%	65.3%	65.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		15.0	15.0	15.0		49.0		49.0
Actuated g/C Ratio		0.20	0.20	0.20		0.65		0.65
v/c Ratio		0.80	0.22	0.59		0.23		0.26
Control Delay (s/veh)		54.1	25.5	19.6		5.3		6.4
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay (s/veh)		54.1	25.5	19.6		5.3		6.4
LOS		D	C	B		A		A
Approach Delay (s/veh)		54.1		20.7		5.3		6.4
Approach LOS		D		C		A		A
Queue Length 50th (m)		18.7	5.4	12.4		9.3		12.5
Queue Length 95th (m)		#39.7	12.7	29.6		17.4		23.3
Internal Link Dist (m)		49.7		112.4		195.6		190.0
Turn Bay Length (m)			45.0					
Base Capacity (vph)		257	285	447		1809		1820
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.60	0.16	0.47		0.23		0.26

Intersection Summary			
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 47 (63%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay (s/veh): 14.4		Intersection LOS: B	
Intersection Capacity Utilization 73.6%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

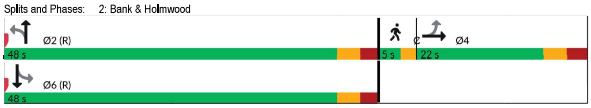
Splits and Phases: 1: Bank & Fifth



Lane Group	EBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations						
Traffic Volume (vph)	22	52	281	33	297	
Future Volume (vph)	22	52	281	33	297	
Lane Group Flow (vph)	151	0	437	0	438	
Turn Type	NA	Perm	NA	Perm	NA	
Protected Phases	4		2		6	3
Permitted Phases		2		6		
Detector Phase	4	2	2	6	6	
Switch Phase						
Minimum Initial (s)	4.4	10.0	10.0	4.0	4.0	1.0
Minimum Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (s)	22.0	48.0	48.0	48.0	48.0	5.0
Total Split (%)	29.3%	64.0%	64.0%	64.0%	64.0%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	2.0
All-Red Time (s)	2.6	2.2	2.2	2.2	2.2	0.0
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	5.6		5.2		5.2	
Lead/Lag	Lag				Lead	
Lead-Lag Optimize?						
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None
Act Effct Green (s)	13.5		50.7		50.7	
Actuated g/C Ratio	0.18		0.68		0.68	
v/c Ratio	0.62		0.27		0.25	
Control Delay (s/veh)	38.9		5.4		3.2	
Queue Delay	0.0		0.0		0.0	
Total Delay (s/veh)	38.9		5.4		3.2	
LOS	D		A		A	
Approach Delay (s/veh)	38.9		5.4		3.2	
Approach LOS	D		A		A	
Queue Length 50th (m)	19.9		9.5		6.5	
Queue Length 95th (m)	34.2		19.7		9.4	
Internal Link Dist (m)	39.8		31.5		195.6	
Turn Bay Length (m)						
Base Capacity (vph)	306		1620		1755	
Starvation Cap Reductn	0		0		0	
Spillback Cap Reductn	0		0		0	
Storage Cap Reductn	0		0		0	
Reduced v/c Ratio	0.49		0.27		0.25	

Intersection Summary			
Cycle Length: 75			
Actuated Cycle Length: 75			
Offset: 60 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay (s/veh): 9.4		Intersection LOS: A	
Intersection Capacity Utilization 58.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Bank & Holmwood



3: Bank & Exhibition

Lane Group	WBL	WBR	NBT	SBL	SBT	Ø1	Ø7
Lane Configurations							
Traffic Volume (vph)	9	8	370	13	351		
Future Volume (vph)	9	8	370	13	351		
Lane Group Flow (vph)	10	9	423	14	390		
Turn Type	Prot	Perm	NA	Perm	NA		
Protected Phases	8		2		6	1	7
Permitted Phases		8		6			
Detector Phase	8	8	2	6	6		
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	1.0	1.0
Minimum Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (s)	26.0	26.0	44.0	44.0	44.0	5.0	5.0
Total Split (%)	32.5%	32.5%	55.0%	55.0%	55.0%	6%	6%
Yellow Time (s)	3.3	3.3	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	3.0	3.0	3.9	3.9	3.9	0.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.3	6.3	6.9	6.9	6.9		
Lead/Lag	Lag	Lag					Lead
Lead-Lag Optimize?							Yes
Recall Mode	None	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	10.0	10.0	70.7	70.7	70.7		
Actuated g/C Ratio	0.13	0.13	0.88	0.88	0.88		
v/c Ratio	0.05	0.06	0.15	0.02	0.14		
Control Delay (s/veh)	31.6	18.9	2.2	3.0	2.2		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay (s/veh)	31.6	18.9	2.2	3.0	2.2		
LOS	C	B	A	A	A		
Approach Delay (s/veh)	25.5		2.2		2.2		
Approach LOS	C		A		A		
Queue Length 50th (m)	1.4	0.0	0.0	0.0	0.0		
Queue Length 95th (m)	5.7	4.0	13.6	2.0	12.6		
Internal Link Dist (m)	30.6		33.7		44.8		
Turn Bay Length (m)				40.0			
Base Capacity (vph)	402	278	2797	626	2805		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.02	0.03	0.15	0.02	0.14		

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.15
Intersection Signal Delay (s/veh): 2.7 — Intersection LOS: A
Intersection Capacity Utilization 43.5% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: Bank & Exhibition

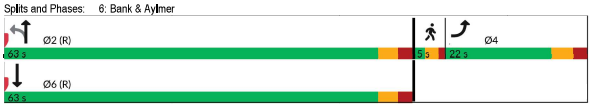
6: Bank & Aylmer

Lane Group	EBL	NBL	NBT	SBT	Ø3
Lane Configurations					
Traffic Volume (vph)	19	17	353	312	
Future Volume (vph)	19	17	353	312	
Lane Group Flow (vph)	39	0	411	373	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	4		2	6	3
Permitted Phases	4	2		6	
Detector Phase	4	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	30.0	30.0	30.0	1.0
Minimum Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (s)	22.0	63.0	63.0	63.0	5.0
Total Split (%)	24.4%	70.0%	70.0%	70.0%	6%
Yellow Time (s)	3.3	3.0	3.0	3.0	2.0
All-Red Time (s)	2.2	2.2	2.2	2.2	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.2	5.2	
Lead/Lag	Lag				Lead
Lead-Lag Optimize?					
Recall Mode	Ped	C-Max	C-Max	C-Max	Max
Act Effct Green (s)	14.0		60.3	60.3	
Actuated g/C Ratio	0.16		0.67	0.67	
v/c Ratio	0.17		0.21	0.18	
Control Delay (s/veh)	23.5		4.9	5.6	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	23.5		4.9	5.6	
LOS	C		A	A	
Approach Delay (s/veh)	23.5		4.9	5.6	
Approach LOS	C		A	A	
Queue Length 50th (m)	3.2		10.5	10.6	
Queue Length 95th (m)	11.9		14.6	15.7	
Internal Link Dist (m)	76.7		28.1	10.1	
Turn Bay Length (m)					
Base Capacity (vph)	262		1971	2055	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.15		0.21	0.18	

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.21
Intersection Signal Delay (s/veh): 6.1 — Intersection LOS: A
Intersection Capacity Utilization 45.6% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: Bank & Aylmer



7: Bank & Sunnyside

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	Ø3	Ø7
Lane Configurations										
Traffic Volume (vph)	32	29	17	36	20	290	15	319		
Future Volume (vph)	32	29	17	36	20	290	15	319		
Lane Group Flow (vph)	0	94	0	101	0	352	0	405		
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA		
Protected Phases		4		8		2	1	6	3	7
Permitted Phases	4		8		2		6			
Detector Phase	4	4	8	8	2	2	1	6		
Switch Phase										
Minimum Initial (s)	6.4	6.4	5.3	5.3	17.0	17.0	5.0	17.0	1.0	1.0
Minimum Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	60.0	5.0	5.0
Total Split (s)	25.0	25.0	25.0	25.0	43.0	43.0	17.0	43.0	5.0	5.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	47.8%	47.8%	18.9%	47.8%	6%	6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0
All-Red Time (s)	2.6	2.6	2.6	2.6	3.0	3.0	2.9	3.0	0.0	0.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0		
Total Lost Time (s)		5.6		5.6		6.0		6.0		
Lead/Lag	Lag	Lag	Lag	Lag					Lead	Lead
Lead-Lag Optimize?			Yes	Yes						Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)		12.6		12.4		69.4		69.4		
Actuated g/C Ratio		0.14		0.14		0.77		0.77		
v/c Ratio		0.60		0.51		0.16		0.19		
Control Delay (s/veh)		51.2		31.5		4.2		1.4		
Queue Delay		0.0		0.0		0.0		0.0		
Total Delay (s/veh)		51.2		31.5		4.2		1.4		
LOS		D		C		A		A		
Approach Delay (s/veh)		51.2		31.5		4.2		1.4		
Approach LOS		D		C		A		A		
Queue Length 50th (m)		15.5		10.4		8.0		1.9		
Queue Length 95th (m)		28.9		23.7		15.8		3.6		
Internal Link Dist (m)		75.1		136.0		63.1		79.0		
Turn Bay Length (m)										
Base Capacity (vph)		240		293		2189		2143		
Starvation Cap Reductn		0		0		0		0		
Spillback Cap Reductn		0		0		0		0		
Storage Cap Reductn		0		0		0		0		
Reduced v/c Ratio		0.39		0.34		0.16		0.19		

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay (s/veh): 10.5 — Intersection LOS: B
Intersection Capacity Utilization 46.2% — ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 7: Bank & Sunnyside

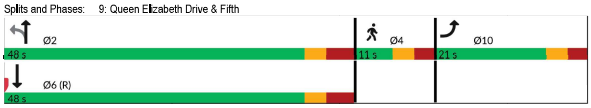
9: Queen Elizabeth Drive & Fifth

Lane Group	EBL	NBL	NBT	SBT	Ø4
Lane Configurations					
Traffic Volume (vph)	143	44	306	298	
Future Volume (vph)	143	44	306	298	
Lane Group Flow (vph)	229	0	389	410	
Turn Type	Prot	Perm	NA	NA	
Protected Phases	10		2	6	4
Permitted Phases		2			
Detector Phase	10	2	2	6	
Switch Phase					
Minimum Initial (s)	10.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (s)	21.0	48.0	48.0	48.0	11.0
Total Split (%)	26.3%	60.0%	60.0%	60.0%	14%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.7	3.8	3.8	3.8	2.7
Lost Time Adjust (s)	0.0		0.0	0.0	
Total Lost Time (s)	5.7		6.8	6.8	
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Min	None	None	C-Max	None
Act Effct Green (s)	17.2		50.3	50.3	
Actuated g/C Ratio	0.22		0.63	0.63	
v/c Ratio	0.68		0.40	0.40	
Control Delay (s/veh)	39.0		9.8	9.6	
Queue Delay	0.0		0.0	0.0	
Total Delay (s/veh)	39.0		9.8	9.6	
LOS	D		A	A	
Approach Delay (s/veh)	39.0		9.8	9.6	
Approach LOS	D		A	A	
Queue Length 50th (m)	32.0		26.4	27.7	
Queue Length 95th (m)	50.1		51.9	53.5	
Internal Link Dist (m)	57.2		0.1	5.9	
Turn Bay Length (m)					
Base Capacity (vph)	353		966	1032	
Starvation Cap Reductn	0		0	0	
Spillback Cap Reductn	0		0	0	
Storage Cap Reductn	0		0	0	
Reduced v/c Ratio	0.65		0.40	0.40	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay (s/veh): 16.3 — Intersection LOS: B
Intersection Capacity Utilization 69.2% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 9: Queen Elizabeth Drive & Fifth



Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	5	0	374	304	70
Future Vol, veh/h	0	5	0	374	304	70
Conflicting Peds, #/hr	0	0	178	0	0	107
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	6	0	416	338	78

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	555	594	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.245	4.145	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3285	2.2285	-	-	-
Pot Cap-1 Maneuver	0	528	974	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	429	791	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	13.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	791	-	429	-	-
HCM Lane V/C Ratio	-	-	0.013	-	-
HCM Ctrl Dly (s/v)	0	-	13.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q (veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	34	0	358	314	0
Future Vol, veh/h	0	34	0	358	314	0
Conflicting Peds, #/hr	0	0	0	0	0	86
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	38	0	398	349	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	349	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.245	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3285	-	-	-	-
Pot Cap-1 Maneuver	0	691	0	-	-	0
Stage 1	0	-	0	-	-	0
Stage 2	0	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	691	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	691	-
HCM Lane V/C Ratio	-	0.055	-
HCM Ctrl Dly (s/v)	-	10.5	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q (veh)	-	0.2	-

Intersection	
Int Delay, s/veh	23.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	242	214	57	115	227	134
Future Vol, veh/h	242	214	57	115	227	134
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	269	238	63	128	252	149

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	581	327	401	0	-	0
Stage 1	327	-	-	-	-	-
Stage 2	254	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	479	719	1169	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	793	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	451	719	1169	-	-	-
Mov Cap-2 Maneuver	451	-	-	-	-	-
Stage 1	692	-	-	-	-	-
Stage 2	793	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	49.9	2.7	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1169	-	547	-	-
HCM Lane V/C Ratio	0.054	-	0.926	-	-
HCM Ctrl Dly (s/v)	8.3	0	49.9	-	-
HCM Lane LOS	A	A	E	-	-
HCM 95th %tile Q (veh)	0.2	-	11.5	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	444	1	0	364
Future Vol, veh/h	0	4	444	1	0	364
Conflicting Peds, #/hr	0	0	0	100	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	2	0	2	2
Mvmt Flow	0	4	493	1	0	404

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	347	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	655	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	-	586	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	586	-
HCM Lane V/C Ratio	-	-	0.008	-
HCM Ctrl Dly (s/v)	-	-	11.2	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q (veh)	-	-	0	-