3275-3301 Trafalgar Road, Oakville Transportation Impact Assessment

Paradigm Transportation Solutions Limited

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220208

ptsl.com

Project Summary

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Executive Summary

Content

Paradigm Transportation Solutions Limited (Paradigm) was retained to conduct this Transportation Impact Study (TIS) for the residential development located at 3275-3301 Trafalgar Road in Oakville, Ontario.

The study aims to assess current traffic and the additional traffic generated by the proposed development, analyze the traffic impact on the adjacent roadway network and provide the municipality and owner with any improvements required to mitigate the identified effects of the site-generated traffic.

The residential development is proposed to include 1,279 residential units developed across two phases and is located at 3275-3301 Trafalgar Road in the Town of Oakville, Ontario.

- Phase 1 is assumed to be built out by 2026 and consists of 816 units. Access will be provided via a new north/south road, “New Road B,” and an extension of William Coltson Boulevard.
- Phase 2 comprises 463 units and is assumed to be built out by 2028. Access will be provided via Wiliam Colton Boulevard and a new east/west road, “New Road A”, connected to Trafalgar Road.

Conclusions

Transportation Impact Assessment

The proposed development will generate approximately 300 new vehicle trips during the weekday AM peak hour and 356 new vehicle trips during the weekday PM peak hour.

Under the future traffic conditions, the accesses are expected to operate at LOS A or better during the weekday peak hours under the Total conditions.

It is acknowledged that deficiencies currently exist at specific locations, primarily along the Trafalgar Road corridor within the study area. Trafalgar Road will be widened from four to six lanes to provide additional road capacity and accommodate future growth. While most intersections in the study area will operate with acceptable service levels, certain movements and intersections, such as Trafalgar Road at Dundas Street, are forecast to operate with significant delays in the future background horizons.

Regarding development traffic implications, similar levels of operation are generally expected under the Total conditions with site-generated traffic volumes. However, due to the congested forecasted operations of certain movements under background conditions, additional traffic significantly increases delay.

Due to the levels of congestion forecast in the future horizon, even with the Trafalgar Road widening, additional remedial measures to improve intersection capacity are not likely to be implemented. Instead, future transportation network improvements are expected to primarily focus on public transit infrastructure.

By focusing on shifting commuter travel to public transit, intersection operations could be expected to maintain the status quo (capacity conditions during peak hours) or possibly improve if fewer vehicles traverse the intersections during the peak hours of a typical weekday.

The proposed internal road network of collector and local road types would have traffic volumes appropriate for these road classes. The proposed lane configurations and traffic controls are adequate for the forecasted site traffic. The basic lane requirements for all roads within the lands would be one lane in each direction. With further refinement of the concept plan, consideration would be given to the final road right-of-way, cross-section details, the need for exclusive turn lanes at intersections, and traffic control requirements.

Sustainable Transportation

The proposed development can be well served by transit through the extension of existing and future Transit bus routes, with buses operating in mixed traffic. The route coverage density should attempt to place most properties within 400 metres of a bus stop.

The proposed roadways within the development area can provide the framework for a network of pedestrian and cycling routes. Collector roadways are the preferred location for bike lanes as these roads generally carry lower traffic volumes at slower speeds than arterials and provide direct property access to residential land uses. The active transportation strategy will evolve as development occurs, given that the lands are predominately vacant currently with no existing walking or cycling infrastructure.

To complement and build upon the development location and accessibility and enhance the non-auto-dependent mobility of prospective residents, the development will consider adopting a Transportation Demand Management (TDM) plan with the following measures to reduce dependency on vehicular travel. These measures

include providing pedestrian connections to existing and future sidewalks, provision of bicycle spaces, charging parking as a separate cost to occupants, and providing welcome packets outlining the available transportation modes and schedules.

Parking

Zoning By-law 2009-189 is the current in-force By-law for the Town of Oakville for lands between Dundas Street and Highway 407. In contrast to generic minimum parking requirements, Zoning By-law 2009-189 provides maximum limits to restrict the number of spaces that can be constructed rather than establish a minimum number that must be provided.

The site concept plan includes 1566 parking spaces (1352 occupants and 214 visitor spaces) for Parcel 1 and Parcel 2. Overall, the proposed supply of 1,566 parking spaces (1.22 spaces per unit) satisfies the Zoning requirements.

The residential parking supply is supported based on a review of parking proxy data collected from residential buildings within Halton Region and ITE parking demand rates. Based on the data, the projected demand is forecast to be in the order of 1,305 spaces, well within the proposed parking supply.

The Town's *Zoning By-law 2009-189 -Section 5.7* stipulates that developments are required to provide bicycle parking, with minimum bicycle parking rates and maximum supplies outlined. Based on these requirements, the proposed development is required to provide 200 bicycle spaces: 150 long-term (occupant) and 50 short-term (visitor) spaces. The site's bicycle parking supply is 968 long-term spaces and 321 short-term spaces. In order to support shifting modes away from auto orientated travel and towards cycling, additional bicycle parking above the 200-space maximum should be permitted.

Recommendations

Based on the findings of this study, the following recommendations are identified:

- The Town/Region provides exclusive left-turn phases for the following intersections:
  - Burnhamthrope Road E at Trafalgar Road – northbound, eastbound, and westbound left-turn phases
  - Wheat Boom Drive at Trafalgar Road – southbound left-turn phase

  - Dundas Street at Postridge Drive – northbound and southbound left-turn phases
  - New Road A at Trafalgar Road – southbound left-turn phase
- The Town/Region continues monitoring signalized intersection operations and adjusting signal timings as needed.
- The Town focuses on shifting commuter travel to public transit and non-auto modes to maintain/improve intersection operations.
- The Town to support shifting modes away from auto orientated travel and towards cycling by permitting the additional bicycle parking above the 200 space maximum.
- On-site pedestrian sidewalks are recommended to be well-lit and conform to the Town of Oakville's design standards and the Accessibility for Ontarians with Disabilities Act (AODA) design standards.
- Applicant implements unbundled resident parking where parking spaces are provided as a separate cost to residents.
- Applicants provide a comprehensive TDM plan to maximize alternative mobility opportunities for residents and visitors.

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1 Introduction

1.1 Overview

Paradigm Transportation Solutions Limited (Paradigm) was retained to conduct this Transportation Impact Study (TIS) for the residential development located at 3275-3301 Trafalgar Road in Oakville, Ontario. **Figure 1.1** details the location of the subject development.

The study aims to assess current traffic and the additional traffic generated by the proposed development, analyze the traffic impact on the adjacent roadway network and provide the municipality and owner with any improvements required to mitigate the identified effects of the site-generated traffic.

More specifically, the scope of this study is to:

- Forecast traffic from the proposed development;
- Assign the projected volumes to the surrounding road network based on the existing traffic patterns at the driveway connections;
- Assess total future traffic within the study area. The following horizons have been considered: Phase 1 build-out (2026), Phase 2 build-out (2028), five years from Full Build-Out (2033), and 10 years from Full Build-Out (2038)
- Identify operational concerns and any mitigation measures that may be required to improve operations and
- Review and identify potential Transportation Demand Management (TDM) measures that can be implemented for the proposed development.

This report adhered to the terms of reference developed by Paradigm and agreed upon by the Town of Oakville and the Region of Halton. **Appendix A** contains the pre-study consultation material.

1.2 Study Area

The study area intersections assessed in this study include:

- Trafalgar Road at William Halton Parkway (signalized)
- Trafalgar Road at Burnhamthorpe Road East (signalized)
- Trafalgar Road at Threshing Mill Boulevard (signalized)
- Trafalgar Road at Wheat Boom Drive (signalized)
- Trafalgar Road at Dundas Street (signalized)
- Dundas Street & Postridge Drive (signalized);
- Threshing Mill Boulevard at William Coltson Avenue (unsignalized); and
- Three driveway connections

Figure 1.1 illustrates the study area location.

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Subject Site Location

3275 Trafalgar Road, Oakville TIS
220208

Figure 1.1

2 Existing Conditions

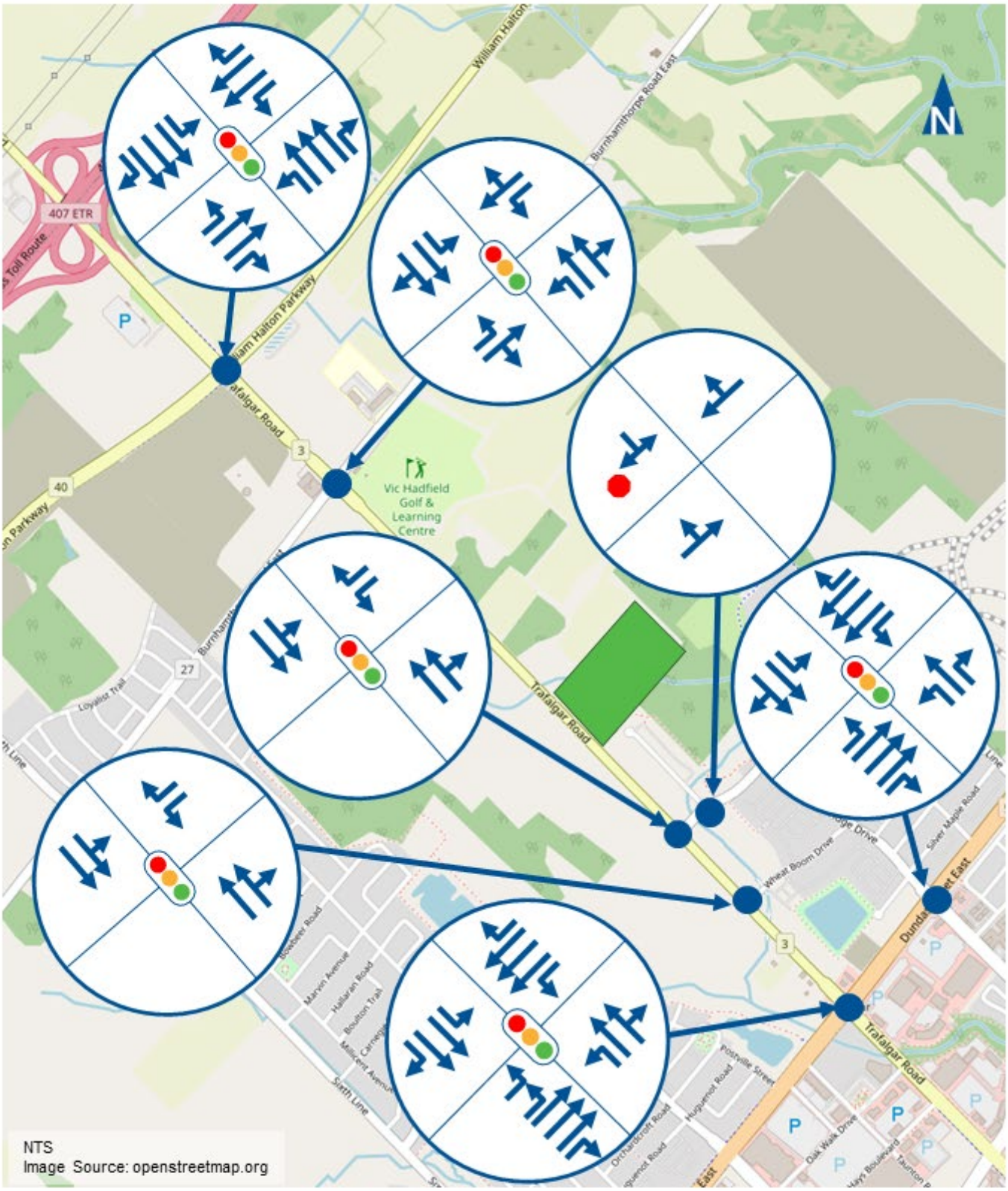
2.1 Roadway Characteristics

The roadways of interest within the study area include:

- **Trafalgar Road** (Halton Region Road 3) is a major arterial road[1] with a four-lane cross-section. The posted speed limit is 80 km/h north of Wheat Boom Street and 60 km/h south of Wheat Boom Street. Sidewalks are provided on the east side of the road, south of Dundas Street.
- **Dundas Street** (Halton Regional Road 5) is a major arterial road with a six-lane cross-section. The posted speed limit is 70 km/h. Sidewalks are provided on the south side of the road east of Trafalgar Road and both sides of the road west of Trafalgar Road.
- **William Halton Parkway** is an east-west major arterial road with a four-lane cross-section. The posed speed limit is 60 km/h. Bike lanes and sidewalks are provided on both sides of the road.
- **Burnhamthorpe Road East** is an east-west major collector road with a two-lane cross-section. The posed speed limit is 60 km/h. There are no sidewalks provided on either side of the road.
- **Postridge Drive** is a north-south major collector road with a four-lane cross-section north of Dundas Street. The posted speed limit is 50 km/h. Sidewalks are provided on both sides of the road.
- **Threshing Mill Boulevard** is an east-west minor collector road with a two-lane cross-section. The posted speed limit is 50 km/h. Sidewalks are provided on the north side of the road, east of William Coltson Avenue.
- **Wheat Boom Drive** is an east-west minor collector road with a two-lane cross-section. A statutory speed limit of 50 km/h is assumed. Sidewalks are provided on both sides of the road.
- **William Coltson Avenue** is a north-south local road with a two-lane cross-section. A statutory speed limit of 50 km/h is assumed. Sidewalks are provided on the east side of the road.

Figure 2.1 illustrates the study area's existing land configuration and traffic control.

[1] Town of Oakville, Livable Oakville Schedule C, 2021.



Existing Lane Configuration and Traffic Control

3275 Trafalgar Road, Oakville TIS
220208

Figure 2.1

2.2 Existing Transit Service

2.2.1 Oakville Transit

Oakville Transit owns and operates the public transit system in Oakville. Route 1 – Trafalgar operates along Trafalgar Road between the Oakville GO station and the Trafalgar/407 GO Carpool lot. The route operates on weekdays between 6:00 AM and 12:00 AM with hourly headways.

As the area is in the process of being developed, the closest transit stop is located approximately 1.0 km south of the subject site at the intersection of Trafalgar Road and Dundas Street.

Figure 2.2 illustrates the existing Oakville Transit network.

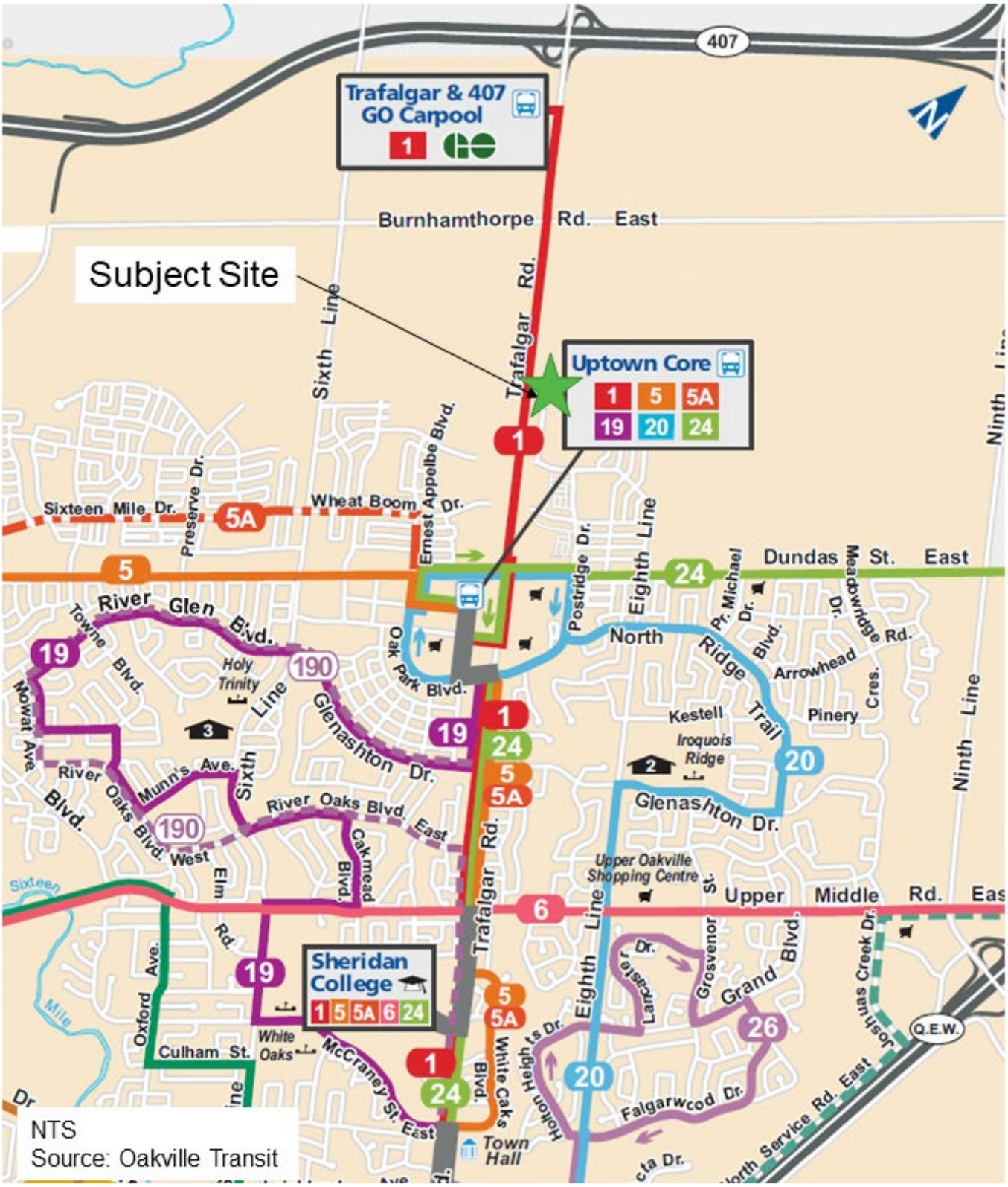
2.2.2 GO Inter-Regional Transit

The proposed development is approximately 2 km from the 407/GO Carpool lot, located south of Highway 407, and 8.5 km from the Oakville GO Station. This station is located along the Lakeshore West Line, which currently operates a two-way all-day train service seven days a week and GO Bus connections to Hamilton and Sheridan College and York University via Highway 407.

2.2.3 Rapid Transit

Trafalgar Road between Midtown Oakville and Highway 407 has been identified as a rapid transit corridor by Metrolinx in their regional Transportation Plan and as a transitway for bus rapid transit in the Region of Halton's Official Plan and The Livable Oakville Plan.

The Trafalgar Bus Rapid Transit is envisioned to utilize planned HOV/BRT lanes along Trafalgar Road to support transit usage in the corridor and help achieve the Region's 20% transit modal split by 2031. Detailed plans for the service frequency and stop locations are not currently available.



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Existing Transit Network

3275 Trafalgar Road, Oakville TIS
220208

Figure 2.2

2.3 Active Transportation

Pedestrian sidewalks are provided on at least one side of streets through most study area.

On-road cycling lanes are not currently provided on the streets in the study area. However, the Halton Region's Active Transportation Master Plan[2] proposes boulevard multi-use trails along Trafalgar Road.

In addition, as cyclists are permitted to ride on most roads except controlled-access highways, the lack of separate bicycle lanes on all other local and collector roadways will not prohibit this type of travel.

2.4 Traffic Volumes

Turning movement counts (TMC) are used to quantify the movement of vehicles through the area to assess intersection operation. Existing traffic data at an intersection or road section forms the foundation for analysis. The counts are usually taken during peak periods at an intersection to complete the level of service analysis. **Appendix B** contains the traffic data utilized in this report.

TMC data from 2022 and 2023 have been used for analysis purposes. Counts completed before 2023 have been adjusted to provide reasonable traffic volumes for the baseline horizon (2024), using a growth rate of 2% per annum as outlined by the Town.

2.4.1 Traffic Data

Existing traffic counts were collected by Paradigm. **Table 2.1** provides a summary of traffic count locations and dates**.**

TABLE 2.1: TRAFFIC COUNT SUMMARY

Intersection	Count Date
William Halton Parkway & Trafalgar Road	May 25, 2023
Burnhamthrope Road E & Trafalgar Road	December 1, 2022
Threshing Mill Boulevard & Trafalgar Road	December 1, 2022
Wheat Boom Drive & Trafalgar Road	December 1, 2022
Dundas Street & Trafalgar Road	December 1, 2022
Dundas Street & Postridge Drive	May 25, 2023
Threshing Mill Boulevard & William Coltson Avenue	December 1, 2022

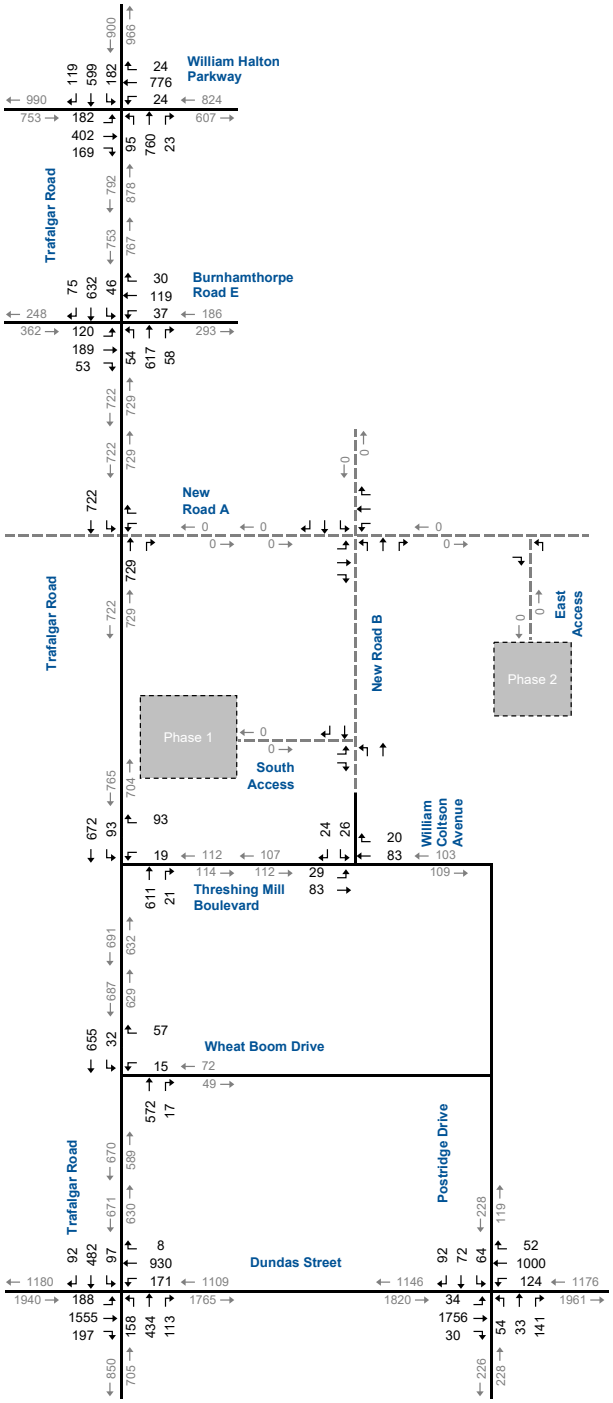
[2] Halton Active Transportation Master Plan (ATMP), Halton Region, May 2015

2.4.2 Volume Balancing

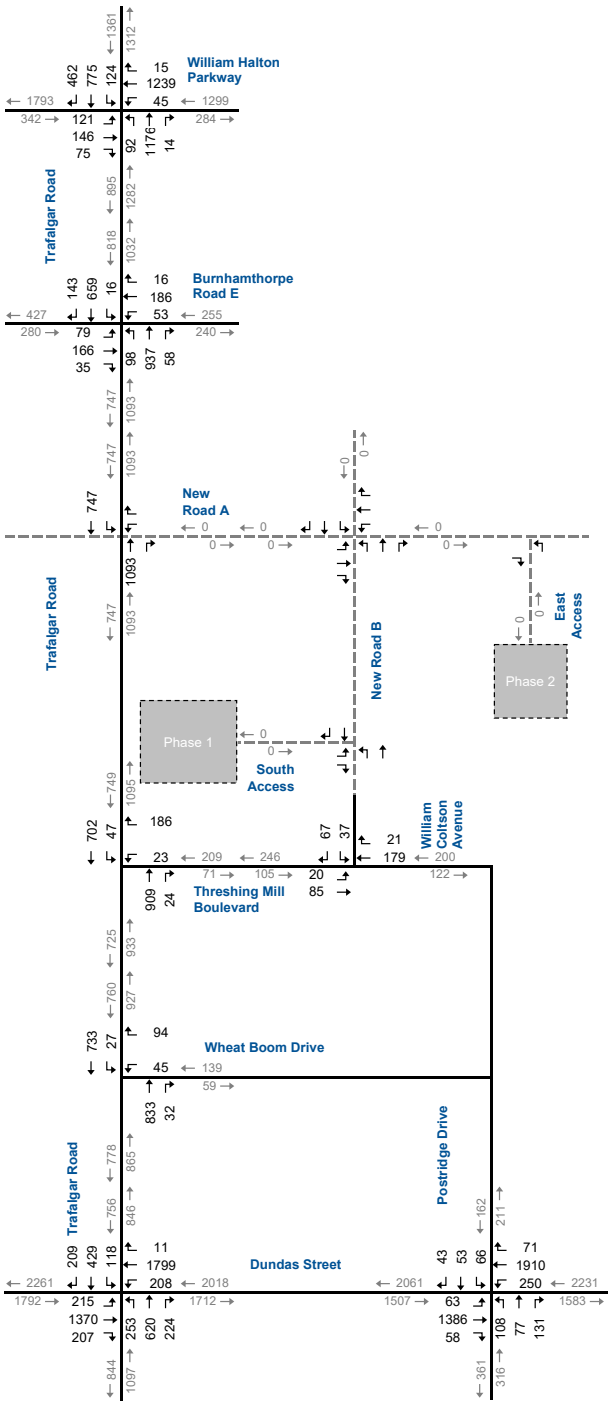
Volume balancing along Trafalgar Road and Dundas Street has also been applied to ensure the corridor maintains reasonable upstream and downstream flow.

Figure 2.3 illustrates the adjusted base year traffic volumes during the weekday AM and PM peak hours.

AM Peak Hour



PM Peak Hour



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Base Year Traffic Volumes

3275 Trafalgar Road, Oakville TIS
220208

Figure 2.3

3 Development Proposal Review

3.1 Programme Elements

The residential development is proposed to include 1,279 residential units developed across two phases and is located at 3275-3301 Trafalgar Road in the Town of Oakville, Ontario.

The following provides an overview of the programme elements for the Proposed Development. **Figure 3.1** illustrates the proposed concept. A summary of the development programme is provided in **Table 3.1**.

TABLE 3.1: PROPOSED DEVELOPMENT PROGRAMME

Parcel	Phase	Land Use	Build-Out Year	Units
1	1	Multifamily Housing	2026	816
2	2	Multifamily Housing	2028	463
Total				**1,279**

3.1.1 Phase 1

Phase 1/Parcel 1 is assumed to be built by 2026 and consists of Buildings A and B, 30 and 30-storey towers atop a six-storey podium. Phase 1 proposes a total of 816 residential units. Access will be provided via a new north/south road, “New Road B,” which connects to William Coltson Boulevard.

New Road B is proposed to be “bulbed” just north of the access point to the development block for Phase 1. The road width at the bulb will maintain a centreline radius of 12 metres to accommodate fire trucks. Access to the development during the phase will be to/from the south along William Coltson Avenue, likely utilizing the intersection of Trafalgar Road and Threshing Mill Boulevard to access the external study roadway network.

3.1.2 Phase 2

Phase 2/Parcel 2 consists of the 14-storey Building C and 14-storey Building D and is assumed to be built out by 2028. Phase 2 contains 463 residential units.

For Buildings A and B, access will still be limited to Wiliam Colton Boulevard. Buildings C and D will be accessed via a new east/west road, “New Road A,” connected to Trafalgar Road. Phase 2 traffic is assumed to access the external study area through the intersection of

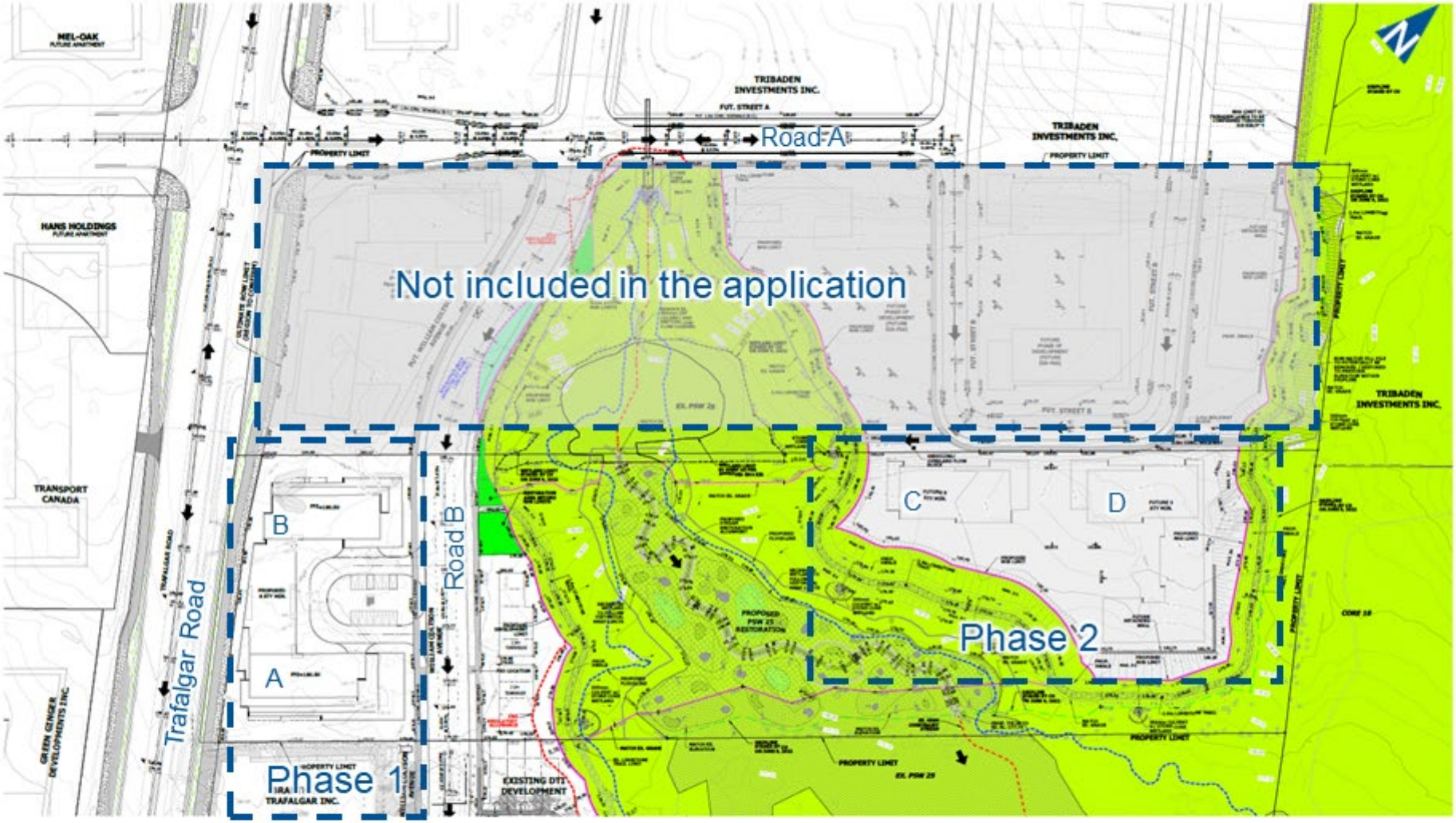
New Road A at Trafalgar Road to gain access to the external roadway network.

Under this Phase, it is also assumed that New Road B would still be bulbed, without a connection made to New Road A. As a result, trips associated with Phase 1 would still be limited to/from the south along William Coltson Avenue, likely utilizing the intersection of Trafalgar Road and Threshing Mill Boulevard to gain access to the external study roadway network.

3.1.3 Future Development

Parcels 3, 4, and 5 are not included in this development application. These parcels are assumed to be built at a later date and will be accessed via New Road A which will be connected to New Road B/William Coltson Boulevard. New Road A is assumed to be implemented beyond Phase 2.

Traffic associated with Parcels 3, 4, and 5 are not included in this assessment.



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Site Concept Plan

3275 Trafalgar Road, Oakville TIS
220208

Figure 3.1

3.2 Internal Road Network

3.2.1 Road Classification

Road A is the internal east-west road through the subject site and is identified as a Connector/Transit Corridor within the Town's Secondary Plan for North Oakville East[3].

Road B is the internal north-south road through the subject site and is identified as an Avenue/Transit Corridor within the Town's Secondary Plan for North Oakville East.

Avenue/Transit Corridors and Connector/Transit Corridors connect neighbourhoods together and to Urban Core Areas and other major focal points of the community. These roads will have a higher level of design than the Local Streets through the extended use of tree and feature planting, paving, lighting, and signage design.

The design will complement the planned abutting land uses. For example, where these streets provide access to street-related retail and mixed-use development in the Urban Cores and Neighbourhood Centres, their design shall include on-street parking, wider sidewalks, and street furniture such as benches. The following describes the general design guidelines of an Avenue/Transit Corridor:

- Direct access from abutting properties will be permitted, although there may be restrictions in specific locations related to specific forms of development or the use of alternative designs.
- Up to four travel lanes will be permitted.
- In most cases, there is a provision for on-street parking on two sides except in Employment Areas, where there is provision for parking on one side only and in the Natural Heritage System Area, where no parking will be permitted.
- Transit-supportive land uses to be encouraged along ROW
- ROW shall be kept to a minimum and shall not exceed a maximum of 24 metres and, more typically, will have a ROW of 22 metres, except at approaches to major intersections where medians and/or additional lanes are required.

Based on the above, the Connector/Transit Corridor and Avenue/Transit Corridor designations likely fall under a collector road designation. Road A and Road B are proposed to have a ROW width

[3] North Oakville East Secondary Plan, Oakville, March 2023

of 19 m and 24 m respectively. The posted speed limit along Road A and B are assumed to be 40 km/h.

3.2.2 Horizontal Alignment

Geometric design for roads under the jurisdiction of the Town is based on the criteria outlined in the Town's Engineering Design Standards[4]. (ODS). The ODS specifies that a minimum centreline radius of 130 metres should be provided for a collector road and 90 metres for local roads.

However, given constraints with accommodating a suitable buffer with the provincially significant wetlands (PSW) located centrally within the property, providing the minimum centreline radius for a collector road is not feasible and would deviate from the Town's Road network as envisioned within the Secondary Plan. Rather, Road B was designed with its alignment shifted to the west to provide as much spatial separation from the PSW as possible (approximately 26 metres) while maintaining a reasonable road design standard.

This included introducing three horizontal curves with a minimum centreline radius of 90 metres, representing the minimum requirement for a local roadway per the ODS. Since Road B will likely be posted with a 40-kilometre-per-hour maximum speed limit, the 90-metre curve radius should be considered as a minimum as it also provides adequate sight lines within the subdivision at planned internal intersections and is not expected to impact drivers' expectations.

3.2.3 Intersection Angle

TAC-GDGCR, section 9.7.2, the following is stated concerning intersection angles: "While crossing at 90° is preferable in most cases, it is occasionally necessary and even advantageous to skew the crossing (e.g., to favour heavier turning movement). However, angles less than 70° and greater than 110° are typically not desirable."

The current concept plan depicts that Road B will intersect Road A at an 82° angle and fall within the threshold for a right-angle intersection.

3.2.4 Intersection Alignment

TAC-GDGCR, section 9.2.4, the following is stated concerning intersection alignment: "Sometime, opposing legs of four-legged intersections are offset from one another. Offsets equal to or less than

[4] Oakville, Department of Public Works, Standard Drawings (no date provided)

1.5 m do not normally pose any difficulties and offsets greater than 40 m usually operate acceptably as successive T-intersections."

The current concept plan depicts an offset of 1.5 metres proposed between the opposing approaches at the Road A and B intersection. To achieve total alignment, a reduction in buffer from the PSW would need to occur. However, the design is adequate, given that the proposed offset is within the threshold for intersection alignment as noted by TAC-GDGCR. Additionally, the offset depicted reflects the overall ROW; consideration can still be given to the final road cross-section details that could reduce or eliminate the offset as part of the final pavement width design.

3.2.5 Right-of-Way (ROW)

Road A will be provided with a two-lane cross-section and 19-metre ROW. As Road A will be designed as a Connector/Transit Corridor per the Secondary Plan, the proposed ROW meets the general design requirement of keeping the ROW to a minimum, not exceeding 19 metres.

Road B will be provided with a 24-metre ROW for the southern portion of the road to match the existing ROW currently provided for William Coltson Avenue. As the roadway passes through curve 2 in the alignment, the roadway will taper back to a ROW width of approximately 22 metres to provide additional buffer from the PSW.

As Road B will be designed as an Avenue/Transit Corridor per the secondary plan, the proposed ROW meets the general design requirement of keeping the ROW to a minimum, not exceeding 24 metres and generally following a 22-metre width.

Further detailed design work will be required to confirm the cross-section details for the internal roads and the potential need for additional right-of-way at intersections. However, an essential component of Road B will be the provision of appropriate space to accommodate a multi-modal public street network that exhibits a suitable "urban design" with well-conceived space for pedestrians, including landscaping elements, cyclists, transit services (should they be routed along specific segments), general vehicular traffic, service vehicle traffic and emergency vehicle access and routing options.

A copy of the Town of Oakville's 22-metre and 24-metre standard cross-sections are provided in **Appendix C**. It is expected that Road B will follow similar standards.

3.3 Development Trip Generation

The Institute of Transportation Engineers (ITE) Trip Generation methods are used to estimate the site trip generation. LUC 222 – Multifamily Housing (High Rise) was used to estimate the site trip generation.

To remain conservative, no modal split adjustment has been applied to the trip generation estimate to account for active transportation or transit-oriented trips.

Table 3.1 summarizes the estimated trip generation for each phase of the development. Phase 1 is forecast to generate 192 AM and 227 PM peak-hour vehicle trips. Phase 2 is forecast to generate 108 AM peak hour vehicle trips and 129 PM peak hour vehicle trips. The full build-out of the development is forecast to generate 300 AM and 356 PM peak-hour vehicle trips.

TABLE 3.2: ESTIMATED TRIP GENERATION

Phase	AM Peak Hour			PM Peak Hour		
	In	Out	Sum	In	Out	Sum
Phase 1 - 816 Units	50	142	192	141	86	227
Phase 2 - 463 Units	28	80	108	80	49	129
Total – 1,279 Units	**78**	**222**	**300**	**221**	**135**	**356**

The directional distribution of traffic approaching and departing the subject site is a function of several variables, including population density, existing travel patterns, and the efficiency of the roadways surrounding the site.

The trip distribution for the subject site was estimated based on a review of existing trip patterns at the study area intersections. This is appropriate given the surrounding land is predominately residential and displays typical commuter patterns. **Table 3.2** summarizes the resultant trip distribution applied.

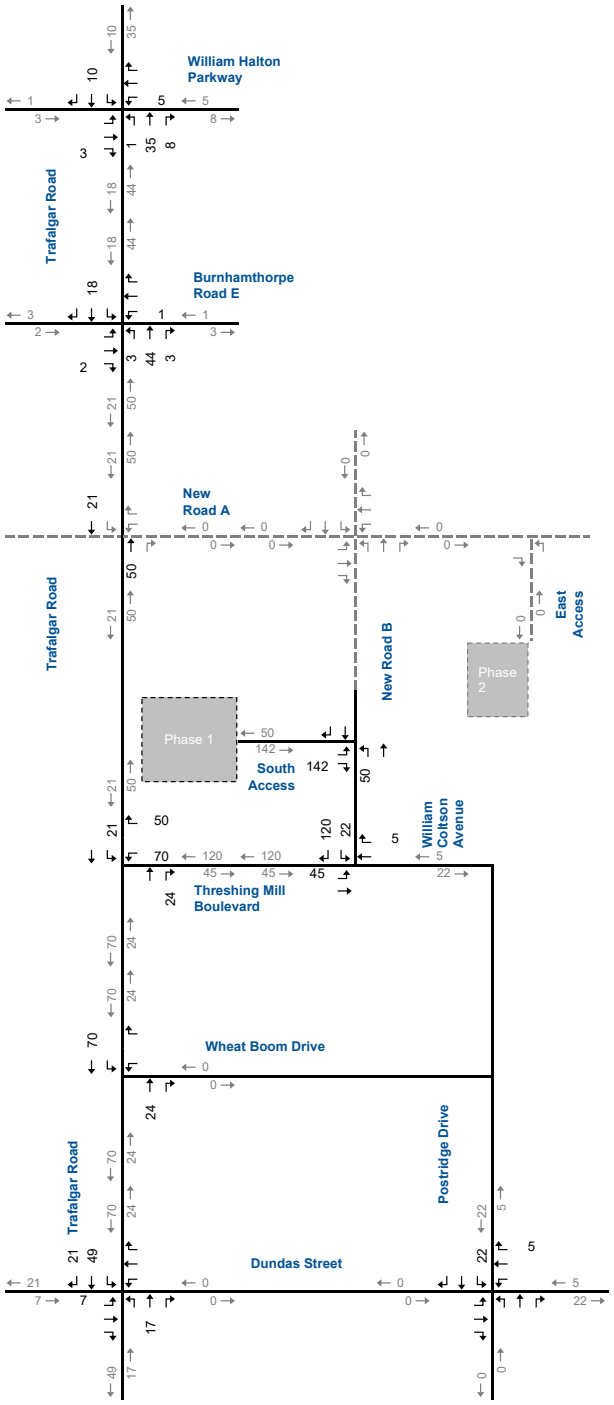
Trips to/from the site are assumed to take the shortest path. After Phase 2 is constructed, Roads A and B will be connected to allow for more direct route connections through the subject site.

Figure 3.2 to **Figure 3.4** illustrate the trip assignment for Phases 1 and 2 and total site-generated trips for the AM and PM peak hours.

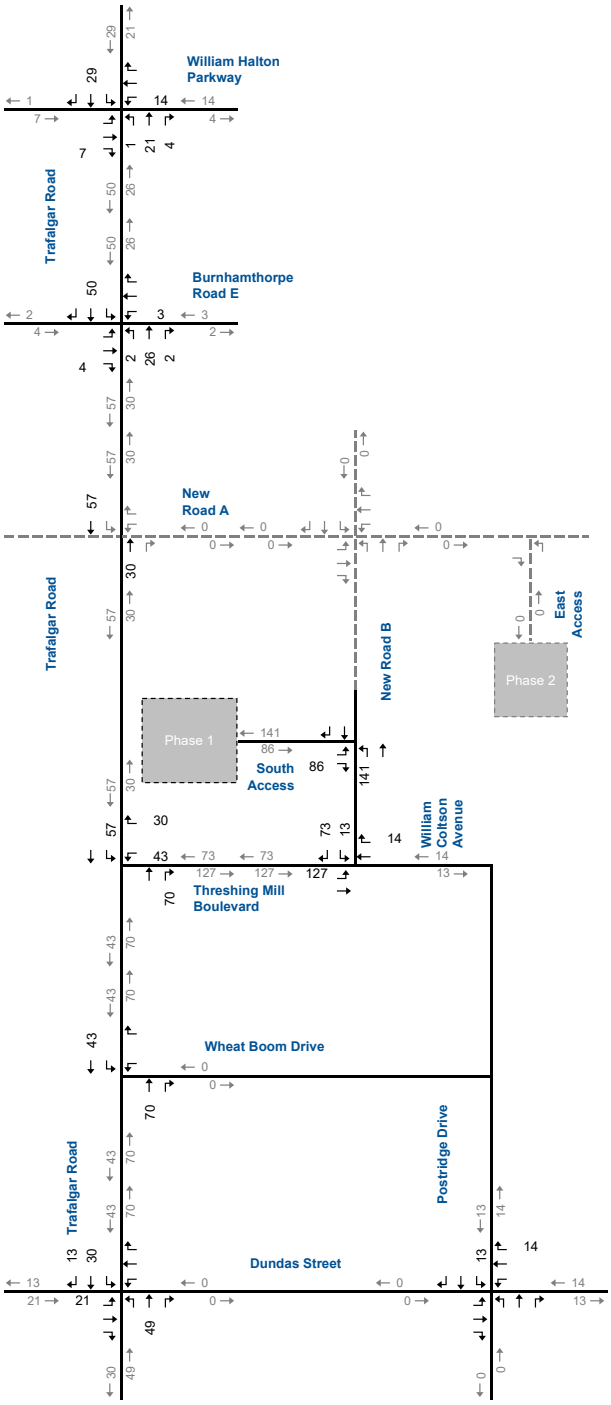
TABLE 3.3: TRIP DISTRIBUTION

From/To	AM		PM	
	In	Out	In	Out
North via Trafalgar Road	20%	25%	20%	25%
South via Trafalgar Road	35%	35%	35%	35%
East via William Halton Parkway	10%	5%	10%	5%
West via William Halton Parkway	5%	1%	5%	1%
East via Burnhamthorpe Road E	2%	2%	2%	2%
West via Burnhamthorpe Road E	3%	2%	3%	2%
East via Dundas Street	10%	15%	10%	15%
West via Dundas Street	15%	15%	15%	15%
Total	**100%**	**100%**	**100%**	**100%**

AM Peak Hour



PM Peak Hour



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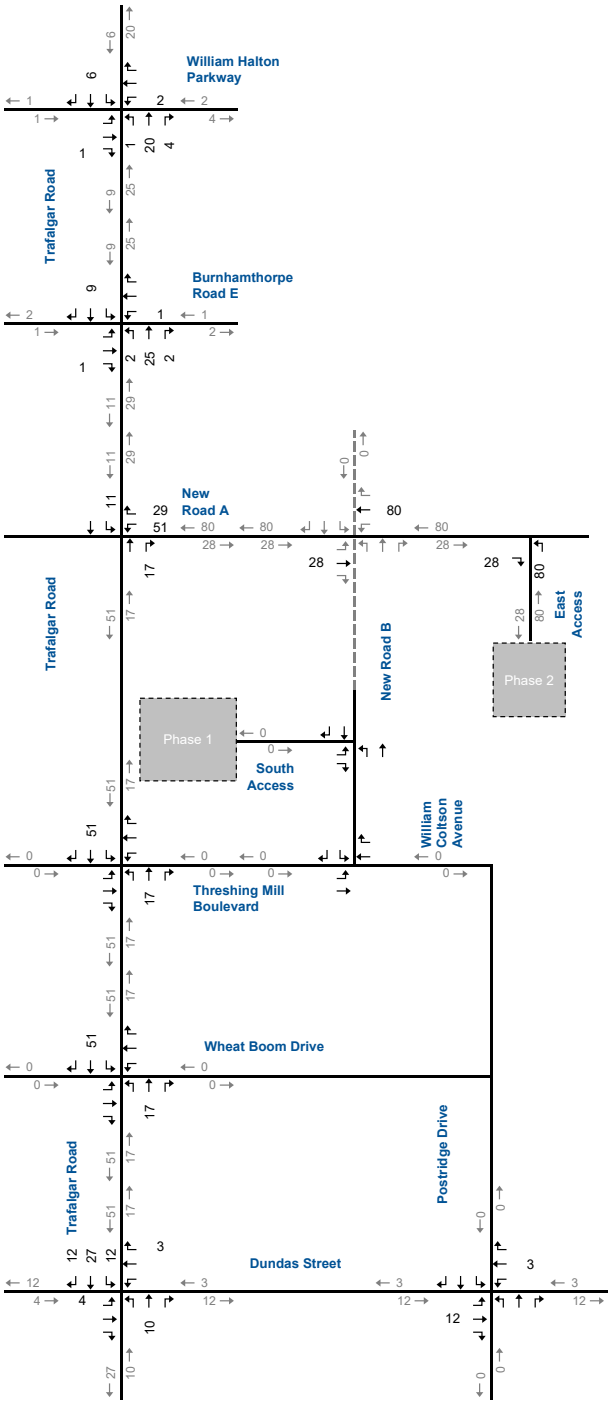
Site Generated Traffic Volumes Phase 1

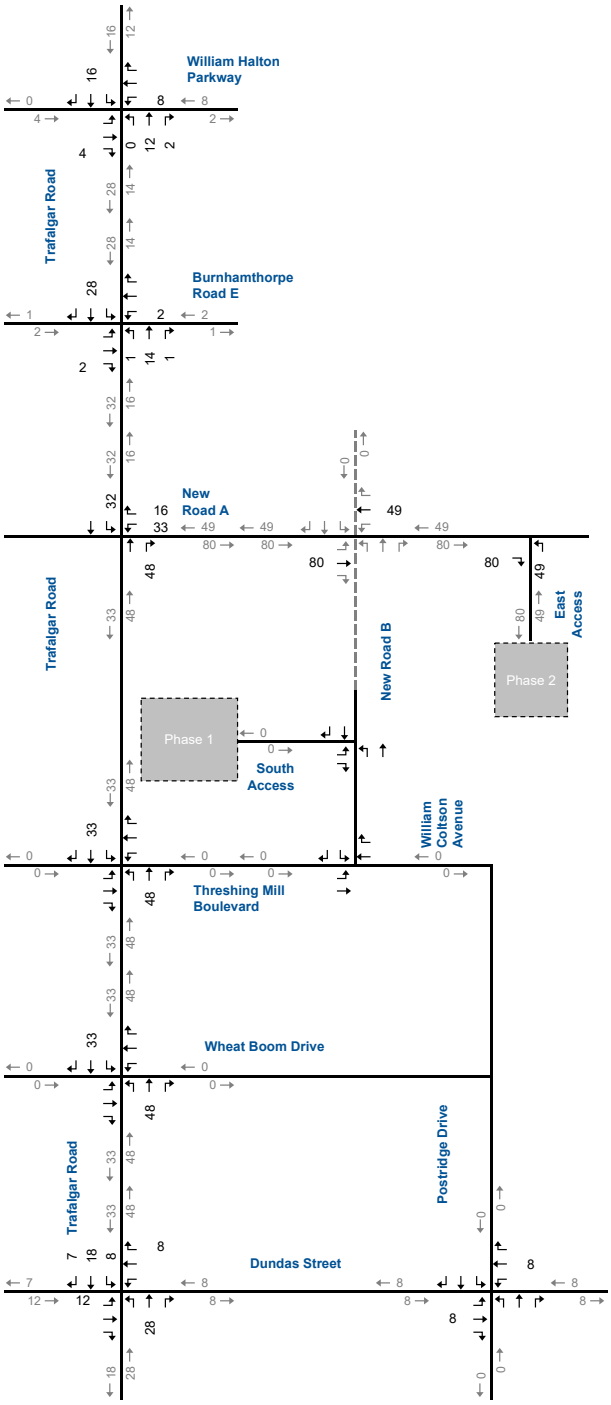
3275 Trafalgar Road, Oakville TIS
220208

Figure 3.2

AM Peak Hour



PM Peak Hour



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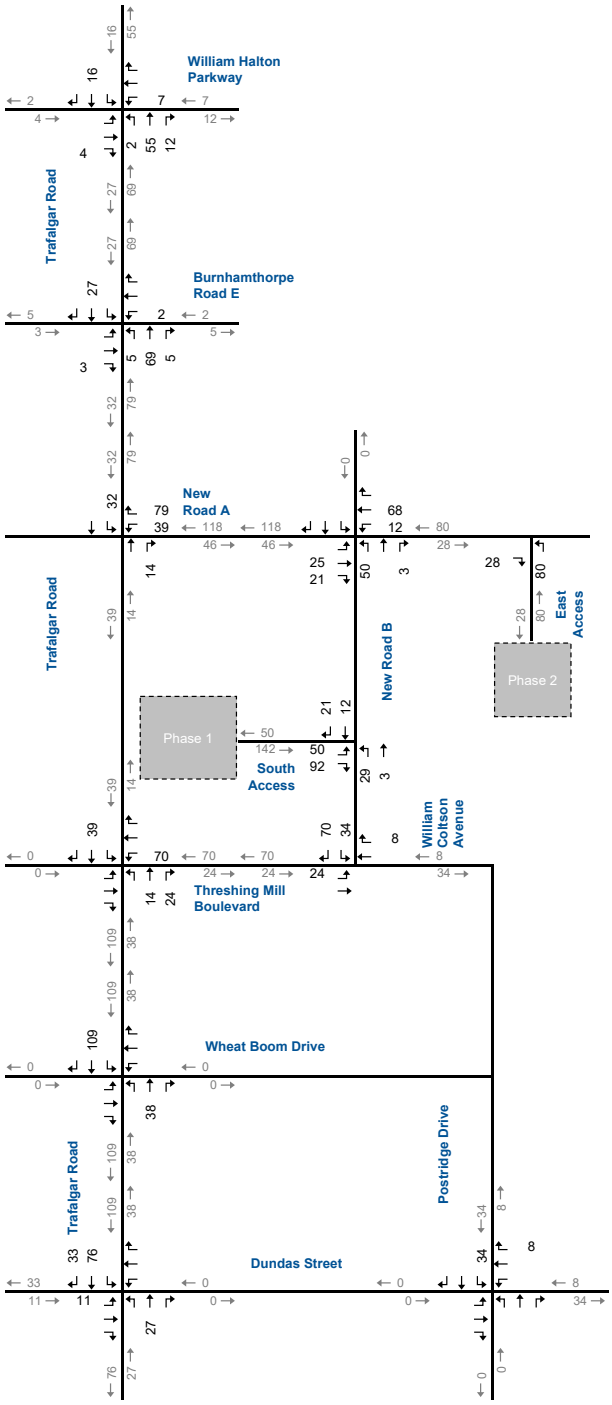
Site Generated Traffic Volumes Phase 2

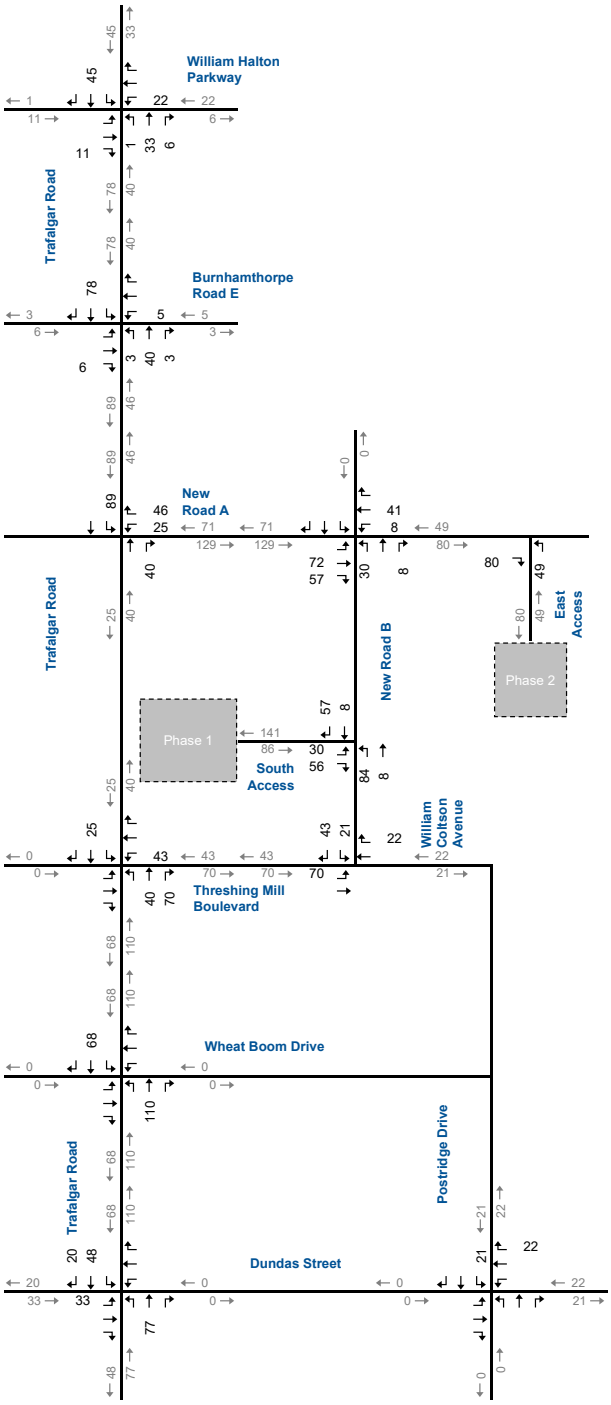
3275 Trafalgar Road, Oakville TIS
220208

Figure 3.3

AM Peak Hour



PM Peak Hour



Site Generated Traffic Volumes Total

3275 Trafalgar Road, Oakville TIS
220208

Figure 3.4

3.4 AutoTURN Analysis

The on-site circulation has been assessed using the following design vehicles:

- Specialized Transit Vehicle; and
- Snowplow.

Appendix D contains the AutoTURN analysis.

The specialized transit vehicle will be able to pick up and drop off without needing to reverse the vehicle. A minor conflict is noted at the preliminary-design turn-around for Buildings C and D. However, the conflict will be addressed at site plan.

There is sufficient storage around the cul-de-sac for snow storage. The snowplow is expected to make multiple back and forth movements to clear the snow from the temporary cul-de-sac. After the snow is cleared, the AutoTURN shows the snowplow can manoeuvre around the temporary cul-de-sac to exit. No conflicts are noted.

4 Future Conditions

The following horizon years have been utilized to analyze future traffic conditions:

4.1 Future Traffic Growth

Traffic growth on area roadways is a function of the expected land development, economic activity, and demographic changes. A frequently used procedure estimates an annual percentage increase and applies that increase to the study area traffic volumes. An alternative approach is to identify estimated traffic generated by specific planned significant developments that would be expected to affect the project study area roadways. For this assessment, both methods were utilized.

4.1.1 General Growth Rate

Based on discussions with Town staff, a general compound annual growth rate of 2.0% per year was applied to the area roadways to account for population and employment growth.

4.1.2 Background Developments

Town staff have identified the following developments to be included in the background traffic projections. Trip generation and distribution of traffic generated by the developments are based on the respective traffic impact studies provided by the Town where available; otherwise, trip generation and distribution are estimated using ITE Trip Generation methods and the distribution shown previously in **Table 3.2**. The background developments included are outlined in **Table 4.1**. Detailed traffic assignments for the background developments can be found in **Appendix E**.

The Background traffic volumes for Phase 1 build-out (2026), Phase 2 build-out (2028), five years from Full Build-Out (2033), and 10 years from Full Build-Out (2038) are illustrated in **Figures 4.1 to 4.4**.

TABLE 4.1: BACKGROUND DEVELOPMENTS

Location	Development Description	Horizon Year
3220 William Coltson Avenue	22-storey condominium building with 356 residential condominium units	2026
OakVillage Phase 3 - 335, 345 and 349 Wheat Boom Drive	536 residential units with 380m^2 ground floor retail	2026
Green Ginger - Trafalgar Road (North of Dundas on the west side)	723 townhouse units	2028
Argo Trafalgar - East of Trafalgar between William Halton Parkway and Burhamthorpe Road	3,330 residential units, 19,701 m^2 of office space, and 13,216 m^2 of retail space	2033
Infrastructure Ontario - 4233, 4040 and 4180 Trafalgar Road	53 hectares with mixed-use residential buildings and employment lands	2033
OakVillage Phase 4A/B - 3075 Trafalgar Road	378 condominium units across two towers (20 storeys and 16 storeys)	2028
Oakvillage Phase 4C - 3075 Trafalgar Road	243 condominium units in a single, 20-storey tower	2033
3064 Trafalgar Road	Two 20-storey towers with 698 residential units	2028
145 Dundas Street East	8-storey condo building with 233 units	2028

4.1.3 Total Projections

The projected site-generated traffic volumes were added to the Background projections to develop the Total traffic volumes. The Total traffic volumes vary due to rounding of site traffic volumes but provide a conservative trip generation estimate. The weekday AM and PM peak hours are illustrated in the following Figures:

- Phase 1 build-out (2026) – **Figure 4.5**
- Phase 2 build-out (2028) – **Figure 4.6**
- Five years from Full Build-Out (2033) – **Figure 4.7**, and
- Ten years from Full Build-Out (2038) **Figure 4.8**

4.2 Future Road Network

Trafalgar Road will be widened from a four to a six-lane cross-section (three lanes in each direction) between Hays Boulevard and William Halton Parkway by 2026[5]. The curbside lane is planned to be an HOV lane serving buses and HOV vehicles.

The widening Trafalgar Road will also include sidewalks, separated bike lanes, and/or multi-use paths on either side of the road. Other improvements include new street lighting, bus shelter infrastructure, and traffic signals.

It is noted that a detailed design of the Trafalgar Corridor is in progress. As such, the future intersection lane configurations within the corridor are based on the Preferred Preliminary Design Plates[6].

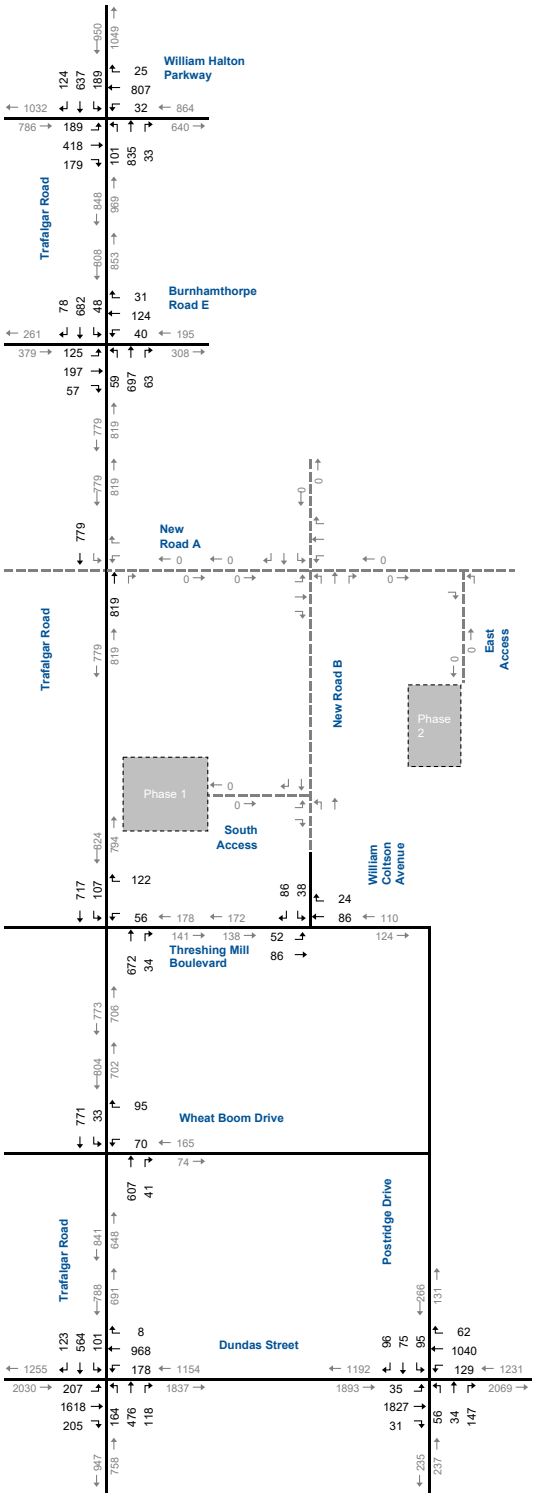
It is assumed that the Trafalgar corridor will operate as a six-lane corridor with HOV curb lanes for future horizons. Approximately 20% of lane capacity is assigned to HOV usage. The lane utilization factor in Synchro has been adjusted to 0.80 for the through lanes to reflect a 20% HOV usage.

For the internal network, Road A is proposed as a two-lane Connector/Transit Corridor and will serve as the east-west connection through the site. Road B is proposed as a four-lane Avenue/Transit Corridor and will serve as the north-south connection through the site. **Figure 4.9** illustrates the future road network.

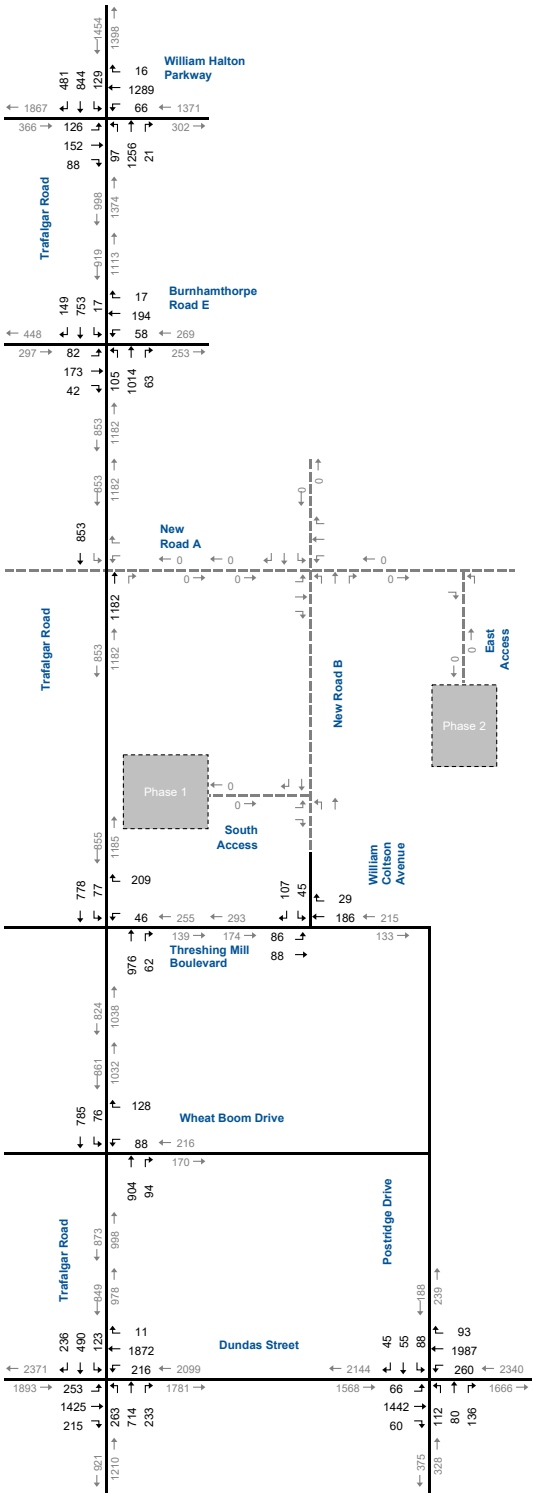
[5] Town of Oakville, Trafalgar Road Improvements – Oakville, https://www.halton.ca/For-Residents/Roads-Construction/Construction-Projects/Trafalgar-Road-Improvements

[6] Town of Oakville, Preferred Preliminary Design Plates – Trafalgar Road Corridor Study, 2015

AM Peak Hour



PM Peak Hour



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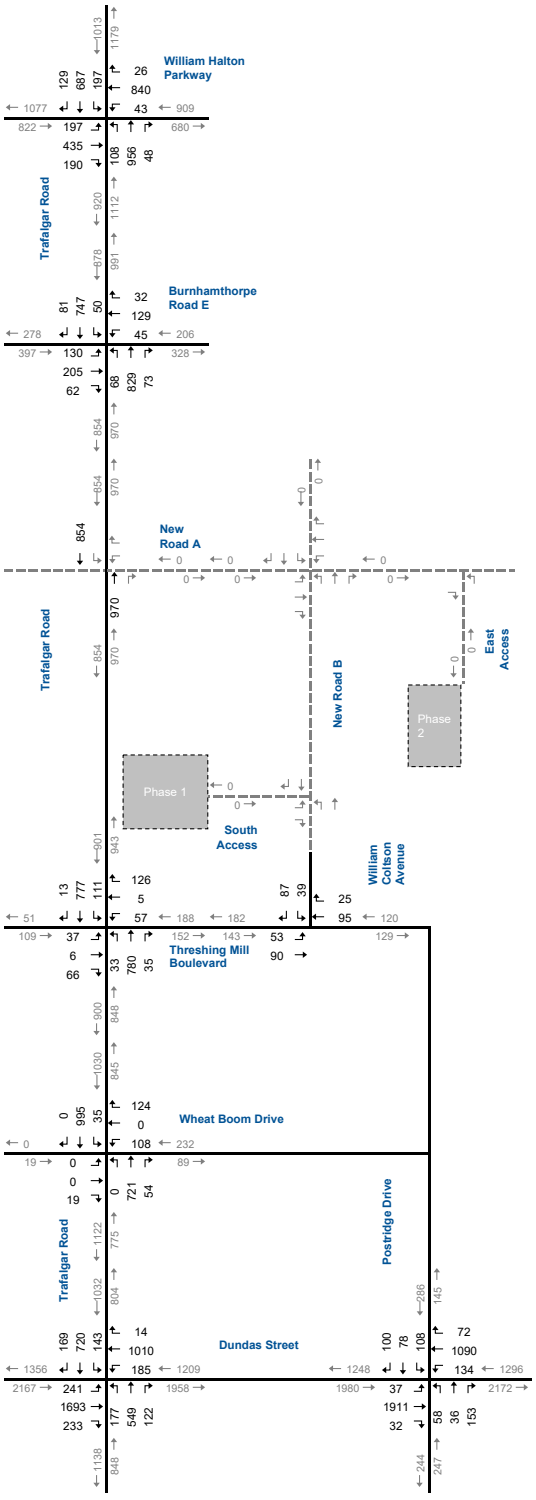
Background Traffic Volumes Phase 1 (2026)

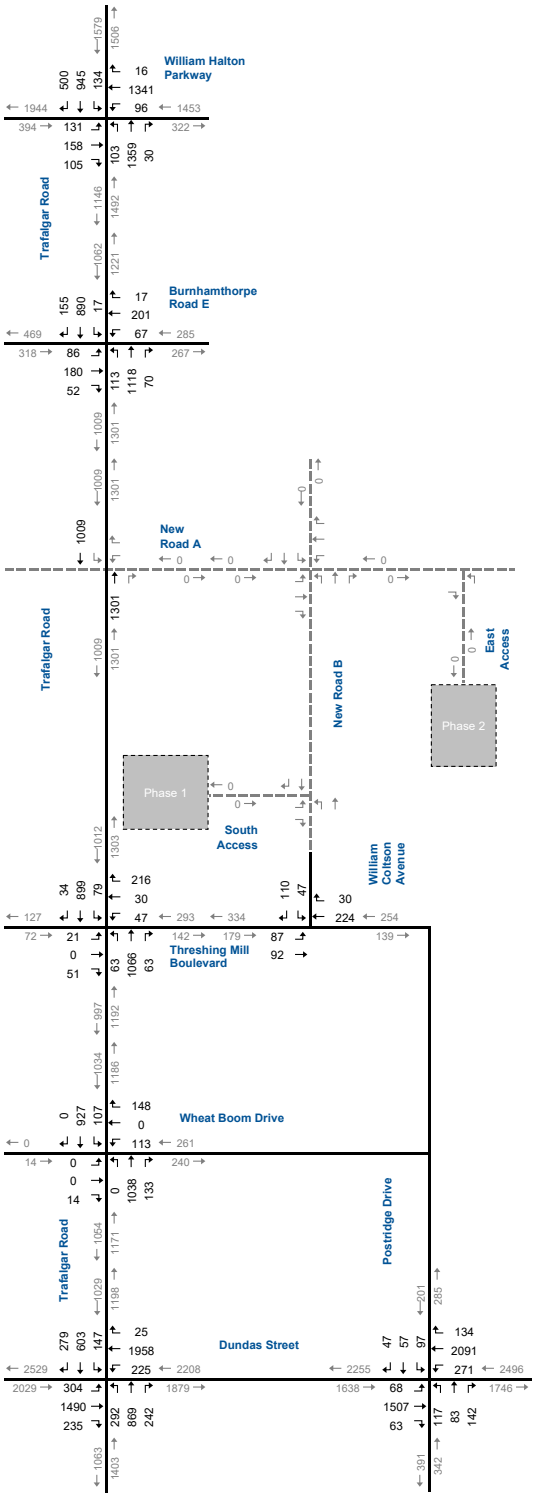
3275 Trafalgar Road, Oakville TIS
220208

Figure 4.1

AM Peak Hour



PM Peak Hour



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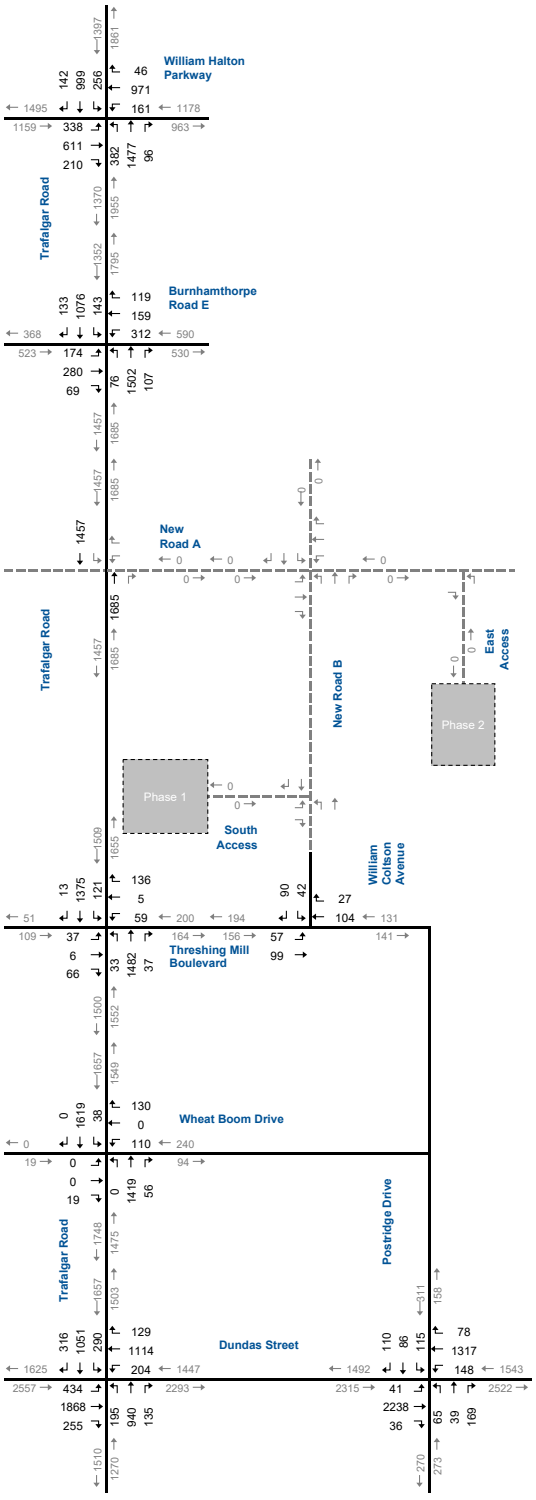
Background Traffic Volumes Phase 2 (2028)

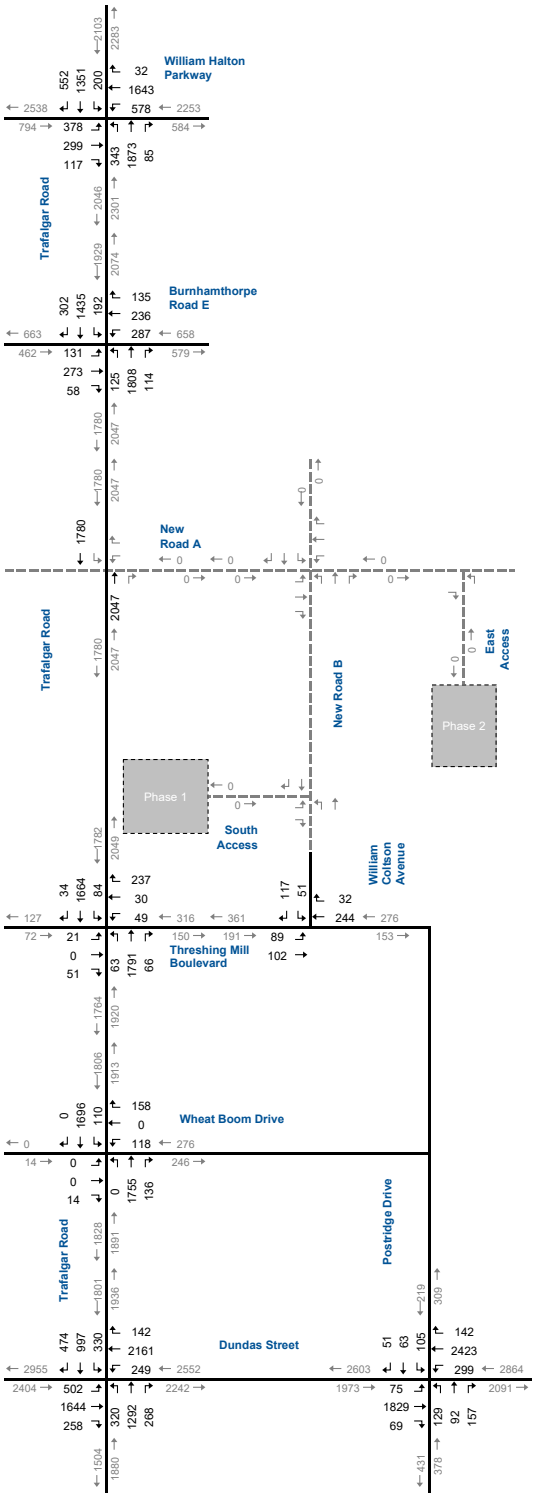
3275 Trafalgar Road, Oakville TIS
220208

Figure 4.2

AM Peak Hour



PM Peak Hour



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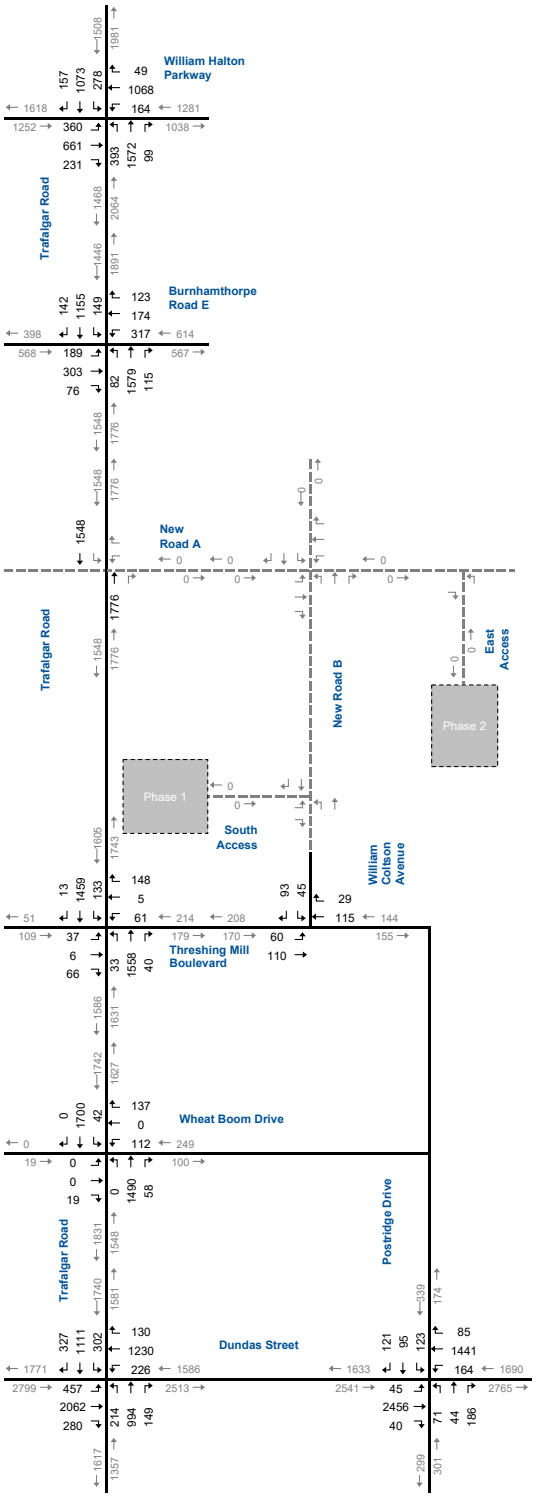
Background Traffic Volumes Five Year (2033)

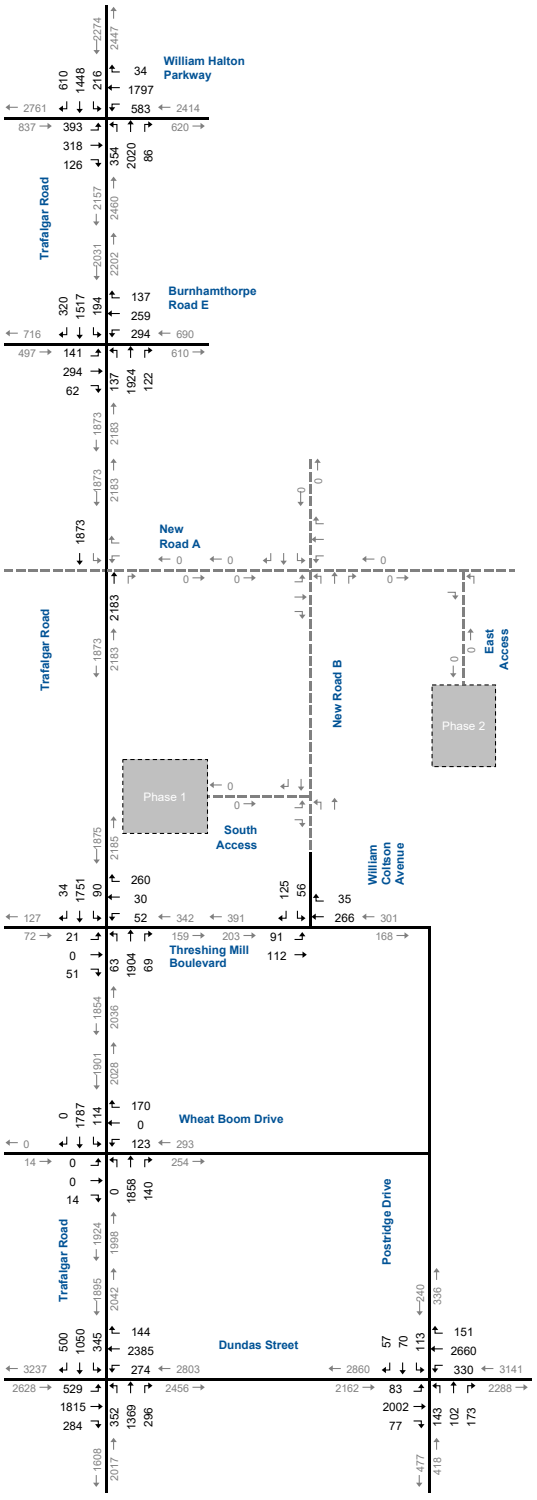
3275 Trafalgar Road, Oakville TIS
220208

Figure 4.3

AM Peak Hour



PM Peak Hour

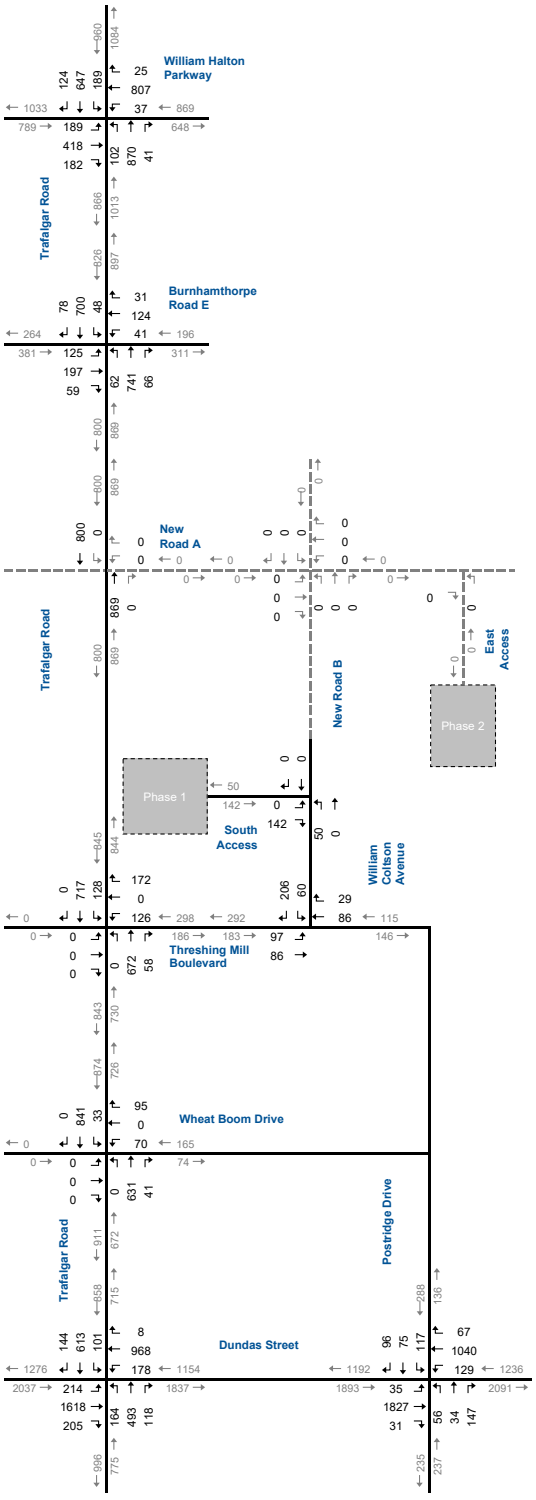


Background Traffic Volumes Ten Year (2038)

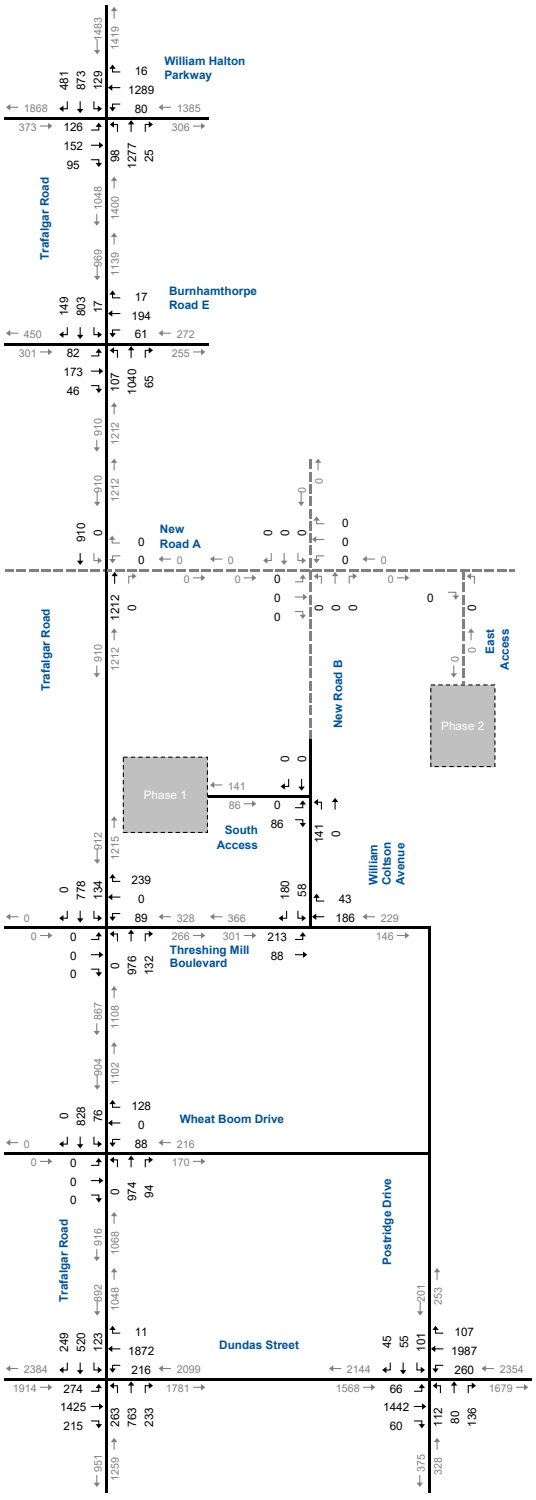
3275 Trafalgar Road, Oakville TIS
220208

Figure 4.4

AM Peak Hour



PM Peak Hour



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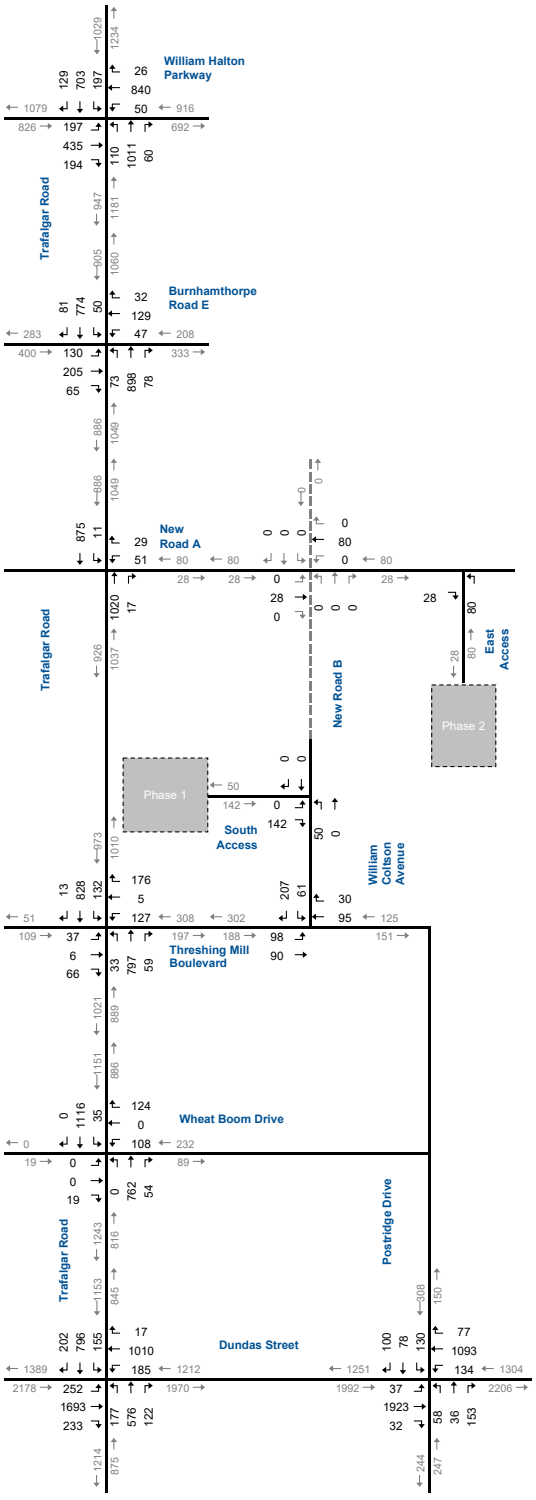
Total Traffic Volumes Phase 1 (2026)

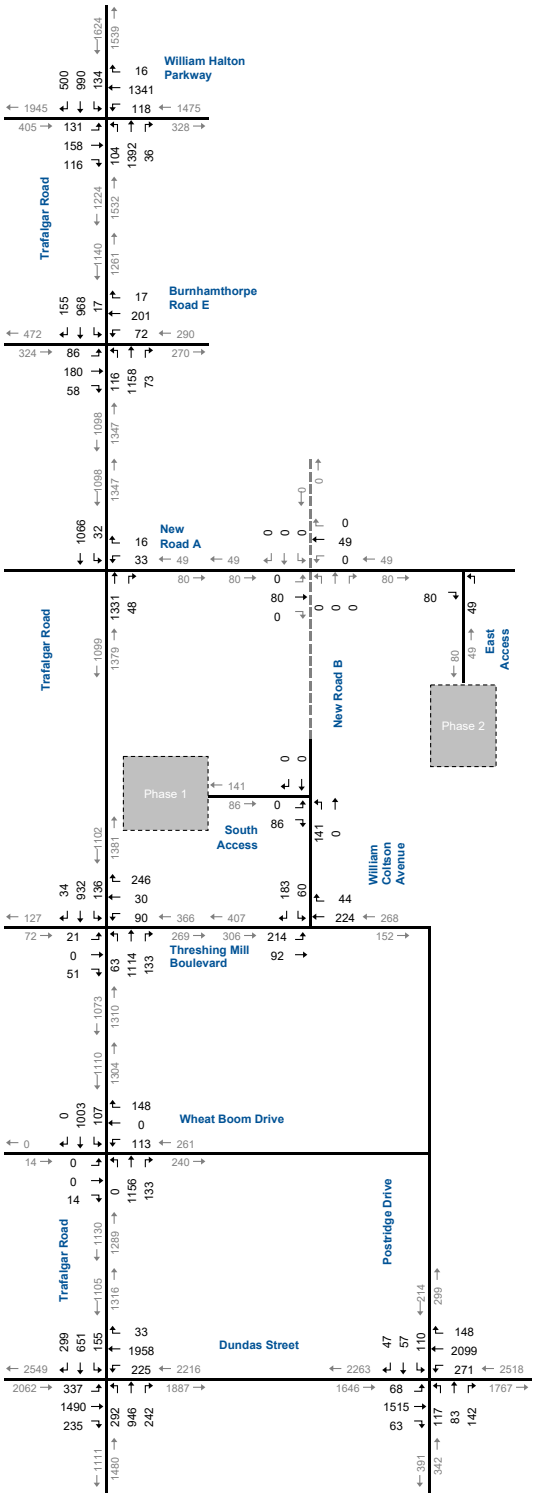
3275 Trafalgar Road, Oakville TIS
220208

Figure 4.5

AM Peak Hour



PM Peak Hour



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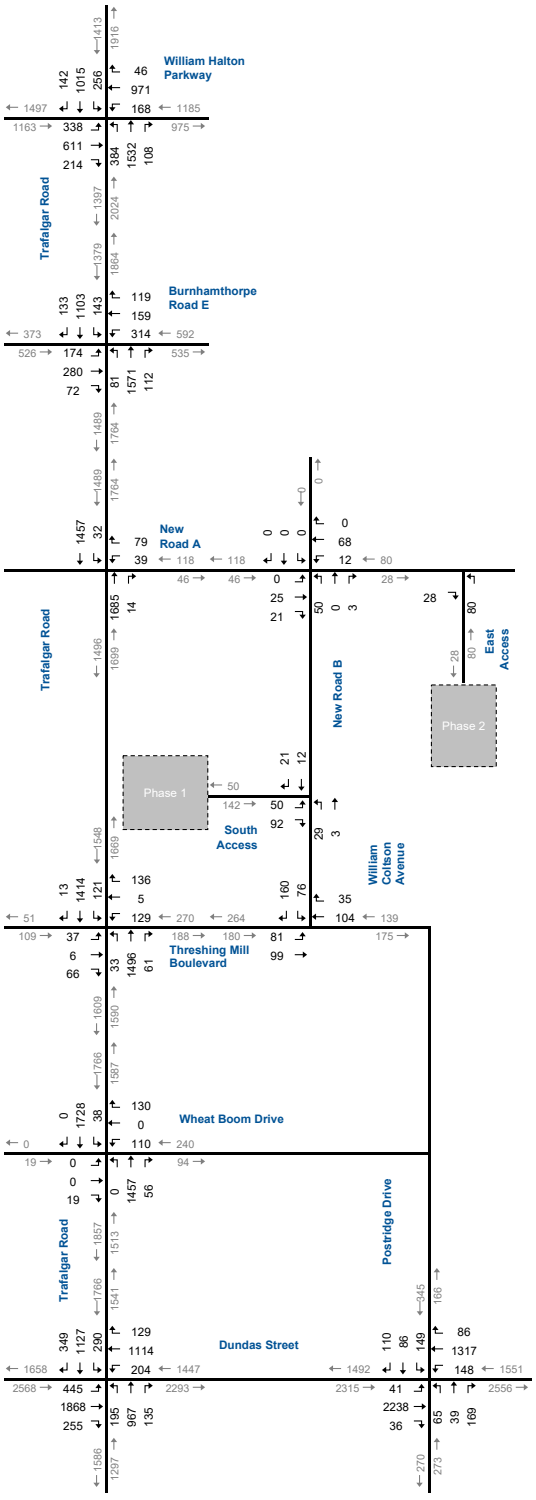
Total Traffic Volumes Phase 2 (2028)

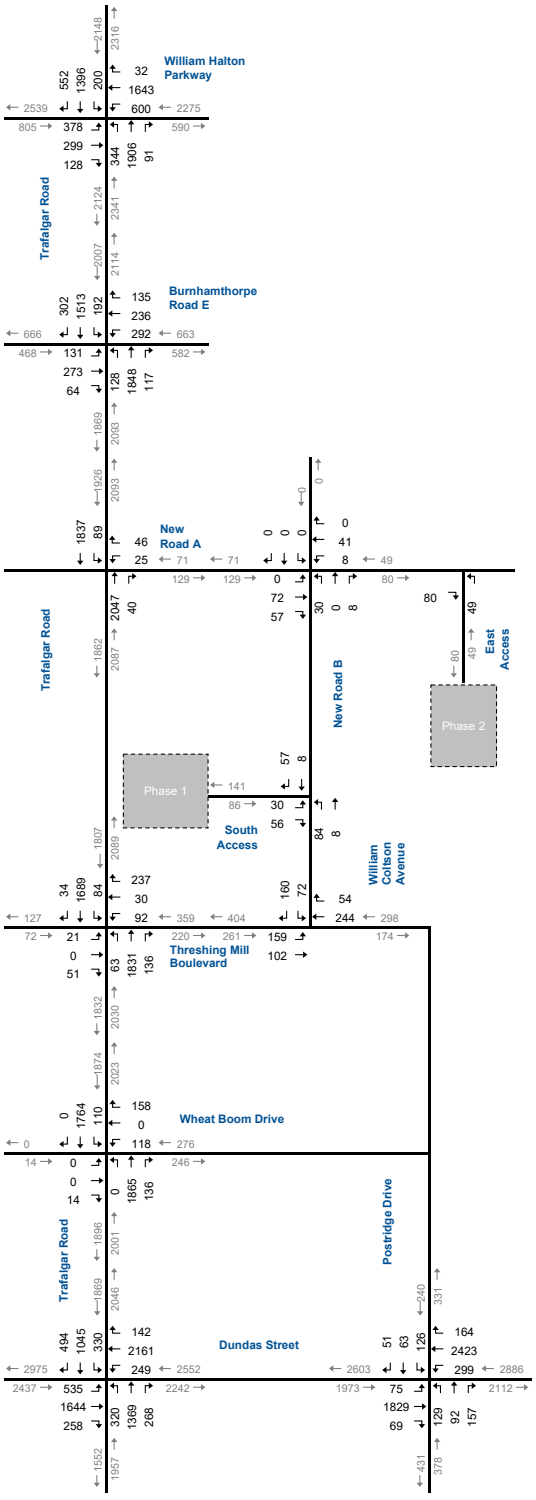
3275 Trafalgar Road, Oakville TIS
220208

Figure 4.6

AM Peak Hour



PM Peak Hour



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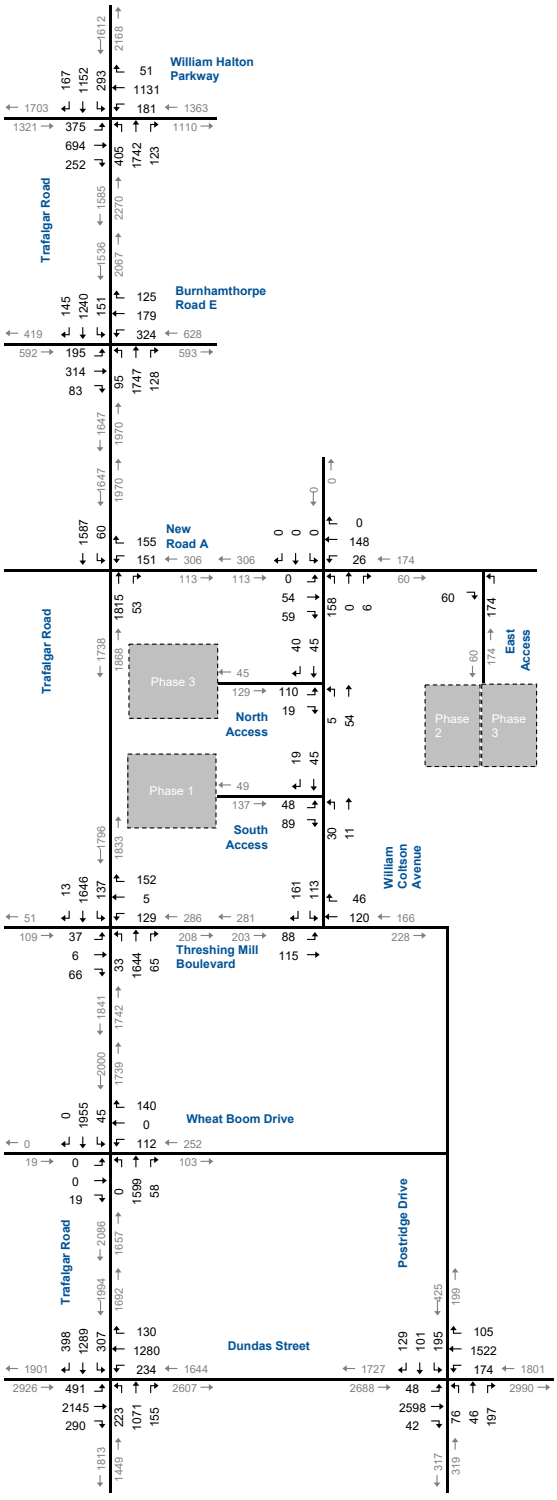
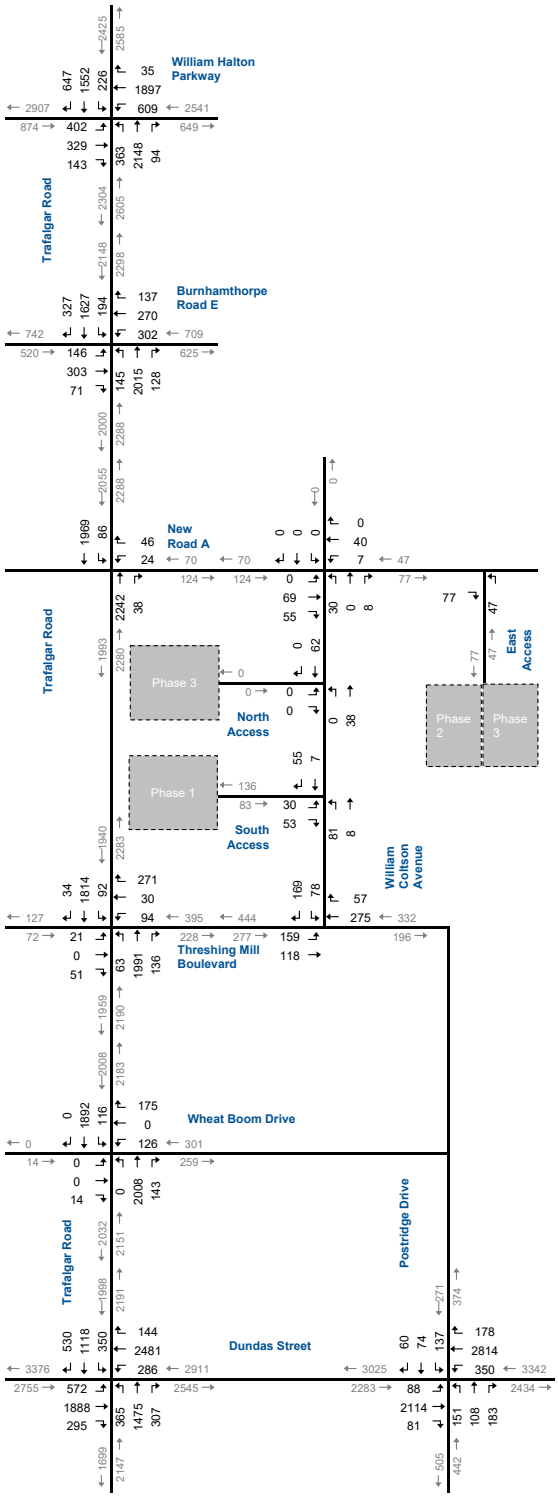
Total Traffic Volumes Five Year (2033)

AM Peak Hour



PM Peak Hour



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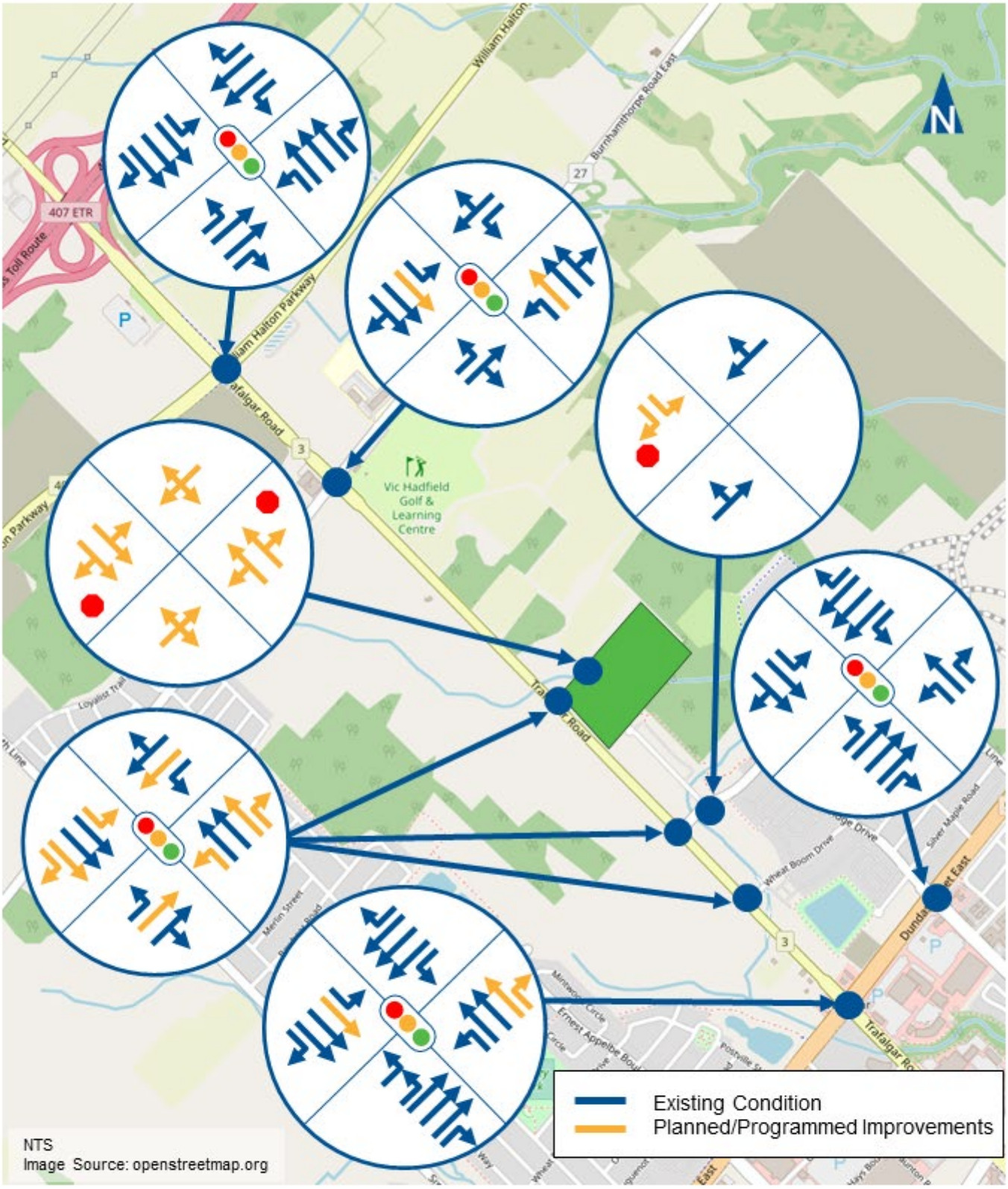
Total Traffic Volumes Ten Year (2038)

3275 Trafalgar Road, Oakville TIS
220208

Figure 4.8



Planned Lane Configuration and Traffic Control

3275 Trafalgar Road, Oakville TIS
220208

Figure 4.9

5 Operational Assessment

5.1 Level of Service Criteria

Level of service (LOS) is used to denote the different operating conditions that occur on a given roadway segment under various traffic volume loads. It is a qualitative measure that indexes the operational qualities of a roadway segment or an intersection with designations ranging from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions.

For signalized intersections, the analysis considered the operation of each lane or lane group entering the intersection and the level of service for the overall conditions at the intersection. At signalized intersections, intersections with movements operating with a v/c ratio of 0.84 or less are classified as within capacity, a v/c ratio of 0.85-1.00 as approaching capacity and a v/c ratio over 1.00 as exceeding capacity.

For unsignalized intersections, the analysis assumes that traffic on the mainline is not affected by the traffic on the side streets. The level of service is only determined for left turns from the main street and all movements from the minor street. At unsignalized intersections, an overall LOS between A-C is classified as tolerable delays; an overall LOS D-E is classified as an increased delay and an overall LOS F is classified as Significant Delays.

The evaluation criteria used to analyze intersections are based on the 2010 Highway Capacity Manual (HCM)[7].

[7] Transportation Research Board, Highway Capacity Manual, Washing, D.C. 2003.

5.2 Intersection Capacity Analysis

Intersection capacity analyses were conducted at all intersections in the study area. Analyses were conducted for the Base Conditions as well as the Phase 1 build-out (2026), Phase 2 build-out (2028), five years from Full Build-Out (2033), and 10 years from Full Build-Out (2038). Existing signal timings were used at signalized intersections.

Tables 5.1 through **5.12** summarize the capacity analyses for the study area intersections for all horizon years. The capacity analysis results are included in **Appendix F**. The following sub-sections outline the operations of the study area intersections.

5.2.1 William Halton Parkway at Trafalgar Road

2024 Base Year Operations	Exceeding Capacity	
2026 Background Operations (Ph1): 2026 Total Operations (Ph1)	Exceeding Capacity Exceeding Capacity	
2028 Background Operations (Ph2) 2028 Total Operations (Ph2)	Exceeding Capacity Exceeding Capacity	
2033 Background Operation (5-year After) 2033 Total Operations (5-year After)	Exceeding Capacity Exceeding Capacity	
2038 Background Operation (10-year After) 2038 Total Operations (10-year After)	Exceeding Capacity Exceeding Capacity	

At the intersection of William Halton Parkway and Trafalgar Road, the eastbound left-turn and westbound through movement presently operate in the LOS E-F range, while several overall movements are noted to be operating at LOS D during the weekday peak hours.

Similar operations are forecast in the background Phase 1 and 2 scenarios with eastbound left-turn and westbound through movements showing gradual increases in delay due to background traffic growth.

Under the Five-Year and Ten-Year Background conditions, northbound and southbound left-turn lanes are forecast to operate with delays in the LOS F range during the AM and PM peak hours. In addition, during the PM hours, the northbound through and southbound right are forecast to operate with delays in the LOS F range.

In terms of development traffic implications, similar levels of operation are generally expected under the Total conditions with only minor increases in delay resulting from site-generated traffic volumes. However, certain highly congested movements are forecasted to experience significant increases in delay due to the lack of capacity.

5.2.2 Burnhamthrope Road E at Trafalgar Road

2024 Base Year Operations	Within Capacity	
2026 Background Operations (Ph1): 2026 Total Operations (Ph1)	Within Capacity Within Capacity	
2028 Background Operations (Ph2) 2028 Total Operations (Ph2)	Within Capacity Within Capacity	
2033 Background Operation (5-year After) 2033 Total Operations (5-year After)	Exceeding Capacity Exceeding Capacity	
2038 Background Operation (10-year After) 2038 Total Operations (10-year After)	Exceeding Capacity Exceeding Capacity	

Individual movements at the intersection of Burnhamthrope Road E and Trafalgar Road presently operate at LOS D or better during the weekday peak hours.

Similar operations are forecast in the background Phase 1and 2 scenarios.

Under the Five-Year and Ten-Year Background conditions, a significant number of movements are projected to degrade to operate with high levels of delay, with overall intersection operations forecasted at LOS E-F during the weekday peak hours.

Regarding development traffic implications, similar levels of operation are expected under the Total conditions with site-generated traffic volumes. However, due to the highly congested forecasted operations, additional traffic significantly increases delay.

5.2.3 Threshing Mill Boulevard at Trafalgar Road

2024 Base Year Operations	Approaching Capacity	
2026 Background Operations (Ph1): 2026 Total Operations (Ph1)	Within Capacity Within Capacity	
2028 Background Operations (Ph2) 2028 Total Operations (Ph2)	Within Capacity Within Capacity	
2033 Background Operation (5-year After) 2033 Total Operations (5-year After)	Within Capacity Within Capacity	
2038 Background Operation (10-year After) 2038 Total Operations (10-year After)	Within Capacity Within Capacity	

Individual movements at the signalized intersection of Threshing Mill Boulevard and Trafalgar Road presently operate at LOS E or better during the weekday peak hours. Similar levels of operation are expected under future Background and Total traffic conditions with only a minor increase in delay resulting from site-generated traffic volumes.

5.2.4 Wheat Boom Drive at Trafalgar Road

2024 Base Year Operations	Within Capacity	
2026 Background Operations (Ph1): 2026 Total Operations (Ph1)	Approaching Capacity Approaching Capacity	
2028 Background Operations (Ph2) 2028 Total Operations (Ph2)	Approaching Capacity Approaching Capacity	
2033 Background Operation (5-year After) 2033 Total Operations (5-year After)	Approaching Capacity Approaching Capacity	
2038 Background Operation (10-year After) 2038 Total Operations (10-year After)	Approaching Capacity Approaching Capacity	

During the AM and PM peak hours, the westbound right-turn lane operates with delays in the LOS E Range.

By the five-year and 10-year background scenarios, the background traffic growth results in the westbound through-right turn operating at critical v/c levels (v/c ratios above 0.85) and the southbound left-turn operating just below critical v/c levels (v/c ratios above 0.95).

In terms of development traffic implications, similar levels of operation are expected under the Total conditions with only minor increases in delay resulting from site-generated traffic volumes. The exception is the southbound left turn in the 10-year horizon, which degrades to critical v/c ratio levels with the addition of site traffic.

5.2.5 Dundas Street at Trafalgar Road

2024 Base Year Operations	Approaching Capacity	
2026 Background Operations (Ph1): 2026 Total Operations (Ph1)	Approaching Capacity Approaching Capacity	
2028 Background Operations (Ph2) 2028 Total Operations (Ph2)	Exceeding Capacity Exceeding Capacity	
2033 Background Operation (5-year After) 2033 Total Operations (5-year After)	Exceeding Capacity Exceeding Capacity	
2038 Background Operation (10-year After) 2038 Total Operations (10-year After)	Exceeding Capacity Exceeding Capacity	

At the intersection of Dundas Street and Trafalgar Road, the eastbound left-turn, westbound through movement, and northbound through movement presently operate at LOS E, while several overall movements are noted to be operating at LOS D during the weekday peak hours.

The widening of Trafalgar Road improves operations in the northbound/southbound direction; however under the Phase 2

Background conditions, the westbound through and northbound left-turn movements degrade to the LOS F range.

Under the Five-Year and Ten-Year Background conditions, a significant number of movements are projected to degrade to operate with high levels of delay, with overall intersection operations forecasted at LOS E-F during the weekday peak hours.

Regarding development traffic implications, similar levels of operation are expected under the Total conditions with site-generated traffic volumes.

5.2.6 Dundas Street at Postridge Drive

2024 Base Year Operations	Approaching Capacity	
2026 Background Operations (Ph1): 2026 Total Operations (Ph1)	Approaching Capacity Approaching Capacity	
2028 Background Operations (Ph2) 2028 Total Operations (Ph2)	Approaching Capacity Approaching Capacity	
2033 Background Operation (5-year After) 2033 Total Operations (5-year After)	Exceeding Capacity Exceeding Capacity	
2038 Background Operation (10-year After) 2038 Total Operations (10-year After)	Exceeding Capacity Exceeding Capacity	

Individual movements at the intersection of Dundas Street and Postridge Drive presently operate at LOS D or better during the weekday peak hours.

Similar operations are forecast in the background Phase 1 and 2 scenarios.

Under the Five-Year and Ten-Year Background conditions, multiple eastbound and westbound movements are projected to degrade to operate with high levels of delay, with overall intersection operations forecasted at LOS E-F during the weekday peak hours.

In terms of development traffic implications, similar levels of operation are expected under the Total conditions with only minor increases in delay resulting from site-generated traffic volumes.

5.2.7 Threshing Mill Boulevard at William Coltson Avenue

2024 Base Year Operations	Within Capacity	
2026 Background Operations (Ph1): 2026 Total Operations (Ph1)	Within Capacity Within Capacity	
2028 Background Operations (Ph2) 2028 Total Operations (Ph2)	Within Capacity Within Capacity	

2033 Background Operation (5-year After)	Within Capacity	
2033 Total Operations (5-year After)	Within Capacity	
2038 Background Operation (10-year After)	Within Capacity	
2038 Total Operations (10-year After)	Within Capacity	

Individual movements presently operate at LOS A during the weekday peak hours. Similar levels of operation are expected under future Background and Total traffic conditions, with delays forecast to be in the LOS C range or better.

5.2.8 New Road A at Trafalgar Road

2026 Total Operations (Ph1)	Within Capacity	
2028 Total Operations (Ph2)	Within Capacity	
2033 Total Operations (5-year After)	Within Capacity	
2038 Total Operations (10-year After)	Within Capacity	

When New Road A opens in the Phase 2 Total scenario, the westbound approach will operate at a LOS E and v/c ratios under 0.80. Delays for the westbound approach are likely the result of the high volume of along Trafalgar Road.

5.2.9 New Road A at New Road B

2026 Total Operations (Ph1)	Within Capacity	
2028 Total Operations (Ph2)	Within Capacity	
2033 Total Operations (5-year After)	Within Capacity	
2038 Total Operations (10-year After)	Within Capacity	

Individual movements at the new unsignalized intersection of New Road A and New Road B are forecast to operate at LOS B during the weekday peak hours. Delays from the site traffic are not expected to exceed 15 seconds during the future horizons.

5.2.10 Development Accesses

2026 Total Operations (Ph1)	Within Capacity	
2028 Total Operations (Ph2)	Within Capacity	
2033 Total Operations (5-year After)	Within Capacity	
2038 Total Operations (10-year After)	Within Capacity	

Under the future traffic conditions, the accesses are expected to operate at LOS A or better during the weekday peak hours under the Total conditions.

TABLE 5.1: AM PEAK HOURS OPERATIONS – 2024-2038 (1/9)

Analysis Period	Intersection	Scenario	MOE	Direction / Movement / Approach																
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Overall
AM Peak Hour	William Halton Parkway & Trafalgar Road	Base	LOS	F	D	D	E	D	E	D	E	B	C	C	C	B	C	C	C	D
			Delay	117	40	40	59	36	67	40	65	18	25	21	24	18	21	21	21	41
			V/C	1.03	0.39	0.37		0.09	0.93	0.06		0.22	0.35	0.03		0.47	0.25	0.18		
			Q	94	69	19		11	157	0		21	65	0		38	50	12		
		Background Phase 1	LOS	F	D	D	E	D	E	D	E	B	C	C	C	C	C	C	C	D
			Delay	153	41	41	68	36	74	39	72	19	27	22	26	21	23	21	22	45
			V/C	1.14	0.42	0.41		0.12	0.97	0.06		0.26	0.45	0.05		0.55	0.31	0.19		
			Q	113	--	56		146	--	185		187	--	70		140	--	163		
		Background Phase 2	LOS	F	D	D	E	D	E	D	E	B	C	C	C	C	C	C	C	D
			Delay	171	41	42	73	36	79	39	76	19	28	22	27	24	23	22	23	47
			V/C	1.19	0.43	0.43		0.16	0.99	0.07		0.28	0.51	0.07		0.62	0.33	0.19		
			Q	110	--	55		143	--	185		187	--	67		136	--	163		
		Background 5 Year	LOS	F	D	D	F	D	F	D	F	F	D	C	E	F	C	C	D	F
			Delay	547	49	47	194	45	129	40	114	141	36	23	56	143	28	24	49	94
			V/C	2.08	0.67	0.52		0.68	1.14	0.12		1.18	0.79	0.14		1.16	0.51	0.23		
			Q	13	--	52		109	--	181		46	--	56		34	--	162		
		Background 10 Year	LOS	F	D	D	F	D	F	D	F	F	D	C	E	F	C	C	E	F
			Delay	608	51	48	211	50	176	40	155	183	39	23	66	216	29	25	63	113
			V/C	2.22	0.73	0.58		0.74	1.26	0.13		1.29	0.84	0.15		1.34	0.54	0.25		
			Q	-3	--	41		101	--	180		19	--	55		18	--	162		
		Total Phase 1	LOS	F	D	D	E	D	E	D	E	B	C	C	C	C	C	C	C	D
			Delay	138	41	41	64	36	71	39	69	19	27	22	26	21	23	21	22	43
			V/C	1.10	0.41	0.41		0.14	0.95	0.06		0.26	0.46	0.06		0.55	0.31	0.19		
			Q	116	--	56		145	--	185		188	--	69		141	--	163		
		Total Phase 2	LOS	F	D	D	E	D	E	D	E	B	C	C	C	C	C	C	C	D
			Delay	171	42	42	73	36	79	39	75	19	29	22	28	25	23	22	23	47
			V/C	1.19	0.44	0.44		0.19	0.99	0.07		0.29	0.54	0.09		0.65	0.33	0.19		
			Q	110	--	55		141	--	185		186	--	64		131	--	163		
		Total 5 Year	LOS	F	D	D	F	D	F	D	F	F	D	C	E	F	C	C	D	F
			Delay	547	49	47	193	47	129	40	114	148	38	23	58	161	28	24	52	95
			V/C	2.08	0.67	0.54		0.71	1.14	0.12		1.20	0.82	0.16		1.20	0.51	0.23		
			Q	13	--	50		104	--	181		43	--	53		34	--	162		
		Total 10 Year	LOS	F	D	D	F	D	F	D	F	F	D	C	E	F	C	C	E	F
			Delay	608	51	49	210	53	176	40	155	192	41	23	68	236	29	25	67	114
			V/C	2.22	0.73	0.59		0.77	1.26	0.13		1.31	0.87	0.16		1.38	0.55	0.25		
			Q	-3	--	39		105	--	180		16	--	52		18	--	162		

TABLE 5.2: AM PEAK HOURS OPERATIONS – 2024-2038 (2/9)

Analysis Period	Intersection	Scenario	MOE	Direction / Movement / Approach																
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Overall
AM Peak Hour	Burnhamthrope Road E & Trafalgar Road	Base	LOS	D	D	>	D	D	D	>	D	B	B	>	B	A	A	>	A	C
			Delay	52	45	>	47	53	41	>	43	12	14	>	13	8	9	>	9	20
			V/C	0.57	0.67	>		0.26	0.42	>		0.13	0.37	>		0.10	0.34	>		
			Q	0	--	>		16	--	>		140	--	>		171	--	>		
		Background Phase 1	LOS	D	D	>	D	D	D	>	D	A	A	>	A	A	A	>	A	B
			Delay	51	44	>	47	53	40	>	43	1	1	>	1	8	9	>	8	15
			V/C	0.58	0.69	>		0.29	0.42	>		0.15	0.31	>		0.10	0.28	>		
			Q	-1	--	>		14	--	>		137	--	>		171	--	>		
		Background Phase 2	LOS	D	D	>	D	D	D	>	D	A	A	>	A	A	A	>	A	B
			Delay	51	44	>	46	53	39	>	42	1	1	>	1	8	9	>	9	15
			V/C	0.59	0.69	>		0.31	0.42	>		0.18	0.38	>		0.11	0.31	>		
			Q	-3	--	>		13	--	>		131	--	>		170	--	>		
		Background 5 Year	LOS	D	C	>	D	F	C	>	F	D	D	>	D	C	C	>	C	D
			Delay	47	32	>	37	218	30	>	129	40	48	>	45	34	21	>	22	48
			V/C	0.62	0.58	>		1.32	0.48	>		0.43	0.90	>		0.80	0.56	>		
			Q	-17	--	>		-137	--	>		102	--	>		138	--	>		
		Background 10 Year	LOS	D	C	>	D	F	C	>	F	D	E	>	D	D	C	>	C	E
			Delay	53	33	>	40	289	30	>	164	47	60	>	55	40	22	>	24	58
			V/C	0.71	0.63	>		1.48	0.51	>		0.51	0.97	>		0.84	0.60	>		
			Q	-32	--	>		-146	--	>		93	--	>		135	--	>		
		Total Phase 1	LOS	D	D	>	D	D	D	>	D	A	A	>	A	A	A	>	A	B
			Delay	51	44	>	47	54	40	>	43	1	1	>	1	8	9	>	8	15
			V/C	0.58	0.69	>		0.29	0.42	>		0.16	0.33	>		0.10	0.28	>		
			Q	-1	--	>		14	--	>		136	--	>		171	--	>		
		Total Phase 2	LOS	D	D	>	D	D	D	>	D	A	A	>	A	A	A	>	A	B
			Delay	51	44	>	46	54	39	>	43	1	1	>	1	8	9	>	9	14
			V/C	0.59	0.70	>		0.34	0.42	>		0.20	0.41	>		0.12	0.32	>		
			Q	-3	--	>		12	--	>		129	--	>		170	--	>		
		Total 5 Year	LOS	D	C	>	D	F	C	>	F	D	E	>	D	D	C	>	C	D
			Delay	47	32	>	37	227	30	>	134	43	55	>	50	37	22	>	23	51
			V/C	0.62	0.59	>		1.34	0.48	>		0.47	0.95	>		0.83	0.57	>		
			Q	-17	--	>		-138	--	>		99	--	>		138	--	>		
		Total 10 Year	LOS	D	C	>	D	F	C	>	F	D	E	>	E	D	C	>	C	E
			Delay	53	33	>	40	302	30	>	171	52	72	>	66	43	23	>	24	64
			V/C	0.71	0.64	>		1.51	0.51	>		0.56	1.02	>		0.84	0.61	>		
			Q	-32	--	>		-149	--	>		90	--	>		135	--	>		

TABLE 5.3: AM PEAK HOURS OPERATIONS – 2024-2038 (3/9)

Analysis Period	Intersection	Scenario	MOE	Direction / Movement / Approach																
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Overall
AM Peak Hour	Threshing Mill Boulevard & Trafalgar Road	Base	LOS					D		E	E		A	>	A	<	A		A	A
			Delay					52		63	61		0	>	0	<	4		3	7
			V/C					0.17		0.77			0.23	>		<	0.34			
			Q					--		--			--	>		<	--			
		Background Phase 1	LOS	A	A	>	A	D	D	>	E	A	A	A	A	A	A	A	A	A
			Delay	0	0	>	0	51	53	>	58	0	0	0	0	0	1	0	0	6
			V/C	0.00	0.00	>		0.28	0.79	>		0.00	0.21	0.03		0.18	0.22	0.00		
			Q	25	--	>		--	--	>		75	--	45		58	--	45		
		Background Phase 2	LOS	E	D	>	D	D	D	>	D	A	A	A	A	A	A	A	A	A
			Delay	56	47	>	51	54	50	>	53	0	0	0	0	0	1	0	0	8
			V/C	0.32	0.35	>		0.38	0.64	>		0.06	0.25	0.03		0.22	0.25	0.01		
			Q	5	--	>		--	--	>		74	--	45		57	--	45		
		Background 5 Year	LOS	E	D	>	D	D	D	>	D	A	A	A	A	A	A	A	A	A
			Delay	56	47	>	51	53	49	>	53	0	0	0	0	0	5	0	1	5
			V/C	0.32	0.33	>		0.38	0.66	>		0.11	0.48	0.04		0.43	0.44	0.01		
			Q	5	--	>		--	--	>		74	--	45		-3	--	45		
		Background 10 Year	LOS	E	D	>	D	D	D	>	D	A	A	A	A	A	A	A	A	A
			Delay	56	46	>	50	53	49	>	52	0	1	0	1	0	7	0	1	5
			V/C	0.33	0.31	>		0.38	0.68	>		0.11	0.51	0.04		0.51	0.47	0.01		
			Q	5	--	>		--	--	>		74	--	45		-16	--	45		
		Total Phase 1	LOS	A	A	>	A	D	D	>	E	A	A	A	A	A	A	A	A	A
			Delay	0	0	>	0	51	50	>	57	0	0	0	0	0	1	0	0	9
			V/C	0.00	0.00	>		0.51	0.83	>		0.00	0.22	0.06		0.24	0.23	0.00		
			Q	25	--	>		--	--	>		75	--	45		54	--	45		
		Total Phase 2	LOS	D	D	>	D	D	D	>	D	A	A	A	A	A	A	A	A	A
			Delay	53	42	>	46	55	45	>	51	0	0	0	0	0	2	0	0	9
			V/C	0.27	0.25	>		0.62	0.64	>		0.07	0.27	0.06		0.29	0.28	0.01		
			Q	6	--	>		--	--	>		74	--	45		50	--	45		
		Total 5 Year	LOS	D	D	>	D	D	D	>	D	A	A	A	A	A	A	A	A	A
			Delay	50	42	>	45	55	44	>	50	0	1	0	1	0	6	0	1	6
			V/C	0.21	0.25	>		0.63	0.49	>		0.12	0.51	0.06		0.47	0.48	0.01		
			Q	6	--	>		--	--	>		74	--	45		-5	--	45		
		Total 10 Year	LOS	D	D	>	D	D	D	>	D	A	A	A	A	A	A	A	A	A
			Delay	51	42	>	45	55	44	>	50	0	1	0	1	0	8	0	1	6
			V/C	0.22	0.24	>		0.63	0.53	>		0.12	0.54	0.07		0.55	0.51	0.01		
			Q	6	--	>		--	--	>		74	--	45		-18	--	45		

TABLE 5.4: AM PEAK HOURS OPERATIONS – 2024-2038 (4/9)

Analysis Period	Intersection	Scenario	MOE	Direction / Movement / Approach																
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Overall
AM Peak Hour	Wheat Boom Drive & Trafalgar Road	Base	LOS					D		E	E		A	>	A	<	A		A	A
			Delay				0	52		60	59		3	>	3	<	1		1	5
			V/C					0.16		0.63			0.22	>		<	0.28			
			Q					--		--			--	>		<	--			
		Background Phase 1	LOS	A	A	>	A	D	D	>	E	A	A	A	A	A	A	A	A	A
			Delay	0	0	>	0	52	53	>	59	0	3	3	3	0	0	0	0	7
			V/C	0.00	0.00	>		0.38	0.79	>		0.00	0.19	0.04		0.07	0.24	0.00		
			Q	25	--	>		--	--	>		75	--	42		61	--	45		
		Background Phase 2	LOS	A	D	>	D	D	D	>	D	A	A	A	A	A	A	A	A	A
			Delay	0	44	>	45	53	49	>	55	0	5	4	5	0	1	0	0	8
			V/C	0.00	0.09	>		0.58	0.73	>		0.00	0.24	0.06		0.08	0.33	0.00		
			Q	25	--	>		--	--	>		75	--	41		60	--	45		
		Background 5 Year	LOS	A	D	>	D	D	D	>	E	A	A	A	A	A	A	A	A	A
			Delay	0	44	>	44	53	49	>	56	0	6	4	6	2	3	0	1	7
			V/C	0.00	0.09	>		0.59	0.76	>		0.00	0.47	0.06		0.18	0.54	0.00		
			Q	25	--	>		--	--	>		75	--	41		58	--	45		
		Background 10 Year	LOS	A	D	>	D	D	D	>	E	A	A	A	A	A	A	A	A	A
			Delay	0	44	>	44	53	49	>	57	0	7	4	6	2	4	0	1	7
			V/C	0.00	0.09	>		0.59	0.79	>		0.00	0.49	0.06		0.21	0.57	0.00		
			Q	25	--	>		--	--	>		75	--	41		56	--	45		
		Total Phase 1	LOS	A	A	>	A	D	D	>	E	A	A	A	A	A	A	A	A	A
			Delay	0	0	>	0	52	53	>	59	0	3	3	3	0	0	0	0	7
			V/C	0.00	0.00	>		0.38	0.79	>		0.00	0.20	0.04		0.06	0.27	0.00		
			Q	25	--	>		--	--	>		75	--	42		62	--	45		
		Total Phase 2	LOS	A	D	>	D	D	D	>	D	A	A	A	A	A	A	A	A	A
			Delay	0	44	>	45	53	49	>	55	0	5	4	5	0	1	0	0	8
			V/C	0.00	0.09	>		0.58	0.73	>		0.00	0.25	0.06		0.09	0.37	0.00		
			Q	25	--	>		--	--	>		75	--	41		60	--	45		
		Total 5 Year	LOS	A	D	>	D	D	D	>	E	A	A	A	A	A	A	A	A	A
			Delay	0	44	>	44	53	49	>	56	0	6	4	6	2	4	0	1	7
			V/C	0.00	0.09	>		0.59	0.76	>		0.00	0.48	0.06		0.18	0.58	0.00		
			Q	25	--	>		--	--	>		75	--	41		58	--	45		
		Total 10 Year	LOS	A	D	>	D	D	D	>	E	A	A	A	A	A	A	A	A	A
			Delay	0	44	>	44	53	49	>	57	0	7	4	7	2	4	0	1	7
			V/C	0.00	0.09	>		0.59	0.79	>		0.00	0.50	0.06		0.21	0.61	0.00		
			Q	25	--	>		--	--	>		75	--	41		57	--	45		

TABLE 5.5: AM PEAK HOURS OPERATIONS – 2024-2038 (5/9)

Analysis Period	Intersection	Scenario	MOE	Direction / Movement / Approach																
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Overall
AM Peak Hour	Dundas Street & Trafalgar Road	Base	LOS	E	C	C	C	C	C	B	C	D	D	>	D	D	D	D	D	C
			Delay	64	27	21	30	35	23	19	25	40	49	>	47	41	50	45	48	34
			V/C	0.75	0.65	0.26		0.74	0.43	0.01		0.62	0.72	>		0.45	0.72	0.31		
			Q	67	--	82		124	--	90		129	--	>		40	--	65		
		Background Phase 1	LOS	E	C	C	C	D	C	B	C	D	D	>	D	D	D	D	D	C
			Delay	64	28	21	31	41	24	19	27	40	44	>	43	39	49	47	48	35
			V/C	0.77	0.68	0.28		0.79	0.45	0.01		0.62	0.49	>		0.39	0.67	0.42		
			Q	64	--	80		121	--	90		127	--	>		39	--	59		
		Background Phase 2	LOS	E	C	C	D	E	C	C	C	D	D	>	D	D	D	D	D	D
			Delay	65	35	26	37	57	29	23	33	41	42	>	41	37	48	44	46	39
			V/C	0.79	0.78	0.35		0.86	0.53	0.03		0.68	0.50	>		0.51	0.72	0.49		
			Q	59	--	76		109	--	90		127	--	>		31	--	47		
		Background 5 Year	LOS	F	E	C	E	F	D	D	E	D	D	>	D	F	D	D	E	E
			Delay	96	63	33	66	129	44	36	55	49	40	>	41	180	48	47	71	60
			V/C	0.99	1.01	0.44		1.10	0.77	0.33		0.82	0.69	>		1.24	0.84	0.72		
			Q	7	--	68		83	--	87		101	--	>		-67	--	27		
		Background 10 Year	LOS	F	F	D	F	F	D	D	E	E	D	>	D	F	D	D	E	E
			Delay	110	116	36	107	172	51	37	67	58	40	>	42	207	50	47	76	79
			V/C	1.04	1.15	0.50		1.22	0.89	0.34		0.88	0.71	>		1.31	0.87	0.74		
			Q	0	--	59		69	--	88		88	--	>		-80	--	21		
		Total Phase 1	LOS	E	C	C	C	D	C	B	C	D	D	>	D	D	D	D	D	D
			Delay	64	29	22	32	43	25	20	28	40	43	>	42	38	49	46	47	35
			V/C	0.77	0.70	0.28		0.80	0.47	0.01		0.63	0.48	>		0.38	0.69	0.46		
			Q	63	--	80		121	--	90		129	--	>		40	--	53		
		Total Phase 2	LOS	E	D	C	D	E	C	C	D	D	D	>	D	D	D	D	D	D
			Delay	65	37	27	39	61	31	24	36	41	40	>	40	36	47	44	45	40
			V/C	0.80	0.81	0.36		0.88	0.55	0.03		0.70	0.50	>		0.55	0.75	0.55		
			Q	57	--	76		97	--	90		126	--	>		30	--	47		
		Total 5 Year	LOS	F	E	C	E	F	D	D	E	D	D	>	D	F	D	D	E	E
			Delay	102	70	34	72	129	45	36	56	53	40	>	41	180	50	50	71	63
			V/C	1.01	1.03	0.45		1.10	0.79	0.34		0.85	0.70	>		1.24	0.88	0.78		
			Q	4	--	67		84	--	87		100	--	>		-70	--	18		
		Total 10 Year	LOS	F	F	D	F	F	D	D	E	E	D	>	D	F	D	D	E	F
			Delay	118	126	37	115	172	54	38	69	63	39	>	42	208	53	50	78	83
			V/C	1.07	1.17	0.51		1.22	0.91	0.35		0.90	0.71	>		1.31	0.91	0.79		
			Q	-4	--	58		69	--	88		87	--	>		-83	--	11		

TABLE 5.6: AM PEAK HOURS OPERATIONS – 2024-2038 (6/9)

Analysis Period	Intersection	Scenario	MOE	Direction / Movement / Approach																
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Overall
AM Peak Hour	Dundas Street & Postridge Drive	Base	LOS	C	C	B	C	C	B	B	B	D	C	D	D	D	C	>	C	C
			Delay	21	28	17	28	32	15	12	16	39	32	37	37	36	35	>	35	25
			V/C	0.13	0.75	0.04		0.67	0.39	0.07		0.16	0.06	0.31		0.17	0.21	>		
			Q	124	--	89		126	--	79		37	--	--		--	--	>		
		Background Phase 1	LOS	C	C	B	C	D	B	B	B	D	C	D	D	D	D	>	D	C
			Delay	22	30	17	29	40	15	12	17	39	32	37	37	38	35	>	36	26
			V/C	0.14	0.80	0.05		0.75	0.41	0.09		0.17	0.06	0.33		0.26	0.15	>		
			Q	125	--	89		121	--	79		36	--	--		--	--	>		
		Background Phase 2	LOS	C	C	B	C	D	B	B	B	D	C	D	D	D	D	>	D	C
			Delay	23	30	17	30	44	15	12	18	40	32	37	37	38	35	>	36	27
			V/C	0.15	0.82	0.05		0.79	0.42	0.10		0.18	0.07	0.34		0.29	0.16	>		
			Q	125	--	90		118	--	78		36	--	--		--	--	>		
		Background 5 Year	LOS	C	D	B	D	E	B	B	C	D	C	D	D	D	D	>	D	D
			Delay	28	49	18	48	73	17	12	22	41	33	38	38	39	36	>	36	37
			V/C	0.22	0.99	0.05		0.87	0.51	0.11		0.21	0.07	0.37		0.31	0.17	>		
			Q	125	--	90		109	--	78		33	--	--		--	--	>		
		Background 10 Year	LOS	C	E	B	E	F	B	B	C	D	C	D	D	D	D	>	D	D
			Delay	33	79	18	78	102	17	12	25	42	33	39	39	40	36	>	37	54
			V/C	0.28	1.08	0.06		0.98	0.56	0.12		0.24	0.08	0.41		0.35	0.19	>		
			Q	125	--	90		97	--	78		31	--	--		--	--	>		
		Total Phase 1	LOS	C	C	B	C	D	B	B	B	D	C	D	D	D	C	>	D	C
			Delay	22	29	17	29	37	15	12	17	39	32	37	37	39	35	>	36	26
			V/C	0.14	0.78	0.04		0.72	0.40	0.09		0.17	0.06	0.32		0.31	0.15	>		
			Q	125	--	89		123	--	78		36	--	--		--	--	>		
		Total Phase 2	LOS	C	C	B	C	D	B	B	B	D	C	D	D	D	D	>	D	C
			Delay	23	31	17	30	45	15	12	18	40	32	37	37	40	35	>	37	27
			V/C	0.15	0.82	0.05		0.79	0.42	0.11		0.18	0.07	0.34		0.35	0.16	>		
			Q	125	--	90		118	--	78		36	--	--		--	--	>		
		Total 5 Year	LOS	C	D	B	D	E	B	B	C	D	C	D	D	D	D	>	D	D
			Delay	28	49	18	48	73	17	12	22	41	33	38	38	41	36	>	38	37
			V/C	0.22	0.99	0.05		0.87	0.51	0.12		0.21	0.07	0.37		0.41	0.17	>		
			Q	125	--	90		109	--	78		33	--	--		--	--	>		
		Total 10 Year	LOS	C	E	B	E	F	B	B	C	D	C	D	D	D	D	>	D	D
			Delay	33	79	18	78	102	17	12	25	42	33	39	39	43	36	>	38	54
			V/C	0.28	1.08	0.06		0.98	0.56	0.13		0.24	0.08	0.41		0.44	0.19	>		
			Q	125	--	90		97	--	77		31	--	--		--	--	>		

TABLE 5.7: AM PEAK HOURS OPERATIONS – 2024-2038 (7/9)

Analysis Period	Intersection	Scenario	MOE	Direction / Movement / Approach																Overall
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	Threshing Mill Boulevard & William Coltson Avenue	Base	LOS	<	A		A		A	>	A						A	>	A	
			Delay	<	8		2		0	>	0						10	>	10	
			V/C	<	0.03				0.00	>							0.07	>		
			Q	<	--				--	>							--	>		
		Background Phase 1	LOS	<	A		A		A	>	A						B	>	B	
			Delay	<	8		3		0	>	0						11	>	11	
			V/C	<	0.05				0.00	>							0.18	>		
			Q	<	--				--	>							--	>		
		Background Phase 2	LOS	<	A		A		A	>	A						B	>	B	
			Delay	<	8		3		0	>	0						11	>	11	
			V/C	<	0.05				0.00	>							0.18	>		
			Q	<	--				--	>							--	>		
		Background 5 Year	LOS	<	A		A		A	>	A						B	>	B	
			Delay	<	8		3		0	>	0						11	>	11	
			V/C	<	0.05				0.00	>							0.20	>		
			Q	<	--				--	>							--	>		
		Background 10 Year	LOS	<	A		A		A	>	A						B	>	B	
			Delay	<	8		3		0	>	0						11	>	11	
			V/C	<	0.05				0.00	>							0.21	>		
			Q	<	--				--	>							--	>		
		Total Phase 1	LOS	<	A		A		A	>	A						B	>	B	
			Delay	<	8		4		0	>	0						13	>	11	
			V/C	<	0.08				0.00	>							0.13	>		
			Q	<	--				--	>							--	>		
		Total Phase 2	LOS	<	A		A		A	>	A						B	>	B	
			Delay	<	8		4		0	>	0						13	>	11	
			V/C	<	0.09				0.00	>							0.14	>		
			Q	<	--				--	>							--	>		
		Total 5 Year	LOS	<	A		A		A	>	A						B	>	B	
			Delay	<	8		4		0	>	0						13	>	11	
			V/C	<	0.07				0.00	>							0.17	>		
			Q	<	--				--	>							--	>		
		Total 10 Year	LOS	<	A		A		A	>	A						B	>	B	
			Delay	<	8		4		0	>	0						14	>	11	
			V/C	<	0.08				0.00	>							0.18	>		
			Q	<	--				--	>							--	>		

TABLE 5.8: AM PEAK HOURS OPERATIONS – 2024-2038 (8/9)

Analysis Period	Intersection	Scenario	MOE	Direction / Movement / Approach																
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Overall
AM Peak Hour	New Road A & Trafalgar Road	Total Phase 1	LOS	A	A	>	A	A	A	>	A	A	A	A	A	A	A	A	A	A
			Delay	0	0	>	0	0	0	>	0	0	0	0	0	0	0	0	0	0
			V/C	0.00	0.00	>		0.00	0.00	>		0.00	0.22	0.00		0.00	0.21	0.00		
			Q	25	--	>		25	--	>		75	--	45		65	--	45		
		Total Phase 2	LOS	A	A	>	A	E	E	>	E	A	A	A	A	A	A	A	A	A
			Delay	0	0	>	0	58	60	>	59	0	0	0	0	0	0	0	0	3
			V/C	0.00	0.00	>		0.38	0.43	>		0.00	0.29	0.01		0.02	0.25	0.00		
			Q	25	--	>		-1	--	>		75	--	44		64	--	45		
		Total 5 Year	LOS	A	A	>	A	D	E	>	E	A	A	A	A	A	A	A	A	A
			Delay	0	0	>	0	53	63	>	60	0	1	0	1	1	0	0	0	3
			V/C	0.00	0.00	>		0.22	0.74	>		0.00	0.50	0.01		0.13	0.43	0.00		
			Q	25	--	>		3	--	>		75	--	45		64	--	45		
		Total 10 Year	LOS	A	A	>	A	D	E	>	E	A	A	A	A	A	A	A	A	A
			Delay	0	0	>	0	53	63	>	60	0	1	0	1	1	0	0	0	3
			V/C	0.00	0.00	>		0.22	0.74	>		0.00	0.52	0.01		0.14	0.46	0.00		
			Q	25	--	>		3	--	>		75	--	45		64	--	45		
AM Peak Hour	New Road A & New Road B	Total Phase 1	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	
			Delay	<	0	>	0	<	0	>	0	<	0	>	0	<	0	>	0	
			V/C	<	0.00	>		<	0.00	>		<	0.00	>		<	0.00	>		
			Q	<	--	>		<	--	>		<	--	>		<	--	>		
		Total Phase 2	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	
			Delay	<	0	>	0	<	0	>	0	<	0	>	0	<	0	>	0	
			V/C	<	0.00	>		<	0.00	>		<	0.00	>		<	0.00	>		
			Q	<	--	>		<	--	>		<	--	>		<	--	>		
		Total 5 Year	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	
			Delay	<	0	>	0	<	7	>	1	<	10	>	10	<	0	>	0	
			V/C	<	0.00	>		<	0.01	>		<	0.07	>		<	0.00	>		
			Q	<	--	>		<	--	>		<	--	>		<	--	>		
		Total 10 Year	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	
			Delay	<	0	>	0	<	7	>	1	<	10	>	10	<	0	>	0	
			V/C	<	0.00	>		<	0.01	>		<	0.07	>		<	0.00	>		
			Q	<	--	>		<	--	>		<	--	>		<	--	>		

TABLE 5.9: AM PEAK HOURS OPERATIONS – 2024-2038 (9/9)

Analysis Period	Intersection	Scenario	MOE	Direction / Movement / Approach																
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	South Access & New Road B	Total Phase 1	LOS	A		>	A					<	A		A		A	>	A	
			Delay	9		>	9					<	7		7		0	>	0	
			V/C	0.14		>						<	0.03				0.00	>		
			Q	--		>						<	--				--	>		
		Total Phase 2	LOS	A		>	A					<	A		A		A	>	A	
			Delay	9		>	9					<	7		7		0	>	0	
			V/C	0.14		>						<	0.03				0.00	>		
			Q	--		>						<	--				--	>		
		Total 5 Year	LOS	A		>	A					<	A		A		A	>	A	
			Delay	9		>	9					<	7		7		0	>	0	
			V/C	0.16		>						<	0.02				0.00	>		
			Q	--		>						<	--				--	>		
		Total 10 Year	LOS	A		>	A					<	A		A		A	>	A	
			Delay	9		>	9					<	7		7		0	>	0	
			V/C	0.16		>						<	0.02				0.00	>		
			Q	--		>						<	--				--	>		
AM Peak Hour	East Access & New Road A	Total Phase 1	LOS		A	>	A	<	A		A	A		>	A					
			Delay		0	>	0	<	0		0	0		>	0					
			V/C		0.00	>		<	0.00			-		>						
			Q		--	>		<	--			--		>						
		Total Phase 2	LOS		A	>	A	<	A		A	A		>	A					
			Delay		0	>	0	<	0		0	9		>	9					
			V/C		0.00	>		<	0.00			0.09		>						
			Q		--	>		<	--			--		>						
		Total 5 Year	LOS		A	>	A	<	A		A	A		>	A					
			Delay		0	>	0	<	0		0	9		>	9					
			V/C		0.00	>		<	0.00			0.09		>						
			Q		--	>		<	--			--		>						
		Total 10 Year	LOS		A	>	A	<	A		A	A		>	A					
			Delay		0	>	0	<	0		0	9		>	9					
			V/C		0.00	>		<	0.00			0.09		>						
			Q		--	>		<	--			--		>						

TABLE 5.10: PM PEAK HOURS OPERATIONS – 2024-2038 (1/9)

Analysis Period	Intersection	Scenario	MOE	Direction / Movement / Approach																
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Overall
PM Peak Hour	William Halton Parkway & Trafalgar Road	Base	LOS	E	D	D	D	D	F	D	F	B	C	B	C	C	C	C	C	F
			Delay	56	38	38	44	35	263	39	253	18	26	19	26	21	23	34	26	96
			V/C	0.76	0.15	0.17		0.11	1.46	0.04		0.31	0.52	0.02		0.47	0.32	0.69		
			Q	52	28	13		18	312	0		20	112	0		27	66	63		
		Background Phase 1	LOS	E	D	D	D	D	F	D	F	B	C	B	C	C	C	D	C	F
			Delay	58	38	39	45	35	290	39	274	19	29	20	29	24	24	35	28	103
			V/C	0.78	0.15	0.20		0.16	1.52	0.04		0.35	0.64	0.03		0.55	0.40	0.72		
			Q	164	--	61		136	--	185		189	--	70		146	--	98		
		Background Phase 2	LOS	E	D	D	D	D	F	D	F	C	C	C	C	C	C	D	C	F
			Delay	66	39	40	48	35	331	39	308	20	32	20	31	28	25	38	29	114
			V/C	0.82	0.17	0.25		0.24	1.61	0.04		0.42	0.71	0.04		0.64	0.46	0.77		
			Q	160	--	60		127	--	185		187	--	70		134	--	81		
		Background 5 Year	LOS	F	D	D	F	F	F	D	F	F	E	C	F	F	D	E	D	F
			Delay	658	42	42	336	353	475	39	438	201	76	25	93	90	35	60	47	210
			V/C	2.33	0.33	0.29		1.65	1.93	0.08		1.31	1.05	0.13		0.94	0.72	0.92		
			Q	-16	--	59		-153	--	185		22	--	58		85	--	18		
		Background 10 Year	LOS	F	D	D	F	F	F	D	F	F	F	C	F	F	D	F	E	F
			Delay	698	43	43	350	379	556	39	506	245	108	25	125	113	37	82	56	244
			V/C	2.42	0.35	0.32		1.71	2.11	0.09		1.41	1.13	0.13		1.02	0.77	1.02		
			Q	-26	--	58		-159	--	185		12	--	58		73	--	-32		
		Total Phase 1	LOS	E	D	D	D	D	F	D	F	B	C	B	C	C	C	D	C	F
			Delay	58	38	39	45	35	290	39	272	19	30	20	29	25	24	36	28	102
			V/C	0.78	0.15	0.22		0.19	1.52	0.04		0.36	0.65	0.04		0.56	0.42	0.72		
			Q	166	--	60		132	--	185		188	--	70		145	--	97		
		Total Phase 2	LOS	E	D	D	D	C	F	D	F	C	C	C	C	C	C	D	C	F
			Delay	63	40	42	48	35	316	39	291	20	32	20	31	28	25	37	29	108
			V/C	0.81	0.17	0.29		0.29	1.58	0.04		0.42	0.71	0.05		0.63	0.47	0.75		
			Q	163	--	59		121	--	185		187	--	70		136	--	85		
		Total 5 Year	LOS	F	D	D	F	F	F	D	F	F	F	C	F	F	D	E	D	F
			Delay	658	42	43	332	385	475	39	445	213	83	25	100	90	36	60	47	213
			V/C	2.33	0.33	0.32		1.72	1.93	0.08		1.34	1.07	0.14		0.94	0.74	0.92		
			Q	-16	--	58		-167	--	185		18	--	56		85	--	18		
		Total 10 Year	LOS	F	D	D	F	F	F	D	F	F	F	C	F	F	D	F	E	F
			Delay	698	43	43	346	412	556	39	513	257	115	25	132	113	38	82	56	248
			V/C	2.42	0.35	0.34		1.78	2.11	0.09		1.43	1.15	0.14		1.02	0.79	1.02		
			Q	-26	--	58		-174	--	185		11	--	56		73	--	-32		

TABLE 5.11: PM PEAK HOURS OPERATIONS – 2024-2038 (2/9)

Analysis Period	Intersection	Scenario	MOE	Direction / Movement / Approach																
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Overall
PM Peak Hour	Burnhamthrope Road E & Trafalgar Road	Base	LOS	D	D	>	D	D	D	>	D	B	B	>	B	A	A	>	A	B
			Delay	55	44	>	47	52	44	>	46	14	14	>	14	9	9	>	9	19
			V/C	0.50	0.58	>		0.32	0.58	>		0.26	0.51	>		0.05	0.38	>		
			Q	9	--	>		9	--	>		130	--	>		177	--	>		
		Background Phase 1	LOS	D	D	>	D	D	D	>	D	A	A	>	A	A	A	>	A	B
			Delay	55	44	>	47	53	43	>	45	2	1	>	1	7	9	>	8	13
			V/C	0.51	0.60	>		0.36	0.59	>		0.29	0.42	>		0.05	0.33	>		
			Q	7	--	>		6	--	>		118	--	>		176	--	>		
		Background Phase 2	LOS	D	D	>	D	D	D	>	D	A	A	>	A	A	A	>	A	B
			Delay	54	44	>	47	54	43	>	45	4	2	>	1	7	10	>	9	13
			V/C	0.52	0.63	>		0.43	0.59	>		0.37	0.47	>		0.05	0.38	>		
			Q	6	--	>		2	--	>		106	--	>		176	--	>		
		Background 5 Year	LOS	F	D	>	F	F	E	>	F	F	B	>	B	B	B	>	B	E
			Delay	271	47	>	110	593	57	>	291	84	12	>	14	19	18	>	17	60
			V/C	1.36	0.75	>		2.14	0.87	>		0.96	0.88	>		0.73	0.68	>		
			Q	-41	--	>		-150	--	>		71	--	>		100	--	>		
		Background 10 Year	LOS	F	D	>	F	F	E	>	F	F	B	>	C	C	B	>	B	E
			Delay	470	51	>	170	772	67	>	367	158	19	>	24	24	19	>	19	79
			V/C	1.82	0.81	>		2.54	0.93	>		1.18	0.94	>		0.77	0.72	>		
			Q	-53	--	>		-160	--	>		60	--	>		99	--	>		
		Total Phase 1	LOS	D	D	>	D	D	D	>	D	A	A	>	A	A	A	>	A	B
			Delay	55	44	>	47	53	43	>	46	2	1	>	1	7	9	>	9	13
			V/C	0.51	0.62	>		0.39	0.59	>		0.32	0.43	>		0.05	0.34	>		
			Q	8	--	>		5	--	>		114	--	>		176	--	>		
		Total Phase 2	LOS	D	D	>	D	E	D	>	D	A	A	>	A	A	A	>	A	B
			Delay	54	45	>	47	55	43	>	46	5	2	>	2	7	10	>	10	13
			V/C	0.52	0.65	>		0.48	0.58	>		0.41	0.49	>		0.05	0.41	>		
			Q	9	--	>		0	--	>		98	--	>		176	--	>		
		Total 5 Year	LOS	F	D	>	F	F	E	>	F	F	B	>	B	C	B	>	B	E
			Delay	271	48	>	110	647	57	>	317	122	14	>	18	20	19	>	18	64
			V/C	1.36	0.77	>		2.26	0.87	>		1.08	0.91	>		0.74	0.71	>		
			Q	-41	--	>		-154	--	>		53	--	>		100	--	>		
		Total 10 Year	LOS	F	D	>	F	F	E	>	F	F	C	>	D	E	C	>	C	F
			Delay	470	52	>	169	851	67	>	404	210	35	>	40	74	21	>	24	92
			V/C	1.82	0.82	>		2.71	0.93	>		1.31	1.02	>		0.91	0.75	>		
			Q	-53	--	>		-141	--	>		45	--	>		99	--	>		

TABLE 5.12: PM PEAK HOURS OPERATIONS – 2024-2038 (3/9)

Analysis Period	Intersection	Scenario	MOE	Direction / Movement / Approach																
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Overall
PM Peak Hour	Threshing Mill Boulevard & Trafalgar Road	Base	LOS					D		E	E		A	>	A	<	A		A	A
			Delay				0	45		67	64		1	>	1	<	6		6	10
			V/C					0.12		0.87			0.37	>		<	0.35			
			Q					--		--			--	>		<	--			
		Background Phase 1	LOS	A	A	>	A	D	D	>	E	A	A	A	A	B	B	A	B	B
			Delay	0	0	>	0	44	49	>	64	0	0	0	0	18	19	0	19	15
			V/C	0.00	0.00	>		0.17	0.87	>		0.00	0.32	0.06		0.19	0.26	0.00		
			Q	25	--	>		--	--	>		75	--	45		59	--	45		
		Background Phase 2	LOS	E	D	>	D	D	D	>	E	A	A	A	A	B	C	B	C	B
			Delay	57	42	>	47	46	48	>	57	3	0	0	1	20	21	14	21	16
			V/C	0.23	0.20	>		0.22	0.82	>		0.18	0.36	0.06		0.21	0.30	0.03		
			Q	11	--	>		--	--	>		71	--	45		58	--	44		
		Background 5 Year	LOS	E	D	>	D	D	D	>	E	B	A	A	A	B	C	A	B	B
			Delay	57	41	>	46	45	47	>	58	11	1	0	1	19	24	10	19	14
			V/C	0.23	0.18	>		0.22	0.83	>		0.39	0.62	0.07		0.41	0.57	0.03		
			Q	12	--	>		--	--	>		47	--	45		7	--	44		
		Background 10 Year	LOS	E	D	>	D	D	D	>	E	B	A	A	A	C	C	B	C	B
			Delay	57	39	>	45	43	46	>	60	14	1	0	2	22	31	10	21	16
			V/C	0.23	0.17	>		0.22	0.85	>		0.44	0.67	0.07		0.49	0.62	0.03		
			Q	12	--	>		--	--	>		43	--	45		6	--	44		
		Total Phase 1	LOS	A	A	>	A	D	D	>	E	A	A	A	A	C	C	A	C	B
			Delay	0	0	>	0	44	48	>	64	0	0	0	0	25	27	0	21	17
			V/C	0.00	0.00	>		0.30	0.89	>		0.00	0.33	0.14		0.36	0.26	0.00		
			Q	25	--	>		--	--	>		75	--	45		50	--	45		
		Total Phase 2	LOS	E	D	>	D	D	D	>	E	A	A	A	A	C	C	B	C	B
			Delay	57	40	>	46	47	46	>	58	4	0	0	1	28	32	15	24	18
			V/C	0.23	0.18	>		0.39	0.84	>		0.19	0.39	0.14		0.42	0.32	0.03		
			Q	12	--	>		--	--	>		71	--	45		7	--	43		
		Total 5 Year	LOS	E	D	>	D	D	D	>	E	B	A	A	A	C	C	A	B	B
			Delay	57	41	>	46	48	47	>	57	12	1	0	1	20	27	10	20	15
			V/C	0.23	0.18	>		0.41	0.83	>		0.40	0.63	0.14		0.45	0.58	0.03		
			Q	12	--	>		--	--	>		45	--	45		4	--	41		
		Total 10 Year	LOS	E	D	>	D	D	D	>	E	B	A	A	A	C	D	B	C	B
			Delay	57	39	>	45	46	46	>	59	15	1	0	2	25	35	10	22	16
			V/C	0.23	0.17	>		0.40	0.85	>		0.45	0.68	0.15		0.52	0.62	0.03		
			Q	12	--	>		--	--	>		44	--	45		1	--	41		

TABLE 5.13: PM PEAK HOURS OPERATIONS – 2024-2038 (4/9)

Analysis Period	Intersection	Scenario	MOE	Direction / Movement / Approach																
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Overall
PM Peak Hour	Wheat Boom Drive & Trafalgar Road	Base	LOS					D		E	E		A	>	A	<	A		A	A
			Delay				0	52		65	61		4	>	4	<	1		1	7
			V/C					0.36		0.81			0.33	>		<	0.32			
			Q					--		--			--	>		<	--			
		Background Phase 1	LOS	A	A	>	A	D	D	>	E	A	A	A	A	A	A	A	A	A
			Delay	0	0	>	0	50	51	>	58	0	4	4	4	1	2	0	0	8
			V/C	0.00	0.00	>		0.40	0.84	>		0.00	0.29	0.10		0.21	0.26	0.00		
			Q	25	--	>		--	--	>		75	--	40		57	--	45		
		Background Phase 2	LOS	A	D	>	D	D	D	>	E	A	A	A	A	A	A	A	A	A
			Delay	0	44	>	44	53	50	>	61	0	5	4	5	1	4	0	1	9
			V/C	0.00	0.06	>		0.59	0.85	>		0.00	0.34	0.15		0.37	0.31	0.00		
			Q	25	--	>		--	--	>		75	--	39		44	--	45		
		Background 5 Year	LOS	A	D	>	D	D	D	>	E	A	A	A	A	B	D	A	A	A
			Delay	0	43	>	43	52	49	>	62	0	8	5	8	17	40	0	3	10
			V/C	0.00	0.06	>		0.59	0.86	>		0.00	0.59	0.15		0.74	0.58	0.00		
			Q	25	--	>		--	--	>		75	--	37		-16	--	45		
		Background 10 Year	LOS	A	D	>	D	D	D	>	E	A	A	A	A	C	E	A	A	B
			Delay	0	42	>	42	51	49	>	63	0	9	5	9	24	64	0	5	11
			V/C	0.00	0.06	>		0.58	0.87	>		0.00	0.63	0.16		0.87	0.62	0.00		
			Q	25	--	>		--	--	>		75	--	36		-23	--	45		
		Total Phase 1	LOS	A	A	>	A	D	D	>	E	A	A	A	A	A	A	A	A	A
			Delay	0	0	>	0	50	51	>	58	0	5	4	5	1	2	0	0	8
			V/C	0.00	0.00	>		0.40	0.84	>		0.00	0.31	0.10		0.23	0.27	0.00		
			Q	25	--	>		--	--	>		75	--	40		56	--	45		
		Total Phase 2	LOS	A	D	>	D	D	D	>	E	A	A	A	A	A	A	A	A	A
			Delay	0	44	>	44	53	50	>	61	0	6	4	6	2	6	0	1	9
			V/C	0.00	0.06	>		0.59	0.85	>		0.00	0.38	0.15		0.41	0.34	0.00		
			Q	25	--	>		--	--	>		75	--	39		31	--	45		
		Total 5 Year	LOS	A	D	>	D	D	D	>	E	A	A	A	A	C	D	A	A	A
			Delay	0	43	>	43	52	49	>	62	0	8	5	8	22	55	0	4	10
			V/C	0.00	0.06	>		0.59	0.86	>		0.00	0.62	0.15		0.82	0.60	0.00		
			Q	25	--	>		--	--	>		75	--	36		-20	--	45		
		Total 10 Year	LOS	A	D	>	D	D	D	>	E	A	A	A	A	C	F	A	A	B
			Delay	0	42	>	42	51	49	>	63	0	10	5	9	28	87	0	6	11
			V/C	0.00	0.06	>		0.58	0.87	>		0.00	0.67	0.16		0.95	0.64	0.00		
			Q	25	--	>		--	--	>		75	--	36		-25	--	45		

TABLE 5.14: PM PEAK HOURS OPERATIONS – 2024-2038 (5/9)

Analysis Period	Intersection	Scenario	MOE	Direction / Movement / Approach																
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Overall
PM Peak Hour	Dundas Street & Trafalgar Road	Base	LOS	E	D	C	D	D	E	C	D	D	E	>	E	D	D	D	D	D
			Delay	65	35	29	38	40	56	24	54	48	61	>	58	39	41	42	41	48
			V/C	0.78	0.70	0.34		0.81	0.98	0.02		0.78	0.89	>		0.61	0.48	0.53		
			Q	63	--	82		125	--	90		109	--	>		38	--	47		
		Background Phase 1	LOS	E	C	C	C	D	D	C	D	E	D	>	D	D	D	D	D	D
			Delay	67	30	25	34	38	45	21	44	76	48	>	53	40	46	52	46	43
			V/C	0.81	0.65	0.31		0.81	0.94	0.02		0.92	0.71	>		0.56	0.53	0.73		
			Q	57	--	82		123	--	90		89	--	>		35	--	45		
		Background Phase 2	LOS	E	D	C	D	D	F	C	F	F	D	>	E	D	D	D	D	E
			Delay	71	36	30	41	51	98	25	92	104	47	>	58	41	43	50	45	62
			V/C	0.85	0.75	0.38		0.88	1.11	0.05		1.03	0.78	>		0.65	0.56	0.75		
			Q	46	--	80		126	--	90		69	--	>		30	--	42		
		Background 5 Year	LOS	F	F	D	F	E	F	D	F	F	E	>	F	F	D	F	F	F
			Delay	183	86	41	101	74	276	36	243	212	64	>	86	318	43	94	107	141
			V/C	1.24	1.06	0.54		0.93	1.50	0.36		1.34	0.98	>		1.58	0.76	1.03		
			Q	-19	--	71		130	--	81		10	--	>		-105	--	-38		
		Background 10 Year	LOS	F	F	D	F	F	F	D	F	F	E	>	F	F	D	F	F	F
			Delay	210	129	43	136	101	345	36	306	286	80	>	110	359	45	111	119	178
			V/C	1.30	1.17	0.59		1.02	1.66	0.37		1.51	1.04	>		1.67	0.80	1.09		
			Q	-28	--	60		131	--	83		-14	--	>		-114	--	-51		
		Total Phase 1	LOS	E	C	C	D	D	D	C	D	E	D	>	D	D	D	D	D	D
			Delay	69	31	26	36	39	51	22	50	76	47	>	53	39	45	52	46	46
			V/C	0.82	0.66	0.32		0.82	0.97	0.02		0.93	0.73	>		0.57	0.54	0.74		
			Q	53	--	82		124	--	90		89	--	>		35	--	44		
		Total Phase 2	LOS	E	D	C	D	D	F	C	F	F	D	>	E	D	D	D	D	E
			Delay	74	39	32	44	53	131	28	121	103	47	>	58	42	42	50	44	72
			V/C	0.87	0.79	0.40		0.89	1.18	0.07		1.04	0.80	>		0.70	0.57	0.75		
			Q	33	--	80		126	--	90		78	--	>		16	--	35		
		Total 5 Year	LOS	F	F	D	F	E	F	D	F	F	E	>	F	F	D	F	F	F
			Delay	216	86	41	110	74	276	36	243	227	80	>	98	328	44	107	111	146
			V/C	1.32	1.06	0.54		0.93	1.50	0.36		1.37	1.04	>		1.60	0.79	1.07		
			Q	-30	--	71		130	--	81		6	--	>		-105	--	-47		
		Total 10 Year	LOS	F	F	D	F	F	F	D	F	F	F	>	F	F	D	F	F	F
			Delay	244	129	43	144	101	345	36	306	302	100	>	126	359	46	127	123	183
			V/C	1.38	1.17	0.59		1.02	1.66	0.37		1.55	1.10	>		1.67	0.83	1.13		
			Q	-38	--	60		131	--	83		-14	--	>		-114	--	-72		

TABLE 5.15: PM PEAK HOURS OPERATIONS – 2024-2038 (6/9)

Analysis Period	Intersection	Scenario	MOE	Direction / Movement / Approach																
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Overall
PM Peak Hour	Dundas Street & Postridge Drive	Base	LOS	C	C	C	C	D	C	B	C	D	C	D	D	D	C	>	D	C
			Delay	29	29	20	28	37	32	17	32	39	34	36	36	38	33	>	35	31
			V/C	0.41	0.65	0.09		0.87	0.86	0.11		0.28	0.14	0.29		0.19	0.11	>		
			Q	116	--	88		95	--	76		19	--	--		--	--	>		
		Background Phase 1	LOS	C	C	C	C	D	C	B	C	D	C	D	D	D	C	>	D	C
			Delay	30	30	21	30	45	34	18	35	39	34	36	37	39	33	>	36	33
			V/C	0.44	0.69	0.10		0.90	0.89	0.15		0.30	0.15	0.30		0.26	0.10	>		
			Q	111	--	87		79	--	73		17	--	--		--	--	>		
		Background Phase 2	LOS	C	C	C	C	D	D	B	D	D	C	D	D	D	C	>	D	D
			Delay	33	34	23	34	55	42	19	42	40	34	37	37	40	33	>	37	39
			V/C	0.50	0.77	0.11		0.91	0.96	0.22		0.32	0.16	0.32		0.29	0.11	>		
			Q	113	--	87		69	--	69		14	--	--		--	--	>		
		Background 5 Year	LOS	C	E	C	E	E	F	B	E	D	C	D	D	D	C	>	D	E
			Delay	35	59	25	57	72	80	19	76	41	34	37	38	41	33	>	37	65
			V/C	0.56	1.00	0.12		0.93	1.09	0.23		0.35	0.17	0.35		0.32	0.11	>		
			Q	118	--	88		54	--	66		11	--	--		--	--	>		
		Background 10 Year	LOS	D	F	C	F	F	F	B	F	D	C	D	D	D	C	>	D	F
			Delay	37	98	26	93	88	126	19	117	42	34	38	39	43	34	>	38	100
			V/C	0.61	1.11	0.14		0.99	1.20	0.24		0.39	0.19	0.38		0.35	0.13	>		
			Q	117	--	88		34	--	63		6	--	--		--	--	>		
		Total Phase 1	LOS	C	C	C	C	D	C	B	C	D	C	D	D	D	C	>	D	C
			Delay	31	30	21	30	45	34	18	35	39	34	36	37	40	33	>	37	33
			V/C	0.44	0.69	0.10		0.90	0.89	0.17		0.30	0.15	0.30		0.29	0.10	>		
			Q	111	--	87		79	--	72		17	--	--		--	--	>		
		Total Phase 2	LOS	C	C	C	C	D	D	B	D	D	C	D	D	D	C	>	D	D
			Delay	32	33	22	33	52	39	19	40	40	34	37	37	41	33	>	37	37
			V/C	0.48	0.75	0.10		0.90	0.94	0.24		0.31	0.15	0.31		0.32	0.10	>		
			Q	114	--	87		72	--	68		16	--	--		--	--	>		
		Total 5 Year	LOS	C	E	C	E	E	F	B	E	D	C	D	D	D	C	>	D	E
			Delay	35	59	25	57	72	80	19	76	41	34	37	38	43	33	>	38	65
			V/C	0.56	1.00	0.12		0.93	1.09	0.26		0.35	0.17	0.35		0.38	0.11	>		
			Q	118	--	88		54	--	64		11	--	--		--	--	>		
		Total 10 Year	LOS	D	F	C	F	F	F	B	F	D	C	D	D	D	C	>	D	F
			Delay	37	98	26	93	88	126	20	116	42	34	38	39	45	34	>	39	99
			V/C	0.61	1.11	0.14		0.99	1.20	0.28		0.39	0.19	0.38		0.42	0.13	>		
			Q	117	--	88		34	--	61		6	--	--		--	--	>		

TABLE 5.16: PM PEAK HOURS OPERATIONS – 2024-2038 (7/9)

Analysis Period	Intersection	Scenario	MOE	Direction / Movement / Approach																
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
PM Peak Hour	Threshing Mill Boulevard & William Coltson Avenue	Base	LOS	<	A		A		A	>	A						B	>	B	
			Delay	<	8		2		0	>	0						11	>	11	
			V/C	<	0.02				0.00	>							0.16	>		
			Q	<	--				--	>							--	>		
		Background Phase 1	LOS	<	A		A		A	>	A						B	>	B	
			Delay	<	8		4		0	>	0						13	>	13	
			V/C	<	0.08				0.00	>							0.27	>		
			Q	<	--				--	>							--	>		
		Background Phase 2	LOS	<	A		A		A	>	A						B	>	B	
			Delay	<	8		4		0	>	0						13	>	13	
			V/C	<	0.09				0.00	>							0.29	>		
			Q	<	--				--	>							--	>		
		Background 5 Year	LOS	<	A		A		A	>	A						B	>	B	
			Delay	<	9		4		0	>	0						14	>	14	
			V/C	<	0.09				0.00	>							0.33	>		
			Q	<	--				--	>							--	>		
		Background 10 Year	LOS	<	A		A		A	>	A						C	>	C	
			Delay	<	9		4		0	>	0						15	>	15	
			V/C	<	0.09				0.00	>							0.37	>		
			Q	<	--				--	>							--	>		
		Total Phase 1	LOS	<	A		A		A	>	A						C	>	B	
			Delay	<	9		6		0	>	0						23	>	14	
			V/C	<	0.21				0.00	>							0.25	>		
			Q	<	--				--	>							--	>		
		Total Phase 2	LOS	<	A		A		A	>	A						D	>	C	
			Delay	<	9		6		0	>	0						26	>	15	
			V/C	<	0.21				0.00	>							0.28	>		
			Q	<	--				--	>							--	>		
		Total 5 Year	LOS	<	A		A		A	>	A						C	>	C	
			Delay	<	9		5		0	>	0						22	>	15	
			V/C	<	0.16				0.00	>							0.28	>		
			Q	<	--				--	>							--	>		
		Total 10 Year	LOS	<	A		A		A	>	A						C	>	C	
			Delay	<	9		5		0	>	0						25	>	16	
			V/C	<	0.17				0.00	>							0.32	>		
			Q	<	--				--	>							--	>		

TABLE 5.17: PM PEAK HOURS OPERATIONS – 2024-2038 (8/9)

Analysis Period	Intersection	Scenario	MOE	Direction / Movement / Approach																
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Overall
PM Peak Hour	New Road A & Trafalgar Road	Total Phase 1	LOS	A	A	>	A	A	A	>	A	A	A	A	A	A	A	A	A	A
			Delay	0	0	>	0	0	0	>	0	0	0	0	0	0	0	0	0	0
			V/C	0.00	0.00	>		0.00	0.00	>		0.00	0.31	0.00		0.00	0.23	0.00		
			Q	25	--	>		25	--	>		75	--	45		65	--	45		
		Total Phase 2	LOS	A	A	>	A	E	E	>	E	A	A	A	A	A	A	A	A	A
			Delay	0	0	>	0	58	60	>	59	0	0	0	0	1	0	0	0	1
			V/C	0.00	0.00	>		0.30	0.31	>		0.00	0.37	0.04		0.10	0.30	0.00		
			Q	25	--	>		6	--	>		75	--	43		61	--	45		
		Total 5 Year	LOS	A	A	>	A	E	E	>	E	A	A	A	A	A	A	A	A	A
			Delay	0	0	>	0	56	67	>	63	0	1	0	1	8	1	0	1	2
			V/C	0.00	0.00	>		0.19	0.68	>		0.00	0.58	0.03		0.48	0.52	0.00		
			Q	25	--	>		9	--	>		75	--	42		26	--	45		
		Total 10 Year	LOS	A	A	>	A	E	E	>	E	A	A	A	A	B	A	A	A	A
			Delay	0	0	>	0	56	67	>	63	0	1	0	1	11	1	0	1	2
			V/C	0.00	0.00	>		0.19	0.68	>		0.00	0.62	0.03		0.54	0.55	0.00		
			Q	25	--	>		9	--	>		75	--	42		26	--	45		
PM Peak Hour	New Road A & New Road B	Total Phase 1	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	
			Delay	<	0	>	0	<	0	>	0	<	0	>	0	<	0	>	0	
			V/C	<	0.00	>		<	0.00	>		<	0.00	>		<	0.00	>		
			Q	<	--	>		<	--	>		<	--	>		<	--	>		
		Total Phase 2	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	
			Delay	<	0	>	0	<	0	>	0	<	0	>	0	<	0	>	0	
			V/C	<	0.00	>		<	0.00	>		<	0.00	>		<	0.00	>		
			Q	<	--	>		<	--	>		<	--	>		<	--	>		
		Total 5 Year	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	
			Delay	<	0	>	0	<	8	>	1	<	10	>	10	<	0	>	0	
			V/C	<	0.00	>		<	0.01	>		<	0.04	>		<	0.00	>		
			Q	<	--	>		<	--	>		<	--	>		<	--	>		
		Total 10 Year	LOS	<	A	>	A	<	A	>	A	<	A	>	A	<	A	>	A	
			Delay	<	0	>	0	<	8	>	1	<	10	>	10	<	0	>	0	
			V/C	<	0.00	>		<	0.01	>		<	0.04	>		<	0.00	>		
			Q	<	--	>		<	--	>		<	--	>		<	--	>		

TABLE 5.18: PM PEAK HOURS OPERATIONS – 2024-2038 (9/9)

Analysis Period	Intersection	Scenario	MOE	Direction / Movement / Approach																
				Eastbound				Westbound				Northbound				Southbound				Overall
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
PM Peak Hour	South Access & New Road B	Total Phase 1	LOS	A		>	A					<	A		A		A	>	A	
			Delay	9		>	9					<	8		8		0	>	0	
			V/C	0.09		>						<	0.10				0.00	>		
			Q	--		>						<	--				--	>		
		Total Phase 2	LOS	A		>	A					<	A		A		A	>	A	
			Delay	9		>	9					<	8		8		0	>	0	
			V/C	0.09		>						<	0.10				0.00	>		
			Q	--		>						<	--				--	>		
		Total 5 Year	LOS	A		>	A					<	A		A		A	>	A	
			Delay	10		>	10					<	8		7		0	>	0	
			V/C	0.11		>						<	0.06				0.00	>		
			Q	--		>						<	--				--	>		
		Total 10 Year	LOS	A		>	A					<	A		A		A	>	A	
			Delay	10		>	10					<	8		7		0	>	0	
			V/C	0.11		>						<	0.06				0.00	>		
			Q	--		>						<	--				--	>		
PM Peak Hour	East Access & New Road A	Total Phase 1	LOS		A	>	A	<	A		A	A		>	A					
			Delay		0	>	0	<	0		0	0		>	0					
			V/C		0.00	>		<	0.00			-		>						
			Q		--	>		<	--			--		>						
		Total Phase 2	LOS		A	>	A	<	A		A	A		>	A					
			Delay		0	>	0	<	0		0	9		>	9					
			V/C		0.00	>		<	0.00			0.06		>						
			Q		--	>		<	--			--		>						
		Total 5 Year	LOS		A	>	A	<	A		A	A		>	A					
			Delay		0	>	0	<	0		0	9		>	9					
			V/C		0.00	>		<	0.00			0.06		>						
			Q		--	>		<	--			--		>						
		Total 10 Year	LOS		A	>	A	<	A		A	A		>	A					
			Delay		0	>	0	<	0		0	9		>	9					
			V/C		0.00	>		<	0.00			0.06		>						
			Q		--	>		<	--			--		>						

5.3 Roadway Classification Review

For this study, the public roads have been reviewed regarding the appropriateness of the roadway classifications as related to their projected volumes. The key streets serving the proposed subdivision would have the following characteristics:

- Road B:
  - Road B will operate similarly to a collector road connecting to Threshing Mill Boulevard in the south and Road A in the north. This Road will serve the initial phases of the subdivision.
  - This road could have daily two-way traffic volumes of 1,300 vehicles per day. These volumes are appropriate for a collector roadway (i.e., well below the TAC guideline of 8,000 vehicles per day).
- Road A:
  - Road A will operate similarly to a collector road that will connect to Trafalgar Road in the west and provide access to the eastern portion of the subdivision.
  - This road could have daily two-way traffic volumes of 1,300 vehicles per day. These volumes are appropriate for a collector roadway (i.e., well below the TAC guideline of 8,000 vehicles per day).

5.4 Planning Capacity Guidelines

Planning capacities have been reviewed to determine the number of lanes that should be provided for each new roadway within the proposed subdivision. As a general guideline, the following lane capacity based on vehicles per hour per lane (vphpl) is noted[8]:

- Collector (Road A and Road B) - An appropriate planning capacity for this facility would generally be 450 vphpl.

The use of appropriate planning capacities is an essential assumption; if higher planning capacities are used than what could be tolerated in the field, an underestimation of infrastructure needs could occur. Based on this, the following is noted concerning the future traffic volumes:

- Peak hour peak direction traffic volumes on Road B between Threshing Mill Boulevard and Road A are approximately 245 to

[8] The Road to Change, Halton Region Transportation Master Plan, Appendix F5 – Level of Service, September 2011

260 vphpl. The projected volumes are well within the planning capacities for a collector four-lane cross-section.

- Peak hour peak direction traffic volumes on Road A between Trafalgar Road and East Access are approximately 115 to 130 vphpl. The projected volumes are within the planning capacities for a collector two-lane cross-section.

5.5 Access Arrangement

The external and internal access points will comprise collector and local roads under the jurisdiction of the Town of Oakville (i.e., public roads) and private roads facilitating property access within the blocks. The Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads[9] was reviewed to determine the appropriateness of the access arrangement.

Preceding the analysis noted below, it can be summarized that the road system has been reviewed for general feasibility and found to be satisfactory.

5.5.1 Collector Intersection Spacing

Per the Geometric Design Guide for Canadian Roads, published by TAC, dated June 2017, the recommended minimum intersection spacing along a Collector Road is 60 metres (Section 9.4.2.2). Accordingly, the Ontario Traffic Manual states that for an intersection/driveway to be considered for future signalization, a minimum spacing of 215 metres for roads posted at 60 km/h or less and up to 350 m for roads posted at 80 km/h is recommended between adjacent signalized intersections.

Based on the proposed connections to Road A, the following is noted concerning intersection spacing:

- Road B intersects Road A approximately 120 metres (centreline to centreline) east of Trafalgar Road and meets the minimum spacing requirement along a collector road to permit full movements; however, it does not meet the minimum requirement for potential signalization.

[9] Geometric Design Guide for Canadian Roads, Transportation Association of Canada, 2017

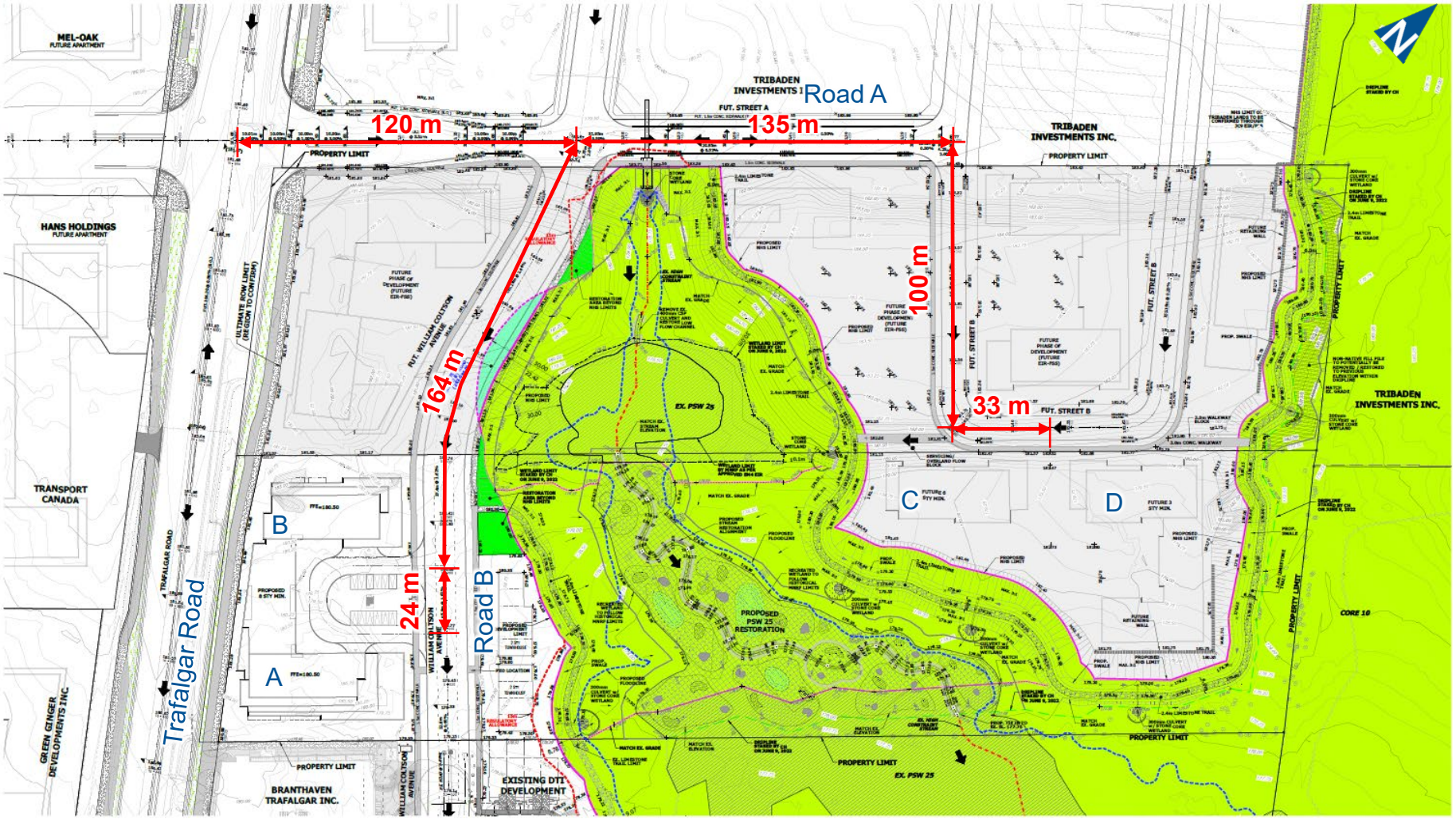
5.5.2 Driveway Spacing

TAC-GDGCR Chapter 8.8 (Corner Clearances at Major Intersection), Section 8.8.1 (General) states, "Corner clearance is the distance from an intersection to the nearest access upstream or downstream of it. Corner clearance is measured from the nearest curb of the cross roadway to the near edge of the access throat. It consists of three components: the curb return radius at the intersection, a length of a tangent, and the curb return radius or flare dimension at the driveway. Inadequate corner clearance between accesses and intersections along a major road, such as a major arterial, can create operational issues."

As Road B is proposed to be classified as a collector roadway, the proposed driveway connections should be at least 55 metres (curb radii to curb radii) from a signalized intersection and 25 metres from an unsignalized intersection. Based on the proposed driveway connections to Road B, the following is noted concerning spacing:

- North Access is located approximately 50 metres (curb radii to curb radii) south of the Road A and B intersection and meets the minimum spacing requirement along a collector.
- South Access is located approximately 90 metres (curb radii to curb radii) south of the North Access and Road B intersection and meets the minimum spacing requirement along a collector.

Figure 5.1 illustrates the intersection and driveway spacing.



Intersection and Driveway Spacing

3275 Trafalgar Road, Oakville TIS
220208

Figure 5.1

5.6 Active Transportation

The opportunity exists to design and implement a walking and cycling-friendly community through carefully planning and integrating existing external facilities. The key objectives of the active transportation strategy are to:

- Promote integrated pedestrian and bicycle facilities as a sustainable alternative to vehicular transportation;
- Accommodate cyclists with differing cycling skills and attitudes towards motorized traffic and different trip purposes;
- Establish a seamless, interconnected active transportation network that extends and links to existing and planned municipal pedestrian and cycling facilities, including future trails along Trafalgar Road, helping to serve destinations both within the subdivision and other areas of the Town;
- Facilitate the formation of an Active and Safe Routes to School program through the provision of direct and connected active transportation routes;
- Provide safe crossings of major roads within the development area;
- Enable safe, efficient and comfortable connections to transit;
- Promote safe walking and cycling by providing well-designed facilities and adhering to applicable legislation.

Plans for the walking and cycling system should rely on the existing and proposed collector roadways to provide the framework for the networks of routes. Collector roadways are the preferred location for bike lanes. These roads generally carry lower traffic volumes at slower speeds than arterials and provide direct property access to residential land uses.

The active transportation strategy will evolve as development occurs, given that the lands are predominately vacant currently with no existing walking or cycling infrastructure.

5.7 Transit

Implementing an efficient and accessible bus transit system is critical to the success of North Oakville East. Achieving higher transit mode shares diminishes vehicle traffic and road construction needs, encourages greater use of active transportation modes (to access bus service), and reduces reliance on the automobile for personal travel.

The transit plan should rely on the existing and proposed arterial and collector roadways to support extending existing and future transit

services to the development area, using buses operating in mixed traffic.

Service would likely begin through the extension of Transit Route 24 initially, then by rerouting Routes 22, and 5A into the subdivision lands. This will facilitate connections with local, regional, and inter-regional bus services, thereby providing efficient and direct service to the subdivision lands from various locations. The plan should also provide a density of route coverage that places most properties within 400 metres of a bus stop.

While most transit services within the area will likely be provided through extensions of existing and future public bus routes, a separate local/ community service may also be a viable option, subject to potential ridership.

6 Mitigation

As summarized in the analysis tables in the previous chapter, several study area locations either currently experience or are projected to experience operational deficiencies independent of the Development. **The analysis also identified that the development would have minimal impact on the study area's traffic conditions.**

6.1 Signal Timing Modifications

Given the widening of Trafalgar Road, it is assumed that the signal timings will be modified to accommodate the increased road capacity and exclusive turn lanes implemented at the various intersections.

A sensitivity analysis has been conducted for the 10-year total horizon to assess the intersection operations with signal timing modifications, including adjusting cycle lengths and splits. **Table 6.1** summarizes the results of the sensitivity analysis. **Appendix G** contains the detailed Synchro reports and signal timings.

Other signal timing modifications include:

- Burnhamthrope Road E at Trafalgar Road
  - Exclusive northbound, eastbound, and westbound left-turn phases
- Wheat Boom Drive at Trafalgar Road
  - Exclusive southbound left-turn phase
- Dundas Street at Postridge Drive
  - Exclusive northbound and southbound left-turn phases

Overall, the addition of exclusive left-turn phases is expected to operate with marginally better operations; however, highly congested intersections, such as Trafalgar Road and Dundas Road, are still projected to exceed the theoretical capacity for several movements.

TABLE 6.1: SENSITIVITY ANALYSIS – SIGNAL TIMING MODIFICATIONS

Analysis Period	Intersection	Control Type	MOE	Direction / Movement / Approach																Overall
				Eastbound				Westbound				Northbound				Southbound				
				Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	Left	Through	Right	Approach	
AM Peak Hour	1 - William Halton Parkway & Trafalgar Road	TCS	LOS	F	D	D	**F**	D	F	D	**F**	F	F	C	**F**	F	E	D	**F**	**F**
			Delay	211	41	39	**89**	35	153	39	**133**	109	110	33	**106**	206	58	44	**84**	**103**
			V/C	1.32	0.58	0.47		0.58	1.20	0.12		1.07	1.12	0.21		1.30	0.89	0.41		
			Q	188	111	20		47	249	0		185	270	16		149	155	18		
	2 - Burnhamthrope Road E & Trafalgar Road	TCS	LOS	D	F	>	**F**	F	E	>	**F**	C	E	>	**D**	F	D	>	**D**	**E**
			Delay	48	150	>	**116**	127	56	>	**93**	28	58	>	**52**	153	37	>	**48**	**65**
			V/C	0.67	1.14	>		1.10	0.72	>		0.49	0.93	>		1.13	0.70	>		
			Q	66	219	>		172	124	>		32	297	>		95	182	>		
	4 - Wheat Boom Drive & Trafalgar Road	TCS	LOS	A	D	>	**D**	D	D	>	**E**	A	A	A	**A**	A	A	A	**A**	**A**
			Delay	0	44	>	**44**	53	49	>	**57**	0	7	4	**7**	2	4	0	**1**	**7**
			V/C	0.00	0.09	>		0.59	0.79	>		0.00	0.50	0.06		0.21	0.61	0.00		
			Q	0	2	>		48	21	>		0	88	4		14	104	0		
	5 - Dundas Street & Trafalgar Road	TCS	LOS	F	E	C	**E**	F	D	D	**E**	F	E	>	**E**	F	E	D	**E**	**E**
			Delay	84	65	31	**65**	204	46	36	**68**	183	60	>	**77**	177	59	55	**77**	**71**
			V/C	0.95	1.02	0.45		1.29	0.82	0.32		1.23	0.92	>		1.25	0.94	0.81		
			Q	104	260	40		121	139	8		113	149	>		154	171	60		
	6 - Dundas Street & Postridge Drive	TCS	LOS	C	D	B	**D**	E	B	A	**B**	E	D	D	**D**	E	D	>	**D**	**C**
			Delay	23	37	14	**37**	80	12	9	**19**	56	43	53	**52**	59	48	>	**52**	**33**
			V/C	0.24	0.95	0.05		0.88	0.49	0.11		0.33	0.11	0.54		0.57	0.25	>		
			Q	18	278	3		79	87	6		34	22	39		68	36	>		
PM Peak Hour	1 - William Halton Parkway & Trafalgar Road	TCS	LOS	F	D	D	**F**	F	F	C	**F**	F	F	D	**F**	F	F	F	**F**	**F**
			Delay	394	37	38	**202**	120	306	30	**256**	411	272	39	**283**	247	97	240	**149**	**228**
			V/C	1.74	0.30	0.29		1.14	1.57	0.06		1.77	1.48	0.18		1.39	1.08	1.40		
			Q	226	52	16		254	446	0		126	304	5		124	244	222		
	2 - Burnhamthrope Road E & Trafalgar Road	TCS	LOS	F	F	>	**F**	F	F	>	**F**	F	E	>	**E**	F	E	>	**E**	**F**
			Delay	91	192	>	**163**	156	115	>	**132**	95	80	>	**75**	205	62	>	**69**	**88**
			V/C	0.91	1.25	>		1.19	1.06	>		0.94	1.04	>		1.27	0.98	>		
			Q	70	208	>		159	200	>		75	354	>		56	80	>		
	4 - Wheat Boom Drive & Trafalgar Road	TCS	LOS	A	D	>	**D**	D	D	>	**E**	A	B	A	**B**	C	C	A	**A**	**B**
			Delay	0	42	>	**42**	52	49	>	**67**	0	16	8	**15**	23	28	0	**2**	**13**
			V/C	0.00	0.06	>		0.59	0.89	>		0.00	0.75	0.18		0.71	0.64	0.00		
			Q	0	0	>		59	14	>		0	193	17		40	25	0		
	5 - Dundas Street & Trafalgar Road	TCS	LOS	F	D	D	**F**	F	F	C	**F**	F	F	>	**F**	F	F	F	**F**	**F**
			Delay	261	49	35	**92**	122	184	32	**170**	307	259	>	**240**	328	126	308	**210**	**172**
			V/C	1.40	0.90	0.45		1.07	1.30	0.29		1.54	1.44	>		1.59	1.12	1.53		
			Q	162	220	33		146	383	30		207	296	>		205	203	198		
	6 - Dundas Street & Postridge Drive	TCS	LOS	D	F	C	**E**	E	F	B	**F**	D	D	D	**D**	D	D	>	**D**	**E**
			Delay	43	82	27	**79**	74	94	18	**88**	49	39	44	**44**	52	38	>	**45**	**80**
			V/C	0.65	1.07	0.14		0.93	1.12	0.26		0.43	0.20	0.41		0.46	0.14	>		
			Q	32	290	8		136	375	23		60	41	18		55	17	>		

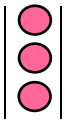
MOE - Measure of Effectiveness
LOS - Level of Service
Delay - Average Delay per Vehicle in Seconds

Q - 95th Percentile Queue Length
Ex. - Existing Available Storage
Avail. - Available Storage

TCS - Traffic Control Signal
TWSC - Two-Way Stop Control
AWSC - All-Way Stop Control

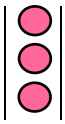
RBT - Roundabout
< - Shared Left-turn
> - Shared Right-turn

6.1.1 William Halton Parkway at Trafalgar Road

2038 Background Operation (10-year After)	Exceeding Capacity	
2038 Total Operations (10-year After)	Exceeding Capacity	
2038 Total Operations (10-year After) - Sensitivity	Exceeding Capacity	

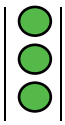
The William Halton Parkway and Trafalgar Road intersection is projected to operate with reduced delay for the left-turn movements; however, several movements are still projected to exceed capacity with a v/c ratio exceeding 1.00.

6.1.2 Burnhamthorpe Road E at Trafalgar Road

2038 Background Operation (10-year After)	Exceeding Capacity	
2038 Total Operations (10-year After)	Exceeding Capacity	
2038 Total Operations (10-year After) - Sensitivity	Exceeding Capacity	

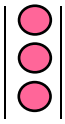
The Burnhamthorpe Road E and Trafalgar Road intersection is projected to operate with reduced delay for the left-turn movements; however, several movements are still projected to exceed capacity with a v/c ratio exceeding 1.00.

6.1.3 Wheat Boom Drive at Trafalgar Road

2038 Background Operation (10-year After)	Within Capacity	
2038 Total Operations (10-year After)	Within Capacity	
2038 Total Operations (10-year After) - Sensitivity	Within Capacity	

The Wheat Boom Drive and Trafalgar Road intersection are projected to operate with improved operations, with all movements projected to operate at LOS D or better.

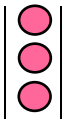
6.1.4 Dundas Street at Trafalgar Road

2038 Background Operation (10-year After)	Exceeding Capacity	
2038 Total Operations (10-year After)	Exceeding Capacity	
2038 Total Operations (10-year After) - Sensitivity	Exceeding Capacity	

The Dundas Street and Trafalgar Road intersection is projected to operate with a reduced delay for the overall intersection with optimized timing splits. Specifically, during the weekday AM peak hour, a reduction in delay of 18 seconds is projected, while during the weekday PM peak hour, a delay of 94 seconds is projected. However, even with the modified signal timings, the intersection is noted to be exceeding capacity.

6.1.5 Dundas Street at Postridge Drive

2038 Background Operation (10-year After)	Exceeding Capacity
2038 Total Operations (10-year After)	Exceeding Capacity
2038 Total Operations (10-year After) - Sensitivity	Exceeding Capacity



The Dundas Street and Postridge Drive intersection is projected to operate with reduced delay for the left-turn movements; however, the eastbound and westbound through movements are still projected to exceed capacity with a v/c ratio exceeding 1.00 during the weekday PM peak hour.

6.2 Network Deficiencies

The vehicle traffic analyses of intersection performance conducted overall conditions are expected to experience congestion during the weekday peak hours.

Trafalgar Road will be widened from a four-lane cross-section to a six-lane cross-section. Even with this planned widening, multiple intersections are forecast to experience significant congestion for several movements in the 10-year background horizon (i.e. not including the development).

With that said, the analysis presented within the report is likely overstated based on the following:

- Growth rates used in the report are generally conservative, considering adjacent background developments have been considered, which would capture some of the anticipated growth in traffic. Using a 2.0% compounded growth rate per year may potentially not occur.
- The TIS generally looks at a “worst-case scenario” during the peak hours of the day. The study area intersections would be anticipated to operate under satisfactory conditions for most of the remainder of a typical day and during the morning peak hour.
- A shift in mode share was not implemented to provide a conservative traffic estimate. The planned widening of Trafalgar Road includes curbside HOV lanes and transit stop infrastructure in the study area. These infrastructure improvements may result in a noticeable shift in transit mode share for the subject site and nearby developments.

Additional widening arterial roads to accommodate vehicular traffic volumes is not recommended in the study area. This would be counter-

intuitive to the vision of a people-centric, pedestrian-friendly environment that expects people to use more sustainable modes of travel. Any potential road widening would accommodate dedicated bus lanes to improve transit capacity and efficiency.

Cycling infrastructure presently is limited in the study area. The cycling network is expected to expand through redevelopment and the Trafalgar Road widening.

Due to the levels of congestion forecast in the future horizon with the Trafalgar Road widening, additional remedial measures to improve intersection capacity are not likely to be implemented. Rather, future transportation network improvements are expected to primarily focus on public transit infrastructure.

By focusing on shifting commuter travel to public transit, intersection operations could be expected to maintain the status quo (capacity conditions during peak hours) or possibly improve if fewer vehicles traverse the intersections during the peak hours of a typical weekday.

6.3 Traffic Calming

Road A and Road B are proposed to be collector roads. Various road users, including pedestrians, cyclists, automobiles, transit, trucks, and service vehicles, are intended to co-exist in relative safety and harmony on urban residential roads. When problems related to high traffic speeds and high traffic volumes, poor roadway geometry, poor traffic operations, or any combination of these characteristics, residential streets are no longer perceived as pleasant or safe for all road users (e.g. pedestrians, cyclists, and even drivers).

Correcting deficiencies in the arterial road network can address some problems, such as eliminating speeding or short-cutting on residential streets. However, additional solutions, such as traffic calming, are sometimes required.

Traffic calming is a contentious subject and must be dealt with in a clear, concise and transparent process that should meet the needs and expectations of the community. The implementation of traffic calming should minimize the inconvenience to local services such as garbage collection, snow plowing, and daily residential users.

Also, there is value in adding calming traffic measures incrementally to respond to local traffic issues while avoiding creating an excess nuisance to community travel. The following outlines actions incorporated in the design:

Lateral shifts or curved alignment
It serves as a visual cue to drivers, causing them to decrease speed and increase awareness. The curvatures in the alignment of Road B deflect travel paths and reduce the appearance of straight, continuous roadways. A lateral shift is incorporated on Road B between the existing section of William Coltson Avenue and the proposed new east/west road (Road A)

On-street Parking
On-street parking reduces the roadway width available for vehicle movement by allowing motor vehicles to park adjacent and parallel to the curb. Angled parking is not appropriate as a calming traffic measure due to the increased potential for conflicts. The effect of using on-street parking to narrow the functional roadway space is to reduce vehicle speeds and to reduce possible short-cutting or through traffic. The applicability of on-street parking as defined in TAC is as follows:

- Road Classification: Local and collector streets; urban commercial streets
- Traffic Conditions: All traffic volumes
- Roadway: Urban cross-section – curb and gutter
- It may be used in combination with speed humps, curb extensions
- Due to varying jurisdictional guidelines and regulations, on-street parking not be implemented if it results in substandard roadway widths which conflict with lane width, transit or emergency service requirements

On-street parking along both sides of Road B, and parking on alternating sides of Road A will narrow the roadway width, reducing travel speeds.

In the future, the installation of specific traffic calming measures may be deemed necessary when street users and/or area residents consider traffic volumes, speeds or operational characteristics to be inappropriate for the type of adjacent land use and corresponding pedestrian, cyclist and other activities that occur along the street. To address specific issues, a Neighbourhood Traffic Management plan should be prepared to examine the need for traffic calming on roads within the subdivision and identify potential measures and preferred placement if implementation is justified. The plan should ensure that the recommended measures are compatible with the community's needs and that any potential negative impacts are minimized.

6.4 Auxiliary Turn Lane

The Ministry of Transportation's Design Supplement for the Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads[10] guides the assessment and/or need for auxiliary left-turn lanes at intersections.

The south access to Phase 1 has been reviewed using these procedures to determine if the future traffic volumes warrant left-turn lanes to serve the site. New Road B is proposed as a four-lane roadway with a posted speed limit of 40 km/h. Based on the opposing volumes and volume of left-turns, a northbound left-turn lane is not warranted for the Phase 1 access.

Access to the Phase 2 is not forecast to have significant left-turns into the site given its location on the east end of the subject site. As such, no auxiliary left turn lane is required for the Phase 2 access.

Appendix H contains the left-turn lane warrant diagram.

[10] MTO Design Supplement for TAC Geometric Design Guide for Canadian Roads, Appendix 9 for Chapter 9 Intersections, June 2017.

7 Parking

The site concept plan includes 1566 parking spaces (1352 occupants and 214 visitor spaces) for Parcel 1 and Parcel 2. A breakdown by parcel is summarized in **Table 7.1**.

The site's bicycle parking supply is 968 long-term spaces and 321 short-term spaces. A breakdown of the bicycle parking by parcel is summarized in **Table 7.2**.

TABLE 7.1: PROPOSED PARKING SUPPLY

Parcel	Units	Parking (spaces)			Parking Rate (spaces/unit)
		Residential	Non-Residential / Visitor	Total	
Parcel 1	816	810	122	932	1.14
Parcel 2	463	542	92	634	1.37
Total	**1279**	**1352**	**214**	**1566**	**1.22**

TABLE 7.2: PROPOSED BICYCLE PARKING SUPPLY

Parcel	Units	Bicycle Parking (spaces)			Parking Rate (spaces/unit)
		Long-Term	Short-Term	Total	
Parcel 1	816	612	205	817	1.00
Parcel 2	463	356	116	472	1.02
Total	**1279**	**968**	**321**	**1289**	**1.01**

7.1 Zoning By-Law

Zoning By-law 2009-189 is the current in-force By-law for the Town of Oakville for lands between Dundas Street and Highway 407. In contrast to generic minimum parking requirements, Zoning By-law 2009-189 provides maximum limits to restrict the number of spaces that can be constructed rather than establish a minimum number that must be provided. The maximum parking rate for the proposed development is as follows:

- Apartment (More than 4 storeys): up to 1.25 parking spaces per dwelling unit, plus 0.2 parking spaces per dwelling unit for visitors. Additional parking spaces shall not be permitted. In the Trafalgar Urban Core Zone, no parking spaces shall be permitted in a surface parking area, with the exception of visitor

parking spaces which may be located underground, in a parking garage or in a surface parking area.

In contrast to generic minimum parking requirements, Zoning By-law 2009-189 sets a maximum limit to cap the number of parking developers may provide. By limiting the amount of vehicle parking, the municipality demonstrates a solid commitment to alternative modes of transportation (transit/walking/cycling).

Table 7.3 summarizes Zoning By-law 2009-189 maximum parking standard calculations for the development. As indicated, under the Town's Zoning By-law, the proposed development shall not exceed 1,855 parking spaces.

TABLE 7.3: ZONING MAXIMUM REQUIREMENTS

Parcel	Units	Maximum Parking Rate		Calculation (Spaces)
Parcel 1	816	Occupant	1.25 spaces per unit	1020
		Visitor	0.20 spaces per unit	163
Parcel 2	463	Occupant	1.25 spaces per unit	579
		Visitor	0.20 spaces per unit	93
Maximum Parking Permitted		**1.45 spaces per unit**		**1,855**

The proposed supply of 1,566 parking spaces (1.22 spaces per unit) satisfies the Zoning requirements. The Project will advance and implement many of the recommendations from the Zoning By-law 2009-189 as the maximum number of parking spaces is not exceeded.

7.2 Proxy Parking Demand

With restrictive maximum limits on the number of parking spaces and to provide further support that the proposed supply of 1.22 spaces per unit will not result in a shortfall of parking, parking data for residential buildings was compiled from parking utilization surveys completed for a typical multi-family building. It is noted that a similar site could not be located within the immediate study area given the high-rise nature of this development; thus, a broader area was utilized that was consistent with high-rise buildings within Halton Region.

Available information about each site, such as the number of units, walking distance to the nearest GO Station, peak parking demand and demand rates, is outlined in **Table 7.4**. Parking surveys are provided in **Appendix I**

TABLE 7.4: RESIDENTIAL PARKING SURVEY RESULTS

Municipality	Address	Distance to Rail Station	Number of Storeys	Number of Units	Type	Demand	
						Peak Parking Demand	Rater Per Unit
Oakville	1260 Marlborough Court	2.4 Km (GO Oakville)	14	222	Resident	82	0.37
					Visitor	26	0.12
					Total	**108**	**0.49**
Milton	100 Millside Drive	2.0 km (GO Milton)	16	154	Resident	123	0.80
					Visitor	20	0.13
					Total	**143**	**0.93**
Burlington	551 Maple Avenue	3.0 km (GO Burlington)	21	186	Resident	149	0.80
					Visitor	19	0.10
					Total	**168**	**0.90**

It should be noted that the proposed development is located within 5.5 km of the GO Oakville Station and is within a similar distance as the residential sites surveyed.

Parking demand rates ranged from 0.49 to 0.93 spaces per unit, which indicates that the developments generally generate less than 1.00 parking space per unit to meet residential and visitor demand.

Chart 7.5 – **7.7** outlines the parking demand trend of the surveyed sites.

CHART 7.5: 1260 MARLBOROUGH COURT PARKING DEMAND TREND

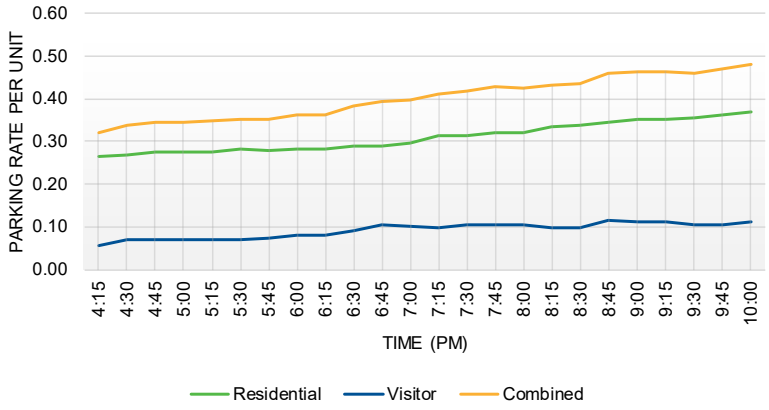


CHART 7.6: 100 MILLSIDE DRIVE PARKING DEMAND TREND

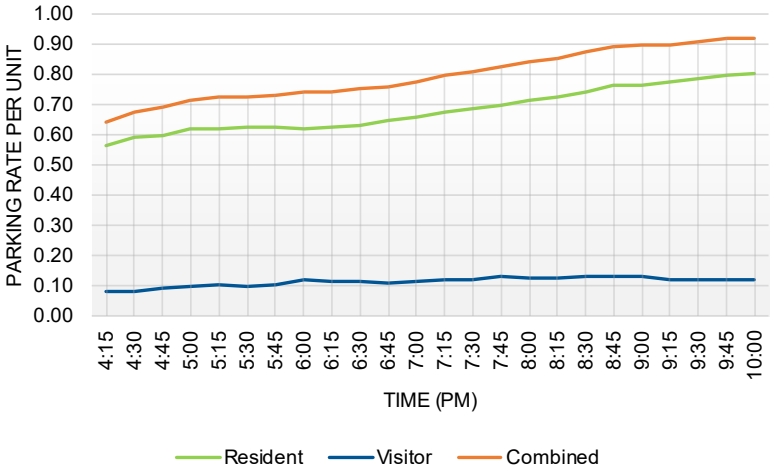
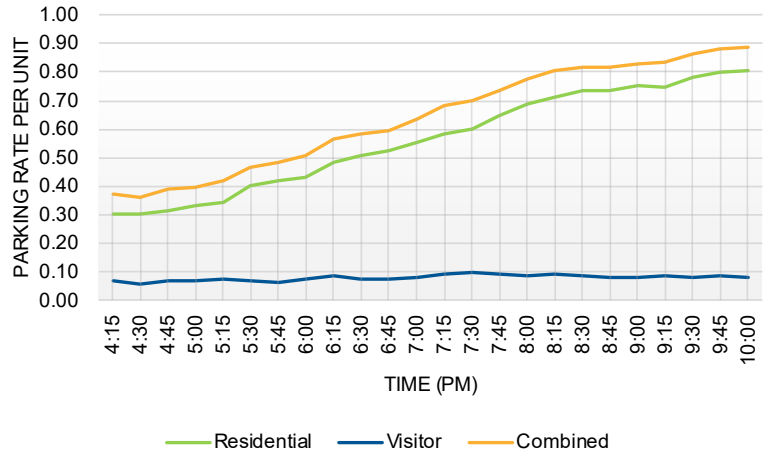


CHART 7.7: 551 MAPLE AVENUE PARKING DEMAND TREND



7.3 ITE Parking Generation

The Institute of Transportation Engineers (ITE) produces a periodic report titled Parking Generation, the prevailing national standard in determining parking demand for development. ITE standards are based on parking demand studies submitted to ITE by various parties, including public agencies, developers and consulting firms. The most recent parking generation manual available is the 6th edition[11] and is a comparative starting point to determine baseline assumptions.

This study includes ITE peak period parking demand rates as guidelines to benchmark how the proposed supply compares to Multi-Family (High-Rise) developments. The following ITE Land Use Code (LUC) was reviewed:

- LUC 222 – Multi-family Housing (High-Rise): High-rise multifamily housing includes apartments and condominiums with more than 10 levels (floors) of residence. They are likely to have one or more elevators. The weekday peak parking demand ratio is 1.02 spaces per dwelling unit (resident and visitor spaces). It should be noted that this rate from ITE is based on less than 5 studies and should be treated as an estimate.

7.4 Projected Demand

A summary of the peak parking demand expected for the proposed development based on the varied methodologies is provided in **Table 7.6**. The following summarizes the parking demand rates utilized:

- The surveyed parking demand suggested that high-rise sites within Halton Region observed a peak parking demand of 0.93 spaces per unit.
- The ITE parking demand rates suggest that high-rise sites were observed with a peak parking demand of 1.02 spaces per unit.

The projected demand is forecast to be in the order of 1,305 spaces.

TABLE 7.8: PROJECTED PARKING DEMAND

Methodology	Units	Parking Rate	Parking Generation (spaces)
Proxy Site Parking Data (Halton Region)	1279	0.93 spaces per unit	1189
ITE Parking Demand	1279	1.02 spaces per unit	1305

[11] Institute of Transportation Engineers, *Parking Generation,* 6th ed., (Washington, DC: ITE, 2023).

The projected demand suggests the peak parking demand for a Multi-Family (High-Rise) development is considerably lower than the maximum parking supply outlined by the Town's by-law. Furthermore, the development proposes a parking supply of 1,566 spaces, less than the maximum parking supply and more than the projected parking demand.

7.5 Bicycle Parking

The Town's *Zoning By-law 2009-189 -Section 5.7* stipulates that developments are required to provide bicycle parking. The minimum bicycle parking rates are as follows:

- Residential: 0.75 spaces per dwelling unit
- Visitor: 0.25 spaces per dwelling unit; and
- Notwithstanding the rates outlined above, bicycle parking shall not exceed 200 spaces.

Based on these requirements, the proposed development is required to provide 200 bicycle spaces: 150 long-term (occupant) and 50 short-term (visitor) spaces.

The site's proposed bicycle parking supply is 968 long-term spaces and 321 short-term spaces, as previously outlined in **Table 7.2**. While the proposed bicycle parking supply exceeds the maximum by-law requirements, the development proposes high-density residential building containing 1279 residential units (816 residential units in Parcel 1 and 463 residential units in Parcel 2). Restricting Parcel 1 and Parcel 2 each to the 200 bicycle space maximum to would result bicycle parking rates of 0.18-0.32 long term spaces/unit and 0.06-0.11 short-term spaces per unit, less than half of the minimum bicycle parking rate.

In order to support shifting modes away from auto orientated travel and towards cycling, additional bicycle parking above the 200 space maximum should be permitted.

7.6 Loading Space Requirements

Zoning By-law 2009-189 does not require a minimum number loading spaces for non-industrial land uses. The subject site proposes one loading space per building for loading and moving activities.

8 Transportation Demand Management

The Town of Oakville is actively engaging the development community to integrate Travel Demand Management (TDM) in all current and future development applications. A TDM Study aims to outline a straightforward process for selecting and implementing TDM measures.

8.1 Area Opportunities

8.1.1 Pedestrians

This area in the Town of Oakville is in the process of being developed; therefore, existing pedestrian facilities are limited along Trafalgar Road but are generally provided along the other streets in the network. Sidewalks are usually on at least one side of the road along Dundas Street, William Halton Parkway, Postridge Drive, Threshing Mills Boulevard, Wheat Boom Drive, and William Coltson Avenue.

The site is within walking distance of several significant retail and transportation opportunities, providing a range of destinations for prospective residents of the proposed building that can be readily accessed without using a car.

The main barrier is the lack of sidewalks on Trafalgar Road between the subject site and Dundas Street. However, the planned widening of Trafalgar Road will include sidewalks, separated bike lanes, and/or multi-use paths on either side of the road. Other improvements include new street lighting, bus shelter infrastructure, and traffic signals.

These facilities will help foster and promote walking trips to/from the development.

8.1.2 Cycling

On-road cycling lanes are not currently provided on the streets in the study area. However, as cyclists are permitted to ride on most roads except controlled-access highways, the lack of a separate bicycle lane will not prohibit this type of travel, particularly for this development.

Reviewing the Town of Oakville's Active Transportation Master Plan (ATPM) document for cycling network plans and existing facilities within the proposed development indicates multi-use trails are proposed along Trafalgar Road and are planned to be added with the widening of Trafalgar Road.

8.1.3 Oakville Transit

Oakville Transit owns and operates the public transit system in Oakville. Route 1 – Trafalgar operates along Trafalgar Road between the Oakville GO station and the Trafalgar/407 GO Carpool lot.

As the area is being developed, the closest transit stop is located approximately 1.0 km south of the subject site at Trafalgar Road and Dundas Street.

Future planned improvements to the Trafalgar corridor include HOV lanes to aid bus operations and new bus shelters and stops.

These facilities will help foster and promote transit trips to/from the development.

8.1.4 GO Inter-Regional Transit

The proposed development is approximately 2 km from the 407/GO Carpool lot, located south of Highway 407, and 8.5 km from the Oakville GO Station.

Future planned enhancements to the Oakville Transit service to the area will improve the connectivity of the subject site to the 407/GO Carpool lot and the Oakville GO Station.

8.1.5 Ride-Hailing & Car Services

Ride-hailing car services in the Town of Oakville include Oakville Taxi, Oakville United Taxi, A1 Oakville Taxi, Halton Taxi Svc, Blue Line Taxi, Oakville Para-transit and Uber/Lyft. These services offer on-demand private car services. Their increasing share of the mobility markets offers added flexibility and reliability to residents, visitors, and employees and supports travel opportunities other than the private automobile.

8.2 Proposed Strategies

The development will implement the proposed strategies to reduce the number of auto-trips made to/from the Development.

8.2.1 Walking

Accessibility to and from development is essential in helping ensure that those who can walk do. Proper pedestrian connections from the surrounding community to the development should be constructed to ensure safety and enhance the overall pedestrian experience.

The proposed site plan should include connections to the sidewalks on William Coltson Avenue and the future sidewalks on Trafalgar Road, New Road A, and New Road B.

A pedestrian crossing signal is proposed along Road B, south of the Phase 1 development, to facilitate pedestrian network connectivity.

All on-site sidewalks should be well-lit and confirm the Town of Oakville's design standards and the Accessibility for Ontarians with Disabilities Act (AODA) design standards.

8.2.2 Cycling

Increasing bicycling to and within Oakville is crucial for reducing vehicle trips. The number of people bicycling is directly related to the quality of the bicycling network and the presence of bicycle facilities. While no dedicated cycling facilities exist in the study area, the Trafalgar corridor improvements show multi-use pathways to be added on either side of Trafalgar Road.

The developer should provide on-site short- and long-term bike parking to promote cycling.

8.2.3 Transit

With the Trafalgar corridor improvements, bus bays and bus shelters are planned between Dundas Street and William Halton Parkway.

No additional transit-related infrastructure is proposed as part of this development application. It is anticipated that through regular internal reviews, Oakville Transit will monitor the amenities provided at the transit stops throughout the Town and based on the demand, will address the need for additional amenities.

8.2.4 Parking Supply

Finding the right balance needed to support the Town's goals is critical, mainly since parking is an expensive resource. Sufficient automobile parking is necessary for the development to be successful. However, too much parking can encourage traffic congestion, limit the ability to meet trip reduction goals, increase project costs, and impact site design and aesthetics.

If free and unregulated parking is provided, there is little incentive for many residents and visitors to use alternative modes of transportation. Free and abundant parking encourages people to drive alone rather than car or vanpool, drop off or pick up, walk, cycle, or take transit.

Alternative sustainable modes are substantially disadvantaged when too much free parking is provided.

The development will lease parking spaces separately from purchasing a unit to encourage residents to utilize sustainable travel modes. This is more equitable and efficient since occupants are not forced to pay for parking they do not need, allowing consumers to adjust their parking supply to reflect their needs.

8.2.5 Travel Planning/Education/Promotion

The developer should consider increasing awareness of sustainable transportation opportunities for residents and visitors of the development. Residents should be provided with a welcome package outlining the available transit routes and active transportation options, such as bicycle parking and the development's proximity to the existing bicycle network. A travel plan will engage and educate residents on the available sustainable modes of travel and how to overcome obstacles that may be perceived.

General education of all modes of transportation, including their benefits and how to use them best, is critical to TDM's success. The strategies require cooperation and coordination with several partners, including transit providers, building owners, area municipalities, and residents.

By educating about sustainable modes of travel and providing travel demand management tools and incentives, TDM can be further integrated within the development to promote all modes of transportation.

The applicant will develop marketing/informational materials as part of their initial scope of work. Information on transportation options and links to the appropriate website should be conveyed to all prospective residents as a component of a resident welcome packet.

Available information should include schedules for local and regional transit services, bicycle and trail networks and the location of retail and recreational establishments.

9 Conclusions and Recommendations

9.1 Conclusions

Transportation Impact Assessment

The proposed development will generate approximately 300 new vehicle trips during the weekday AM peak hour and 356 new vehicle trips during the weekday PM peak hour.

Under the future traffic conditions, the north, south, and east accesses are expected to operate at LOS A or better during the weekday peak hours under the Total conditions.

It is acknowledged that deficiencies currently exist at specific locations, primarily along the Trafalgar Road corridor within the study area. Trafalgar Road will be widened from four to six lanes to provide additional road capacity and accommodate future growth. While most intersections in the study area will operate with acceptable service levels, certain movements and intersections, such as Trafalgar Road at Dundas Street, are forecast to operate with significant delays in the future background horizons.

Regarding development traffic implications, similar levels of operation are generally expected under the Total conditions with site-generated traffic volumes. However, due to the congested forecasted operations of certain movements under background conditions, additional traffic significantly increases delay.

Due to the levels of congestion forecast in the future horizon, even with the Trafalgar Road widening, additional remedial measures to improve intersection capacity are not likely to be implemented. Instead, future transportation network improvements are expected to primarily focus on public transit infrastructure.

By focusing on shifting commuter travel to public transit, intersection operations could be expected to maintain the status quo (capacity conditions during peak hours) or possibly improve if fewer vehicles traverse the intersections during the peak hours of a typical weekday.

The proposed internal road network of collector and local road types would have traffic volumes appropriate for these road classes. The proposed lane configurations and traffic controls are adequate for the forecasted site traffic. The basic lane requirements for all roads within the lands would be one lane in each direction. With further refinement of the concept plan, consideration would be given to the final road

right-of-way, cross-section details, the need for exclusive turn lanes at intersections, and traffic control requirements.

Sustainable Transportation

The proposed development can be well served by transit through the extension of existing and future Transit bus routes, with buses operating in mixed traffic. The route coverage density should attempt to place most properties within 400 metres of a bus stop.

The proposed roadways within the development area can provide the framework for a network of pedestrian and cycling routes. Collector roadways are the preferred location for bike lanes as these roads generally carry lower traffic volumes at slower speeds than arterials and provide direct property access to residential land uses. The active transportation strategy will evolve as development occurs, given that the lands are predominately vacant currently with no existing walking or cycling infrastructure.

To complement and build upon the development location and accessibility and enhance the non-auto-dependent mobility of prospective residents, the development will consider adopting a Transportation Demand Management (TDM) plan with the following measures to reduce dependency on vehicular travel. These measures include providing pedestrian connections to existing and future sidewalks, provision of bicycle spaces, charging parking as a separate cost to occupants, and providing welcome packets outlining the available transportation modes and schedules.

Parking

Zoning By-law 2009-189 is the current in-force By-law for the Town of Oakville for lands between Dundas Street and Highway 407. In contrast to generic minimum parking requirements, Zoning By-law 2009-189 provides maximum limits to restrict the number of spaces that can be constructed rather than establish a minimum number that must be provided.

The site concept plan includes 1566 parking spaces (1352 occupants and 214 visitor spaces) for Parcel 1 and Parcel 2. Overall, the proposed supply of 1,566 parking spaces (1.22 spaces per unit) satisfies the Zoning requirements.

The residential parking supply is supported based on a review of parking proxy data collected from residential buildings within Halton Region and ITE parking demand rates. Based on the data, the projected demand is forecast to be in the order of 1,305 spaces, well within the proposed parking supply.

The Town's *Zoning By-law 2009-189 -Section 5.7* stipulates that developments are required to provide bicycle parking, with minimum bicycle parking rates and maximum supplies outlined. Based on these requirements, the proposed development is required to provide 200 bicycle spaces: 150 long-term (occupant) and 50 short-term (visitor) spaces. The site's bicycle parking supply is 968 long-term spaces and 321 short-term spaces. In order to support shifting modes away from auto orientated travel and towards cycling, additional bicycle parking above the 200-space maximum should be permitted.

9.2 Recommendations

Based on the findings of this study, the following recommendations are identified:

- The Town/Region provides exclusive left-turn phases for the following intersections:
  - Burnhamthrope Road E at Trafalgar Road – northbound, eastbound, and westbound left-turn phases
  - Wheat Boom Drive at Trafalgar Road – southbound left-turn phase
  - Dundas Street at Postridge Drive – northbound and southbound left-turn phases
- The Town/Region continues monitoring signalized intersection operations and adjusting signal timings as needed.
- The Town focuses on shifting commuter travel to public transit and non-auto modes to maintain/improve intersection operations.
- The Town to support shifting modes away from auto orientated travel and towards cycling by permitting the additional bicycle parking above the 200 space maximum.
- On-site pedestrian sidewalks are recommended to be well-lit and conform to the Town of Oakville's design standards and the Accessibility for Ontarians with Disabilities Act (AODA) design standards.
- Applicant implements unbundled resident parking where parking spaces are provided as a separate cost to residents.
- Applicants provide a comprehensive TDM plan to maximize alternative mobility opportunities for residents and visitors.

Appendix A

Terms of Reference

Greg Lue

From: Eric Chan <eric.chan@oakville.ca>
Sent: May 18, 2023 10:26 AM
To: Greg Lue
Cc: Adam Makarewicz; Aquisha Khan
Subject: RE: 220208 - 3275/3301 Trafalgar Road, Oakville - Traffic Impact Study - Terms of Reference

I agree. Thanks

From: Greg Lue <glue@ptsl.com>
Sent: Thursday, May 18, 2023 9:41 AM
To: Eric Chan <eric.chan@oakville.ca>
Cc: Adam Makarewicz <amakarewicz@ptsl.com>; Aquisha Khan <aquisha.khan@oakville.ca>
Subject: RE: 220208 - 3275/3301 Trafalgar Road, Oakville - Traffic Impact Study - Terms of Reference

Thanks Eric. I was just looking at the map again and I seemed to have skipped over an intersection on Dundas east of Trafalgar. It would probably make more sense for it to be Dundas Street & Postridge Drive (signalized).

Thanks,

Greg Lue, M.A.Sc., P.Eng.
Project Manager
(he/him)

Paradigm Transportation Solutions Limited
p: 905.381.2229 x307
m: 905.981.7479

**** Paradigm is now operating on a 4-day workweek. Our offices are closed Fridays. ****

From: Eric Chan <eric.chan@oakville.ca>
Sent: Wednesday, May 17, 2023 4:25 PM
To: Greg Lue <glue@ptsl.com>
Cc: Adam Makarewicz <amakarewicz@ptsl.com>; Aquisha Khan <aquisha.khan@oakville.ca>
Subject: RE: 220208 - 3275/3301 Trafalgar Road, Oakville - Traffic Impact Study - Terms of Reference

Hi Greg,
I agree with adding Dundas Street @ Threshing Mill Blvd/Eighth Line intersection (instead of Dundas St @ William Coltson Ave).

Thanks,
Eric

From: Greg Lue <glue@ptsl.com>
Sent: Wednesday, May 17, 2023 2:52 PM
To: Eric Chan <eric.chan@oakville.ca>
Cc: Adam Makarewicz <amakarewicz@ptsl.com>
Subject: RE: 220208 - 3275/3301 Trafalgar Road, Oakville - Traffic Impact Study - Terms of Reference

Hi Eric,
Thanks for the quick response. Our study area is outlined below with the intersections added by Aquisha in green (figure attached). As our site is located at 3275 Trafalgar Road, about 350m north of Trafalgar Road at Threshing Mill Boulevard (signalized), our study area includes intersections along Trafalgar Road between Burnhamthorpe Road E and Dundas Street.

As for intersections on Dundas Street which could be added, I don't think either the intersections east or west of Trafalgar would be particularly useful for our study area since it would mainly be east/west through traffic. It could possibly be Dundas Street at Threshing Mill Blvd but we don't expect a significant amount of traffic to infiltrate through the neighbourhood to access the site.

- ***[AK:]*** Trafalgar Road at William Halton Parkway (signalized)
- Trafalgar Road at Burnhamthorpe Road East (signalized)
- Trafalgar Road at Threshing Mill Boulevard (signalized)
- Trafalgar Road at Wheat Boom Drive (signalized)
- Trafalgar Road at Dundas Street (signalized)
- ***[AK:]*** Dundas Street & William Coltson Avenue (unsigalized)
- Threshing Mill Boulevard at William Coltson Avenue (unsignalized)

Let us know what you think.

Thanks !

Greg Lue, M.A.Sc., P.Eng.
Project Manager
(he/him)

Paradigm Transportation Solutions Limited
p: 905.381.2229 x307
m: 905.981.7479

*** *Paradigm is now operating on a 4-day workweek. Our offices are closed Fridays.* ***

From: Eric Chan <eric.chan@oakville.ca>
Sent: Wednesday, May 17, 2023 2:30 PM
To: Greg Lue <glue@ptsl.com>
Cc: Adam Makarewicz <amakarewicz@ptsl.com>
Subject: RE: 220208 - 3275/3301 Trafalgar Road, Oakville - Traffic Impact Study - Terms of Reference

Hi Greg,
Thanks for the email. Do you have a study area, and would you take a best guess? I'd be happy to help verify. Otherwise, we may need to wait until she's back from vacation.

Eric

Eric Chan, P.Eng., PMP
Manager - Transportation Planning
Transportation and Engineering
Town of Oakville | 905-845-6601, ext.3304 | www.oakville.ca

From: Greg Lue <glue@ptsl.com>
Sent: Wednesday, May 17, 2023 2:16 PM
To: Eric Chan <eric.chan@oakville.ca>
Cc: Adam Makarewicz <amakarewicz@ptsl.com>
Subject: RE: 220208 - 3275/3301 Trafalgar Road, Oakville - Traffic Impact Study - Terms of Reference

Hi Eric,
We received some comments back from Aquisha about the scope for a TIS in Oakville and I was hoping to get some clarification on one of the intersections recommended to be added to the study area.

The intersection of Dundas Street & William Coltson Avenue (unsigalized) that was added, can you clarify where that is located?

We're looking to schedule some traffic counts but those roads don't appear to intersect so I'm wondering which intersection was to be added to our study area.

Thanks,

Greg Lue, M.A.Sc., P.Eng.
Project Manager
(he/him)

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m: 905.981.7479

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From: Greg Lue <glue@ptsl.com>
Sent: Wednesday, May 17, 2023 2:11 PM
To: Aquisha Khan <aquisha.khan@oakville.ca>; Krusto, Matt <Matt.Krusto@halton.ca>
Cc: Adam Makarewicz <amakarewicz@ptsl.com>
Subject: RE: 220208 - 3275/3301 Trafalgar Road, Oakville - Traffic Impact Study - Terms of Reference

Hi Aquisha,
Thanks for the comments. For the intersection of Dundas Street & William Coltson Avenue (unsigalized) that you added, can you clarify where that is located? Those roads don't seem to intersect.

Thanks,

Greg Lue, M.A.Sc., P.Eng.
Project Manager
(he/him)

Paradigm Transportation Solutions Limited
p: 905.381.2229 x307
m: 905.981.7479

*** Paradigm is now operating on a 4-day workweek. Our offices are closed Fridays. ***

From: Aquisha Khan <aquisha.khan@oakville.ca>
Sent: Friday, May 12, 2023 1:40 PM
To: Greg Lue <glue@ptsl.com>; Krusto, Matt <Matt.Krusto@halton.ca>
Cc: Adam Makarewicz <amakarewicz@ptsl.com>
Subject: RE: 220208 - 3275/3301 Trafalgar Road, Oakville - Traffic Impact Study - Terms of Reference

Hi Greg;

The preliminary site concept plan should include more details, road names, aerial location, site details, access locations, road/parking dimensions etc..
For the TOR please see my comments to the below in green:

Have a wonderful day 😊!

Aquisha Khan, P. Eng.,
Transportation Engineer, East Oakville
Transportation Planning Services,

Aquisha Khan, P. Eng.
Transportation Engineer
Transportation and Engineering
Town of Oakville | 905-845-6601, ext.3236 | www.oakville.ca

Vision: To be the most livable town in Canada

From: Greg Lue <glue@ptsl.com>
Sent: May 4, 2023 11:15 AM
To: Krusto, Matt <Matt.Krusto@halton.ca>; Aquisha Khan <aquisha.khan@oakville.ca>
Cc: Adam Makarewicz <amakarewicz@ptsl.com>
Subject: 220208 - 3275/3301 Trafalgar Road, Oakville - Traffic Impact Study - Terms of Reference

Hi all,

Paradigm Transportations Solutions Limited has been retained to conduct a Transportation Impact Analysis for a proposed development of 3275-3301 Trafalgar Road in the Town of Oakville. The subject site is located on the east side of Trafalgar Road, generally north of Threshing Mill Boulevard. The property owner proposes to develop the lands to accommodate several family blocks with approximately 2,448 units.
Vehicle access is proposed through a new municipal roadway to Trafalgar Road. A north/south road is also proposed within the development lands that will align opposite William Coltson Avenue. Given the scale, it is assumed the development will be constructed within three phases.
A preliminary site concept plan is attached.

Proposed Terms of Reference
Study Area Intersections

- ***[AK:]*** Trafalgar Road at William Halton Parkway (signalized)
- Trafalgar Road at Burnhamthorpe Road East (signalized)
- Trafalgar Road at Threshing Mill Boulevard (signalized)
- Trafalgar Road at Wheat Boom Drive (signalized)
- Trafalgar Road at Dundas Street (signalized)
- ***[AK:]*** Dundas Street & William Coltson Avenue (unsigalized)
- Threshing Mill Boulevard at William Coltson Avenue (unsignalized)
- Three driveway connections

Existing Data

- Traffic counts were previously collected in 2022 and will be grown to a 2023 base year using a ~~1~~***[AK:]*** 2% annual growth rate.

[AK:] where traffic counts is not available from the Town/Region or is more than 3 years old, the consultant will be responsible to undertake new traffic counts and provided in the Appendices.

Horizon Years

[AK:] Please include 5yr and 10 years horizons post the full build-out of the subdivision (i.e. post Phase 3).

- 2023 Base Year
- Phase 1 build-out

- Phase 2 build-out
- Phase 3 build-out

Analysis Periods

- Weekday AM and PM Peak hour

Analysis

- Synchro 10 ***[AK:]*** Synchro version 11 is available – please use
- HCM 2000 ***[AK:]*** HCM 2010 is available. – please use
- SimTraffic Queueing (five 60-min iterations)

Background Traffic

- Generalized growth rate ~~1~~ [AK:] 2% per annum
- A review of the study area identified the following developments. Town of Oakville– can you comment if they should be included and provide any relevant studies or inputs to estimate the traffic for the site(s)?
    - [AK:] BC Trafalgar - 3220 William Coltson Avenue - 22 storey condominium building, with 356 residential condominium units
    - [AK:] MC OakVillage Phase 3 - 335, 345 and 349 Wheat Boom Drive - 536 residential units
    - Green Ginger - Trafalgar Road (North of Dundas on the west side) - 723 freehold townhouse units

  Add the following background developments:
    - Argo Trafalgar Corporation - Part of Lot 12, Concession 2, N.D.S. - OPA 1212.01
    - Infrastructure Ontario - 4233, 4040 and 4180 Trafalgar Road - OPA 1213.01
    - MC OakVillage Phase 4A/B - 3075 Trafalgar Road - 1312.012/02
    - MC Oakvillage Phase 4C - 3075 Trafalgar Road - 1312.012/03
    - 3064 Trafalgar Road Inc. - 3064 Trafalgar Road - 1313.006/01
    - Great Gulf - Green Ginger Developments Inc. & Clear-Day Investments Limited - 145 Dundas Street East - 1314.003/01

All the information for the above development applications can be found online, if you require information not available online for the above, please contact the town planner assigned to the project. Their emails are listed with the associated file.

Site Traffic Estimates

- ITE Trip Generation Data 11th Edition
- No modal split reductions [AK:] why?

Site Traffic Distribution

- Existing travel patterns/TTS

Access and Circulation Review

- ACR will be conducted to ensure compliance of the proposed development plan with review agency requirements and applicable industry guidelines

TDM Plan

- Will outline existing and proposed TDM measures and assess their likely effectiveness for the proposed development

[AK:] Provide information for AT connectivity's, exiting and future.

Report

- We will document the study methodologies, findings, and conclusions in a ~~traffic brief~~ [AK:] Transportation Impact Study with an Executive Summary and appendices containing the detailed analysis results and any data collected.

[AK:] Please include a Parking Demand/Justification Section to this report.

Please let us know if you have any comments on the proposed terms of reference.

Thanks,

Greg Lue, M.A.Sc., P.Eng.
Project Manager
(he/him)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Road, Cambridge ON N1R 8J8
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Appendix B

Existing Traffic Data

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & William Halton Parkway
Site Code: 220208
Start Date: 05/25/2023

Turning Movement Data

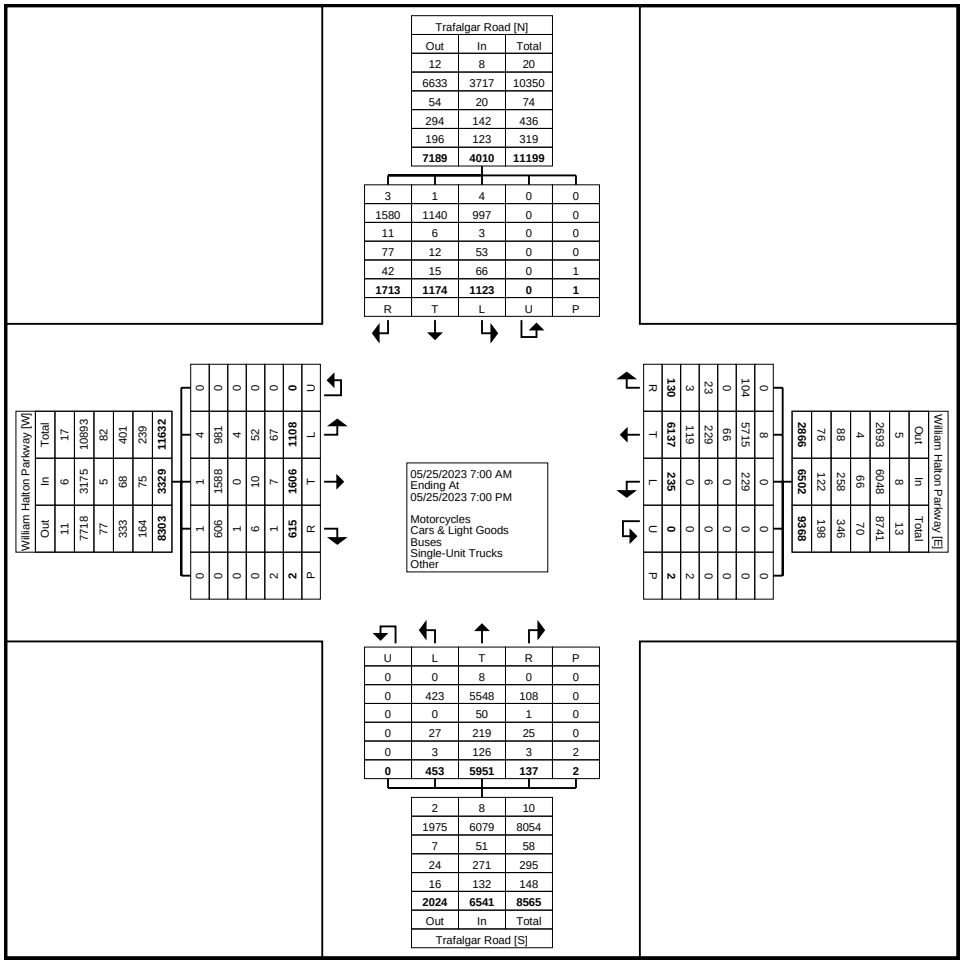
Start Time	William Halton Parkway Eastbound						William Halton Parkway Westbound						Trafalgar Road Northbound						Trafalgar Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	53	43	14	0	0	110	3	139	5	0	0	147	4	124	5	0	0	133	53	8	36	0	0	97	487
7:15 AM	57	57	22	0	0	136	6	155	4	0	1	165	22	146	3	0	0	171	57	16	47	0	0	120	592
7:30 AM	54	68	29	0	0	151	5	191	5	0	0	201	12	169	5	0	0	186	54	14	35	0	0	103	641
7:45 AM	50	104	41	0	0	195	5	198	8	0	0	211	24	181	7	0	0	212	51	20	34	0	0	105	723
Hourly Total	214	272	106	0	0	592	19	683	22	0	1	724	62	620	20	0	0	702	215	58	152	0	0	425	2443
8:00 AM	38	104	34	0	0	176	7	198	4	0	0	209	30	195	5	0	0	230	38	18	20	0	0	76	691
8:15 AM	50	102	40	0	0	192	3	188	7	0	0	198	23	189	6	0	0	218	50	15	33	0	0	98	706
8:30 AM	36	101	46	0	0	183	10	189	9	0	0	208	24	185	8	0	0	217	36	40	35	0	0	111	719
8:45 AM	58	95	49	0	0	202	4	201	4	0	0	209	18	191	4	0	0	213	58	26	31	0	0	115	739
Hourly Total	182	402	169	0	0	753	24	776	24	0	0	824	95	760	23	0	0	878	182	99	119	0	0	400	2855
9:00 AM	26	68	28	0	0	122	8	162	7	0	0	177	18	161	7	0	0	186	26	19	18	0	0	63	548
9:15 AM	45	67	24	0	0	136	4	127	7	0	1	138	9	126	7	0	1	142	46	18	25	0	1	89	505
9:30 AM	39	45	18	0	0	102	12	138	5	0	0	155	7	135	5	0	0	147	38	16	34	0	0	88	492
9:45 AM	22	42	13	0	0	77	6	120	3	0	0	129	7	118	3	0	0	128	22	18	30	0	0	70	404
Hourly Total	132	222	83	0	0	437	30	547	22	0	1	599	41	540	22	0	1	603	132	71	107	0	1	310	1949
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:30 AM	28	21	11	0	0	60	7	141	0	0	0	148	3	138	2	0	0	143	29	19	29	0	0	77	428
11:45 AM	32	42	12	0	0	86	5	111	2	0	0	118	14	122	2	0	0	138	38	24	35	0	0	97	439
Hourly Total	60	63	23	0	0	146	12	252	2	0	0	266	17	260	4	0	0	281	67	43	64	0	0	174	867
12:00 PM	26	19	6	0	0	51	10	133	1	0	0	144	8	139	6	0	0	153	26	28	39	0	0	93	441
12:15 PM	26	35	8	0	0	69	9	136	0	0	0	145	9	146	3	0	0	158	30	33	44	0	0	107	479
12:30 PM	23	23	13	0	0	59	5	137	6	0	0	148	4	133	6	0	0	143	23	29	32	0	0	84	434
12:45 PM	31	24	7	0	0	62	9	130	5	0	0	144	5	127	5	0	0	137	31	29	30	0	0	90	433
Hourly Total	106	101	34	0	0	241	33	536	12	0	0	581	26	545	20	0	0	591	110	119	145	0	0	374	1787
1:00 PM	29	24	7	0	0	60	5	141	3	0	0	149	6	139	3	0	0	148	29	22	35	0	0	86	443
1:15 PM	23	31	9	0	0	63	2	120	7	0	0	129	4	121	7	0	0	132	23	25	39	0	0	87	411
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	52	55	16	0	0	123	7	261	10	0	0	278	10	260	10	0	0	280	52	47	74	0	0	173	854
4:00 PM	30	35	6	0	1	71	10	247	2	0	0	259	11	227	2	0	0	240	30	73	105	0	0	208	778
4:15 PM	28	39	19	0	0	86	9	335	4	0	0	348	20	322	4	0	0	346	30	70	109	0	0	209	989
4:30 PM	34	33	21	0	0	88	17	293	4	0	0	314	27	284	4	0	0	315	35	67	135	0	0	237	954
4:45 PM	36	46	18	0	0	100	5	306	3	0	0	314	22	276	2	0	0	300	36	68	107	0	0	211	925
Hourly Total	128	153	64	0	1	345	41	1181	13	0	0	1235	80	1109	12	0	0	1201	131	278	456	0	0	865	3646
5:00 PM	23	28	17	0	0	68	14	305	4	0	0	323	23	294	4	0	0	321	23	70	111	0	0	204	916
5:15 PM	33	67	12	0	0	112	11	275	7	0	0	293	19	269	6	0	0	294	34	80	106	0	0	220	919

5:30 PM	32	46	13	0	1	91	7	307	5	0	0	319	23	295	7	0	0	325	32	71	97	0	0	200	935
5:45 PM	28	49	15	0	0	92	4	246	3	0	0	253	21	241	3	0	0	265	28	39	57	0	0	124	734
Hourly Total	116	190	57	0	1	363	36	1133	19	0	0	1188	86	1099	20	0	0	1205	117	260	371	0	0	748	3504
6:00 PM	31	35	15	0	0	81	10	228	1	0	0	239	11	228	1	0	0	240	31	50	74	0	0	155	715
6:15 PM	32	42	20	0	0	94	8	229	2	0	0	239	10	226	2	0	1	238	31	60	58	0	0	149	720
6:30 PM	31	43	13	0	0	87	9	154	0	0	0	163	7	152	1	0	0	160	30	60	45	0	0	135	545
6:45 PM	24	28	15	0	0	67	6	157	3	0	0	166	8	152	2	0	0	162	25	29	48	0	0	102	497
Hourly Total	118	148	63	0	0	329	33	768	6	0	0	807	36	758	6	0	1	800	117	199	225	0	0	541	2477
Grand Total	1108	1606	615	0	2	3329	235	6137	130	0	2	6502	453	5951	137	0	2	6541	1123	1174	1713	0	1	4010	20382
Approach %	33.3	48.2	18.5	0.0	-	-	3.6	94.4	2.0	0.0	-	-	6.9	91.0	2.1	0.0	-	-	28.0	29.3	42.7	0.0	-	-	-
Total %	5.4	7.9	3.0	0.0	-	16.3	1.2	30.1	0.6	0.0	-	31.9	2.2	29.2	0.7	0.0	-	32.1	5.5	5.8	8.4	0.0	-	19.7	-
Motorcycles	4	1	1	0	-	6	0	8	0	0	-	8	0	8	0	0	-	8	4	1	3	0	-	8	30
% Motorcycles	0.4	0.1	0.2	-	-	0.2	0.0	0.1	0.0	-	-	0.1	0.0	0.1	0.0	-	-	0.1	0.4	0.1	0.2	-	-	0.2	0.1
Cars & Light Goods	981	1588	606	0	-	3175	229	5715	104	0	-	6048	423	5548	108	0	-	6079	997	1140	1580	0	-	3717	19019
% Cars & Light Goods	88.5	98.9	98.5	-	-	95.4	97.4	93.1	80.0	-	-	93.0	93.4	93.2	78.8	-	-	92.9	88.8	97.1	92.2	-	-	92.7	93.3
Buses	4	0	1	0	-	5	0	66	0	0	-	66	0	50	1	0	-	51	3	6	11	0	-	20	142
% Buses	0.4	0.0	0.2	-	-	0.2	0.0	1.1	0.0	-	-	1.0	0.0	0.8	0.7	-	-	0.8	0.3	0.5	0.6	-	-	0.5	0.7
Single-Unit Trucks	52	10	6	0	-	68	6	229	23	0	-	258	27	219	25	0	-	271	53	12	77	0	-	142	739
% Single-Unit Trucks	4.7	0.6	1.0	-	-	2.0	2.6	3.7	17.7	-	-	4.0	6.0	3.7	18.2	-	-	4.1	4.7	1.0	4.5	-	-	3.5	3.6
Articulated Trucks	66	0	0	0	-	66	0	118	3	0	-	121	3	126	3	0	-	132	66	1	37	0	-	104	423
% Articulated Trucks	6.0	0.0	0.0	-	-	2.0	0.0	1.9	2.3	-	-	1.9	0.7	2.1	2.2	-	-	2.0	5.9	0.1	2.2	-	-	2.6	2.1
Bicycles on Road	1	7	1	0	-	9	0	1	0	0	-	1	0	0	0	0	-	0	0	14	5	0	-	19	29
% Bicycles on Road	0.1	0.4	0.2	-	-	0.3	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	1.2	0.3	-	-	0.5	0.1
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	50.0	-	-	-	-	-	0.0	-	-	-	-	-	50.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	50.0	-	-	-	-	-	100.0	-	-	-	-	-	50.0	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & William Halton Parkway
Site Code: 220208
Start Date: 05/25/2023



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & William Halton Parkway
Site Code: 220208
Start Date: 05/25/2023

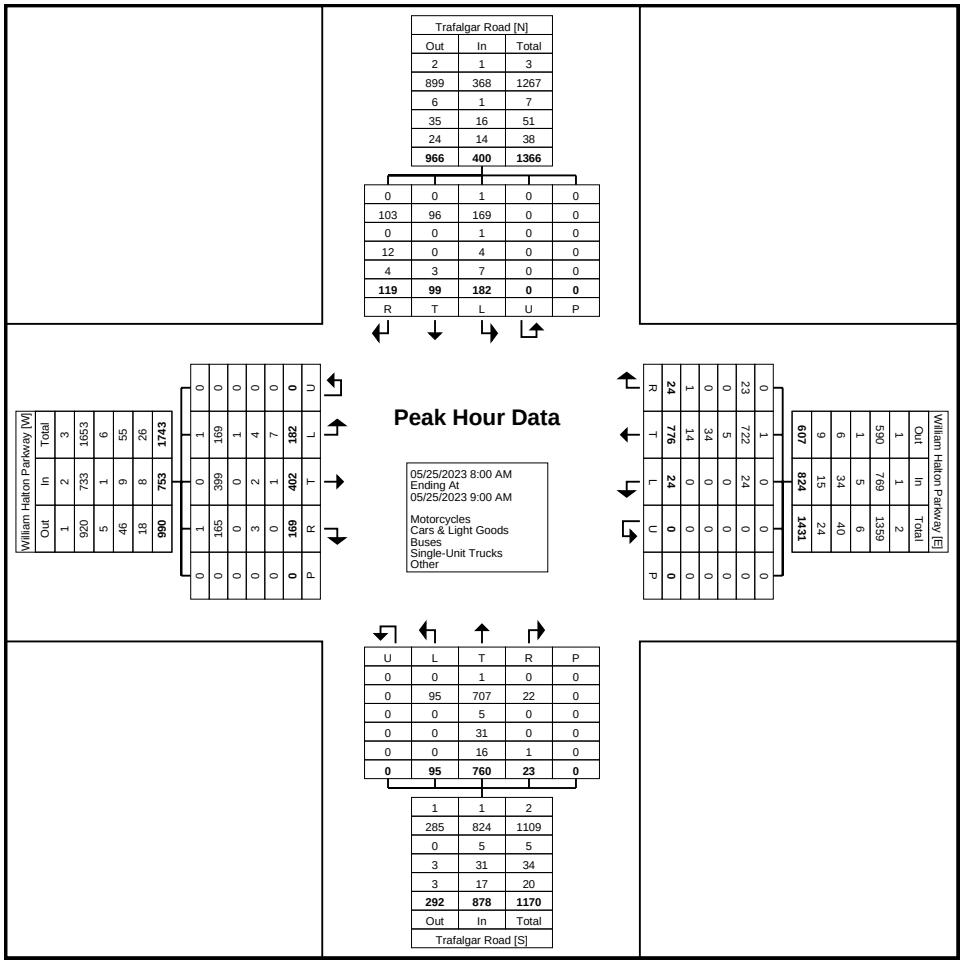
Turning Movement Peak Hour Data (8:00 AM)

Start Time	William Halton Parkway Eastbound						William Halton Parkway Westbound						Trafalgar Road Northbound						Trafalgar Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
8:00 AM	38	104	34	0	0	176	7	198	4	0	0	209	30	195	5	0	0	230	38	18	20	0	0	76	691
8:15 AM	50	102	40	0	0	192	3	188	7	0	0	198	23	189	6	0	0	218	50	15	33	0	0	98	706
8:30 AM	36	101	46	0	0	183	10	189	9	0	0	208	24	185	8	0	0	217	36	40	35	0	0	111	719
8:45 AM	58	95	49	0	0	202	4	201	4	0	0	209	18	191	4	0	0	213	58	26	31	0	0	115	739
Total	182	402	169	0	0	753	24	776	24	0	0	824	95	760	23	0	0	878	182	99	119	0	0	400	2855
Approach %	24.2	53.4	22.4	0.0	-	-	2.9	94.2	2.9	0.0	-	-	10.8	86.6	2.6	0.0	-	-	45.5	24.8	29.8	0.0	-	-	-
Total %	6.4	14.1	5.9	0.0	-	26.4	0.8	27.2	0.8	0.0	-	28.9	3.3	26.6	0.8	0.0	-	30.8	6.4	3.5	4.2	0.0	-	14.0	-
PHF	0.784	0.966	0.862	0.000	-	0.932	0.600	0.965	0.667	0.000	-	0.986	0.792	0.974	0.719	0.000	-	0.954	0.784	0.619	0.850	0.000	-	0.870	0.966
Motorcycles	1	0	1	0	-	2	0	1	0	0	-	1	0	1	0	0	-	1	1	0	0	0	-	1	5
% Motorcycles	0.5	0.0	0.6	-	-	0.3	0.0	0.1	0.0	-	-	0.1	0.0	0.1	0.0	-	-	0.1	0.5	0.0	0.0	-	-	0.3	0.2
Cars & Light Goods	169	399	165	0	-	733	24	722	23	0	-	769	95	707	22	0	-	824	169	96	103	0	-	368	2694
% Cars & Light Goods	92.9	99.3	97.6	-	-	97.3	100.0	93.0	95.8	-	-	93.3	100.0	93.0	95.7	-	-	93.8	92.9	97.0	86.6	-	-	92.0	94.4
Buses	1	0	0	0	-	1	0	5	0	0	-	5	0	5	0	0	-	5	1	0	0	0	-	1	12
% Buses	0.5	0.0	0.0	-	-	0.1	0.0	0.6	0.0	-	-	0.6	0.0	0.7	0.0	-	-	0.6	0.5	0.0	0.0	-	-	0.3	0.4
Single-Unit Trucks	4	2	3	0	-	9	0	34	0	0	-	34	0	31	0	0	-	31	4	0	12	0	-	16	90
% Single-Unit Trucks	2.2	0.5	1.8	-	-	1.2	0.0	4.4	0.0	-	-	4.1	0.0	4.1	0.0	-	-	3.5	2.2	0.0	10.1	-	-	4.0	3.2
Articulated Trucks	7	0	0	0	-	7	0	14	1	0	-	15	0	16	1	0	-	17	7	1	4	0	-	12	51
% Articulated Trucks	3.8	0.0	0.0	-	-	0.9	0.0	1.8	4.2	-	-	1.8	0.0	2.1	4.3	-	-	1.9	3.8	1.0	3.4	-	-	3.0	1.8
Bicycles on Road	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	2	0	0	-	2	3
% Bicycles on Road	0.0	0.2	0.0	-	-	0.1	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	2.0	0.0	-	-	0.5	0.1
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & William Halton Parkway
Site Code: 220208
Start Date: 05/25/2023



Turning Movement Peak Hour Data Plot (8:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & William Halton Parkway
Site Code: 220208
Start Date: 05/25/2023

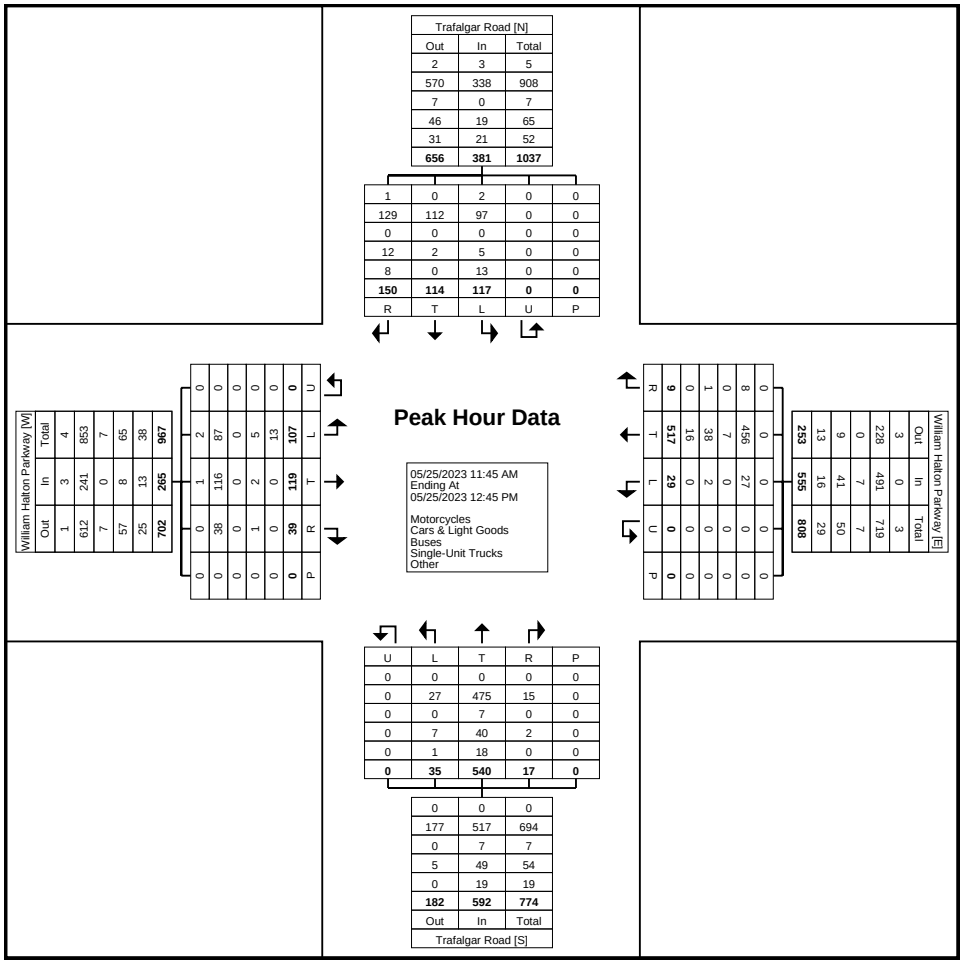
Turning Movement Peak Hour Data (11:45 AM)

Start Time	William Halton Parkway Eastbound						William Halton Parkway Westbound						Trafalgar Road Northbound						Trafalgar Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
11:45 AM	32	42	12	0	0	86	5	111	2	0	0	118	14	122	2	0	0	138	38	24	35	0	0	97	439
12:00 PM	26	19	6	0	0	51	10	133	1	0	0	144	8	139	6	0	0	153	26	28	39	0	0	93	441
12:15 PM	26	35	8	0	0	69	9	136	0	0	0	145	9	146	3	0	0	158	30	33	44	0	0	107	479
12:30 PM	23	23	13	0	0	59	5	137	6	0	0	148	4	133	6	0	0	143	23	29	32	0	0	84	434
Total	107	119	39	0	0	265	29	517	9	0	0	555	35	540	17	0	0	592	117	114	150	0	0	381	1793
Approach %	40.4	44.9	14.7	0.0	-	-	5.2	93.2	1.6	0.0	-	-	5.9	91.2	2.9	0.0	-	-	30.7	29.9	39.4	0.0	-	-	-
Total %	6.0	6.6	2.2	0.0	-	14.8	1.6	28.8	0.5	0.0	-	31.0	2.0	30.1	0.9	0.0	-	33.0	6.5	6.4	8.4	0.0	-	21.2	-
PHF	0.836	0.708	0.750	0.000	-	0.770	0.725	0.943	0.375	0.000	-	0.938	0.625	0.925	0.708	0.000	-	0.937	0.770	0.864	0.852	0.000	-	0.890	0.936
Motorcycles	2	1	0	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	2	0	1	0	-	3	6
% Motorcycles	1.9	0.8	0.0	-	-	1.1	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	1.7	0.0	0.7	-	-	0.8	0.3
Cars & Light Goods	87	116	38	0	-	241	27	456	8	0	-	491	27	475	15	0	-	517	97	112	129	0	-	338	1587
% Cars & Light Goods	81.3	97.5	97.4	-	-	90.9	93.1	88.2	88.9	-	-	88.5	77.1	88.0	88.2	-	-	87.3	82.9	98.2	86.0	-	-	88.7	88.5
Buses	0	0	0	0	-	0	0	7	0	0	-	7	0	7	0	0	-	7	0	0	0	0	-	0	14
% Buses	0.0	0.0	0.0	-	-	0.0	0.0	1.4	0.0	-	-	1.3	0.0	1.3	0.0	-	-	1.2	0.0	0.0	0.0	-	-	0.0	0.8
Single-Unit Trucks	5	2	1	0	-	8	2	38	1	0	-	41	7	40	2	0	-	49	5	2	12	0	-	19	117
% Single-Unit Trucks	4.7	1.7	2.6	-	-	3.0	6.9	7.4	11.1	-	-	7.4	20.0	7.4	11.8	-	-	8.3	4.3	1.8	8.0	-	-	5.0	6.5
Articulated Trucks	13	0	0	0	-	13	0	16	0	0	-	16	1	18	0	0	-	19	13	0	8	0	-	21	69
% Articulated Trucks	12.1	0.0	0.0	-	-	4.9	0.0	3.1	0.0	-	-	2.9	2.9	3.3	0.0	-	-	3.2	11.1	0.0	5.3	-	-	5.5	3.8
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & William Halton Parkway
Site Code: 220208
Start Date: 05/25/2023



Turning Movement Peak Hour Data Plot (11:45 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & William Halton Parkway
Site Code: 220208
Start Date: 05/25/2023

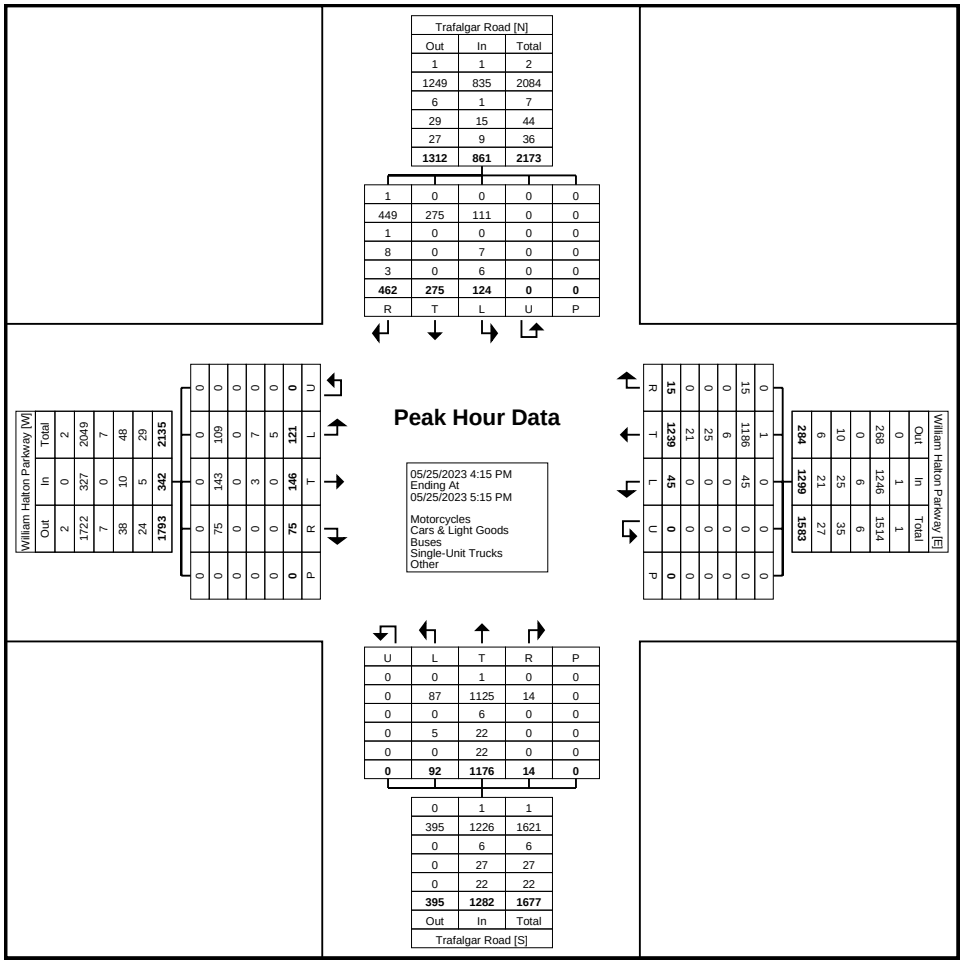
Turning Movement Peak Hour Data (4:15 PM)

Start Time	William Halton Parkway Eastbound						William Halton Parkway Westbound						Trafalgar Road Northbound						Trafalgar Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
4:15 PM	28	39	19	0	0	86	9	335	4	0	0	348	20	322	4	0	0	346	30	70	109	0	0	209	989
4:30 PM	34	33	21	0	0	88	17	293	4	0	0	314	27	284	4	0	0	315	35	67	135	0	0	237	954
4:45 PM	36	46	18	0	0	100	5	306	3	0	0	314	22	276	2	0	0	300	36	68	107	0	0	211	925
5:00 PM	23	28	17	0	0	68	14	305	4	0	0	323	23	294	4	0	0	321	23	70	111	0	0	204	916
Total	121	146	75	0	0	342	45	1239	15	0	0	1299	92	1176	14	0	0	1282	124	275	462	0	0	861	3784
Approach %	35.4	42.7	21.9	0.0	-	-	3.5	95.4	1.2	0.0	-	-	7.2	91.7	1.1	0.0	-	-	14.4	31.9	53.7	0.0	-	-	-
Total %	3.2	3.9	2.0	0.0	-	9.0	1.2	32.7	0.4	0.0	-	34.3	2.4	31.1	0.4	0.0	-	33.9	3.3	7.3	12.2	0.0	-	22.8	-
PHF	0.840	0.793	0.893	0.000	-	0.855	0.662	0.925	0.938	0.000	-	0.933	0.852	0.913	0.875	0.000	-	0.926	0.861	0.982	0.856	0.000	-	0.908	0.957
Motorcycles	0	0	0	0	-	0	0	1	0	0	-	1	0	1	0	0	-	1	0	0	1	0	-	1	3
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.1	0.0	-	-	0.1	0.0	0.1	0.0	-	-	0.1	0.0	0.0	0.2	-	-	0.1	0.1
Cars & Light Goods	109	143	75	0	-	327	45	1186	15	0	-	1246	87	1125	14	0	-	1226	111	275	449	0	-	835	3634
% Cars & Light Goods	90.1	97.9	100.0	-	-	95.6	100.0	95.7	100.0	-	-	95.9	94.6	95.7	100.0	-	-	95.6	89.5	100.0	97.2	-	-	97.0	96.0
Buses	0	0	0	0	-	0	0	6	0	0	-	6	0	6	0	0	-	6	0	0	1	0	-	1	13
% Buses	0.0	0.0	0.0	-	-	0.0	0.0	0.5	0.0	-	-	0.5	0.0	0.5	0.0	-	-	0.5	0.0	0.0	0.2	-	-	0.1	0.3
Single-Unit Trucks	7	3	0	0	-	10	0	25	0	0	-	25	5	22	0	0	-	27	7	0	8	0	-	15	77
% Single-Unit Trucks	5.8	2.1	0.0	-	-	2.9	0.0	2.0	0.0	-	-	1.9	5.4	1.9	0.0	-	-	2.1	5.6	0.0	1.7	-	-	1.7	2.0
Articulated Trucks	5	0	0	0	-	5	0	21	0	0	-	21	0	22	0	0	-	22	6	0	3	0	-	9	57
% Articulated Trucks	4.1	0.0	0.0	-	-	1.5	0.0	1.7	0.0	-	-	1.6	0.0	1.9	0.0	-	-	1.7	4.8	0.0	0.6	-	-	1.0	1.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & William Halton Parkway
Site Code: 220208
Start Date: 05/25/2023



Turning Movement Peak Hour Data Plot (4:15 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Burnhamthorpe Road
Site Code: 220208
Start Date: 12/01/2022

Turning Movement Data

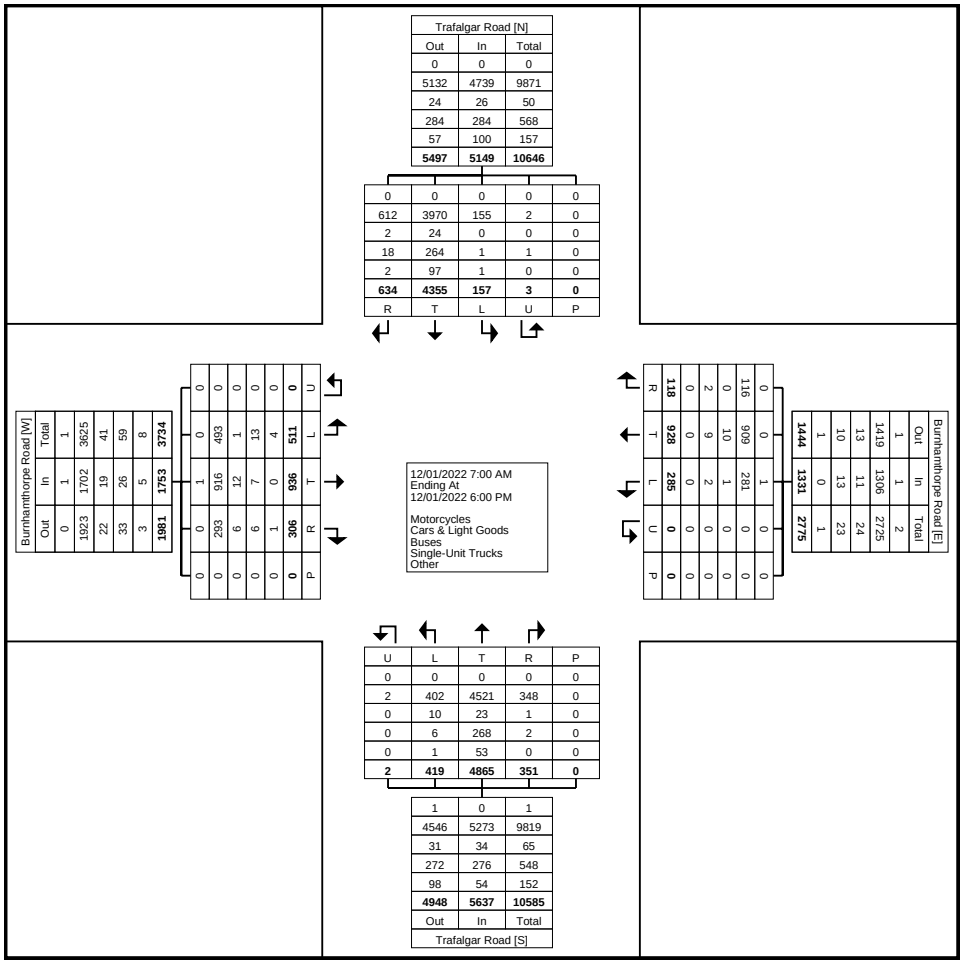
Start Time	Burnhamthorpe Road Eastbound						Burnhamthorpe Road Westbound						Trafalgar Road Northbound						Trafalgar Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	7	18	2	0	0	27	6	17	2	0	0	25	4	98	3	0	0	105	1	110	14	0	0	125	282
7:15 AM	13	12	10	0	0	35	2	9	0	0	0	11	4	131	2	0	0	137	0	142	16	0	0	158	341
7:30 AM	16	27	8	0	0	51	1	20	0	0	0	21	5	155	4	0	0	164	3	158	9	0	0	170	406
7:45 AM	28	27	13	0	0	68	10	17	2	0	0	29	5	130	12	0	0	147	3	176	19	0	0	198	442
Hourly Total	64	84	33	0	0	181	19	63	4	0	0	86	18	514	21	0	0	553	7	586	58	0	0	651	1471
8:00 AM	24	40	10	0	0	74	0	24	2	0	0	26	10	144	13	0	0	167	5	146	14	0	0	165	432
8:15 AM	30	48	16	0	0	94	9	18	0	0	0	27	13	167	8	0	0	188	6	144	23	0	0	173	482
8:30 AM	30	50	15	0	0	95	12	39	12	0	0	63	20	136	16	0	0	172	15	178	14	0	0	207	537
8:45 AM	31	44	10	0	0	85	15	33	15	0	0	63	9	146	19	0	0	174	18	139	21	0	0	178	500
Hourly Total	115	182	51	0	0	348	36	114	29	0	0	179	52	593	56	0	0	701	44	607	72	0	0	723	1951
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	18	22	6	0	0	46	3	10	1	0	0	14	3	117	3	0	0	123	1	102	7	0	0	110	293
11:15 AM	6	9	7	0	0	22	6	13	0	0	0	19	4	99	3	0	0	106	1	107	9	0	0	117	264
11:30 AM	18	21	11	0	0	50	6	17	1	0	0	24	7	93	7	0	0	107	3	124	4	0	0	131	312
11:45 AM	8	19	7	0	0	34	7	23	2	0	0	32	13	107	8	1	0	129	2	119	13	1	0	135	330
Hourly Total	50	71	31	0	0	152	22	63	4	0	0	89	27	416	21	1	0	465	7	452	33	1	0	493	1199
12:00 PM	12	21	16	0	0	49	8	12	1	0	0	21	10	106	7	1	0	124	2	115	7	0	0	124	318
12:15 PM	9	17	11	0	0	37	8	16	2	0	0	26	10	104	4	0	0	118	3	101	18	0	0	122	303
12:30 PM	15	20	8	0	0	43	6	14	3	0	0	23	13	94	10	0	0	117	6	127	15	0	0	148	331
12:45 PM	13	24	11	0	0	48	2	13	0	0	0	15	14	89	11	0	0	114	2	104	10	0	0	116	293
Hourly Total	49	82	46	0	0	177	24	55	6	0	0	85	47	393	32	1	0	473	13	447	50	0	0	510	1245
1:00 PM	16	12	7	0	0	35	9	17	0	0	0	26	6	109	4	0	0	119	4	96	13	0	0	113	293
1:15 PM	5	18	10	0	0	33	6	15	2	0	0	23	6	108	10	0	0	124	4	125	11	0	0	140	320
1:30 PM	11	18	7	0	0	36	7	25	1	0	0	33	4	122	8	0	0	134	0	114	18	0	0	132	335
1:45 PM	8	17	5	0	0	30	10	25	0	0	0	35	8	99	7	0	0	114	1	97	15	0	0	113	292
Hourly Total	40	65	29	0	0	134	32	82	3	0	0	117	24	438	29	0	0	491	9	432	57	0	0	498	1240
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	9	18	7	0	0	34	3	30	1	0	0	34	11	169	12	0	0	192	9	145	18	0	0	172	432
3:15 PM	12	38	13	0	0	63	15	38	3	0	0	56	20	194	28	0	0	242	14	146	27	0	0	187	548
3:30 PM	13	45	13	0	0	71	31	66	22	0	0	119	26	178	24	0	0	228	23	155	40	0	0	218	636
3:45 PM	20	35	11	0	0	66	17	54	13	0	0	84	25	202	10	0	0	237	4	140	28	0	0	172	559
Hourly Total	54	136	44	0	0	234	66	188	39	0	0	293	82	743	74	0	0	899	50	586	113	0	0	749	2175
4:00 PM	16	49	5	0	0	70	8	48	7	0	0	63	18	219	14	0	0	251	3	149	29	0	0	181	565
4:15 PM	16	37	10	0	0	63	5	45	2	0	0	52	17	245	19	0	0	281	3	155	25	0	0	183	579
4:30 PM	20	26	13	0	0	59	11	49	5	0	0	65	15	221	15	0	0	251	3	139	29	0	0	171	546

4:45 PM	20	51	10	0	0	81	9	42	1	0	0	52	22	231	11	0	0	264	6	141	37	0	0	184	581
Hourly Total	72	163	38	0	0	273	33	184	15	0	0	232	72	916	59	0	0	1047	15	584	120	0	0	719	2271
5:00 PM	20	41	11	0	0	72	18	44	9	0	0	71	21	225	13	0	0	259	4	177	40	1	0	222	624
5:15 PM	19	38	7	0	0	64	9	51	2	0	0	62	28	215	17	0	0	260	3	171	36	0	0	210	596
5:30 PM	17	30	6	0	0	53	15	42	3	0	0	60	23	230	15	0	0	268	2	144	24	0	0	170	551
5:45 PM	11	44	10	0	0	65	11	42	4	0	0	57	25	182	14	0	0	221	3	169	31	1	0	204	547
Hourly Total	67	153	34	0	0	254	53	179	18	0	0	250	97	852	59	0	0	1008	12	661	131	2	0	806	2318
Grand Total	511	936	306	0	0	1753	285	928	118	0	0	1331	419	4865	351	2	0	5637	157	4355	634	3	0	5149	13870
Approach %	29.2	53.4	17.5	0.0	-	-	21.4	69.7	8.9	0.0	-	-	7.4	86.3	6.2	0.0	-	-	3.0	84.6	12.3	0.1	-	-	-
Total %	3.7	6.7	2.2	0.0	-	12.6	2.1	6.7	0.9	0.0	-	9.6	3.0	35.1	2.5	0.0	-	40.6	1.1	31.4	4.6	0.0	-	37.1	-
Motorcycles	0	1	0	0	-	1	1	0	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Motorcycles	0.0	0.1	0.0	-	-	0.1	0.4	0.0	0.0	-	-	0.1	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Cars & Light Goods	493	916	293	0	-	1702	281	909	116	0	-	1306	402	4521	348	2	-	5273	155	3970	612	2	-	4739	13020
% Cars & Light Goods	96.5	97.9	95.8	-	-	97.1	98.6	98.0	98.3	-	-	98.1	95.9	92.9	99.1	100.0	-	93.5	98.7	91.2	96.5	66.7	-	92.0	93.9
Buses	1	12	6	0	-	19	1	10	0	0	-	11	10	23	1	0	-	34	0	24	2	0	-	26	90
% Buses	0.2	1.3	2.0	-	-	1.1	0.4	1.1	0.0	-	-	0.8	2.4	0.5	0.3	0.0	-	0.6	0.0	0.6	0.3	0.0	-	0.5	0.6
Single-Unit Trucks	13	7	6	0	-	26	2	9	2	0	-	13	6	268	2	0	-	276	1	264	18	1	-	284	599
% Single-Unit Trucks	2.5	0.7	2.0	-	-	1.5	0.7	1.0	1.7	-	-	1.0	1.4	5.5	0.6	0.0	-	4.9	0.6	6.1	2.8	33.3	-	5.5	4.3
Articulated Trucks	4	0	1	0	-	5	0	0	0	0	-	0	1	53	0	0	-	54	1	96	2	0	-	99	158
% Articulated Trucks	0.8	0.0	0.3	-	-	0.3	0.0	0.0	0.0	-	-	0.0	0.2	1.1	0.0	0.0	-	1.0	0.6	2.2	0.3	0.0	-	1.9	1.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	1
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Burnhamthorpe Road
Site Code: 220208
Start Date: 12/01/2022



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Burnhamthorpe Road
Site Code: 220208
Start Date: 12/01/2022

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Burnhamthorpe Road Eastbound						Burnhamthorpe Road Westbound						Trafalgar Road Northbound						Trafalgar Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
8:00 AM	24	40	10	0	0	74	0	24	2	0	0	26	10	144	13	0	0	167	5	146	14	0	0	165	432
8:15 AM	30	48	16	0	0	94	9	18	0	0	0	27	13	167	8	0	0	188	6	144	23	0	0	173	482
8:30 AM	30	50	15	0	0	95	12	39	12	0	0	63	20	136	16	0	0	172	15	178	14	0	0	207	537
8:45 AM	31	44	10	0	0	85	15	33	15	0	0	63	9	146	19	0	0	174	18	139	21	0	0	178	500
Total	115	182	51	0	0	348	36	114	29	0	0	179	52	593	56	0	0	701	44	607	72	0	0	723	1951
Approach %	33.0	52.3	14.7	0.0	-	-	20.1	63.7	16.2	0.0	-	-	7.4	84.6	8.0	0.0	-	-	6.1	84.0	10.0	0.0	-	-	-
Total %	5.9	9.3	2.6	0.0	-	17.8	1.8	5.8	1.5	0.0	-	9.2	2.7	30.4	2.9	0.0	-	35.9	2.3	31.1	3.7	0.0	-	37.1	-
PHF	0.927	0.910	0.797	0.000	-	0.916	0.600	0.731	0.483	0.000	-	0.710	0.650	0.888	0.737	0.000	-	0.932	0.611	0.853	0.783	0.000	-	0.873	0.908
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	111	179	48	0	-	338	36	109	29	0	-	174	51	548	56	0	-	655	44	558	70	0	-	672	1839
% Cars & Light Goods	96.5	98.4	94.1	-	-	97.1	100.0	95.6	100.0	-	-	97.2	98.1	92.4	100.0	-	-	93.4	100.0	91.9	97.2	-	-	92.9	94.3
Buses	0	1	1	0	-	2	0	3	0	0	-	3	1	3	0	0	-	4	0	4	0	0	-	4	13
% Buses	0.0	0.5	2.0	-	-	0.6	0.0	2.6	0.0	-	-	1.7	1.9	0.5	0.0	-	-	0.6	0.0	0.7	0.0	-	-	0.6	0.7
Single-Unit Trucks	1	2	2	0	-	5	0	2	0	0	-	2	0	34	0	0	-	34	0	36	2	0	-	38	79
% Single-Unit Trucks	0.9	1.1	3.9	-	-	1.4	0.0	1.8	0.0	-	-	1.1	0.0	5.7	0.0	-	-	4.9	0.0	5.9	2.8	-	-	5.3	4.0
Articulated Trucks	3	0	0	0	-	3	0	0	0	0	-	0	0	8	0	0	-	8	0	9	0	0	-	9	20
% Articulated Trucks	2.6	0.0	0.0	-	-	0.9	0.0	0.0	0.0	-	-	0.0	0.0	1.3	0.0	-	-	1.1	0.0	1.5	0.0	-	-	1.2	1.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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Count Name: Trafalgar Road & Burnhamthorpe Road
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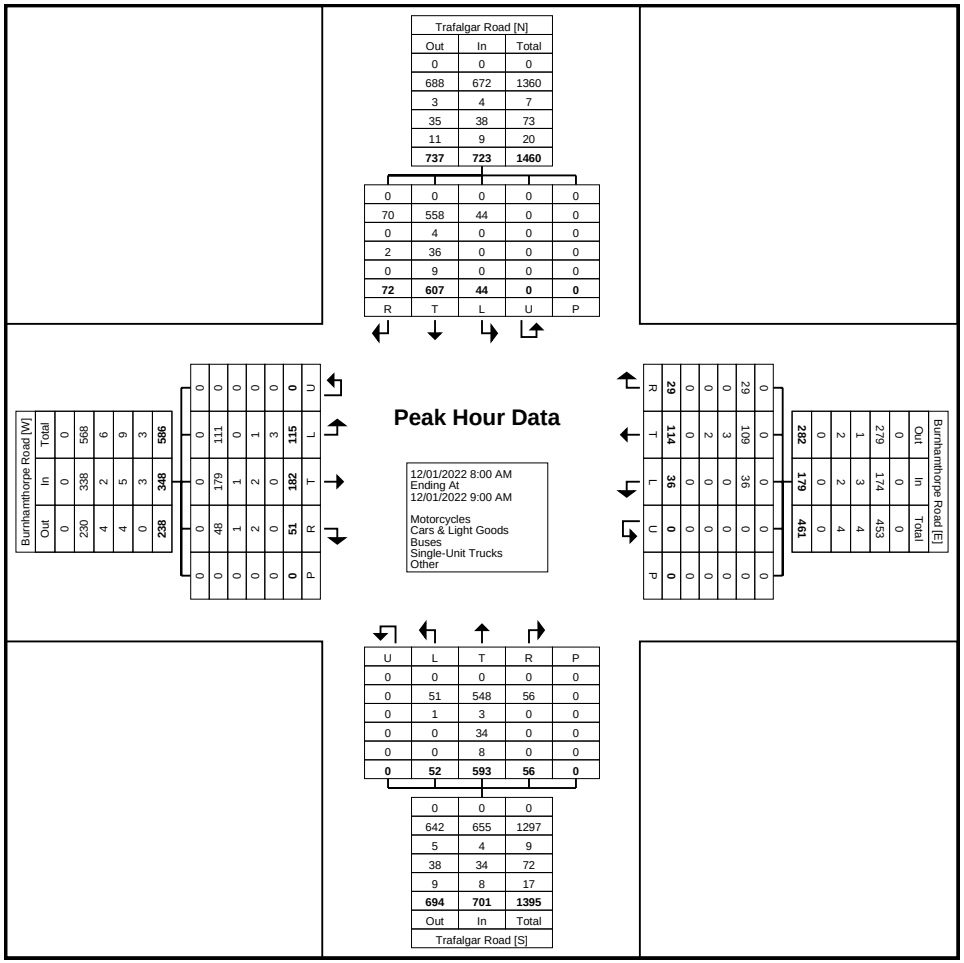
Start Date: 12/01/2022



Turning Movement Peak Hour Data Plot (8:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Burnhamthorpe Road
Site Code: 220208
Start Date: 12/01/2022

Turning Movement Peak Hour Data (11:45 AM)

Start Time	Burnhamthorpe Road Eastbound						Burnhamthorpe Road Westbound						Trafalgar Road Northbound						Trafalgar Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
11:45 AM	8	19	7	0	0	34	7	23	2	0	0	32	13	107	8	1	0	129	2	119	13	1	0	135	330
12:00 PM	12	21	16	0	0	49	8	12	1	0	0	21	10	106	7	1	0	124	2	115	7	0	0	124	318
12:15 PM	9	17	11	0	0	37	8	16	2	0	0	26	10	104	4	0	0	118	3	101	18	0	0	122	303
12:30 PM	15	20	8	0	0	43	6	14	3	0	0	23	13	94	10	0	0	117	6	127	15	0	0	148	331
Total	44	77	42	0	0	163	29	65	8	0	0	102	46	411	29	2	0	488	13	462	53	1	0	529	1282
Approach %	27.0	47.2	25.8	0.0	-	-	28.4	63.7	7.8	0.0	-	-	9.4	84.2	5.9	0.4	-	-	2.5	87.3	10.0	0.2	-	-	-
Total %	3.4	6.0	3.3	0.0	-	12.7	2.3	5.1	0.6	0.0	-	8.0	3.6	32.1	2.3	0.2	-	38.1	1.0	36.0	4.1	0.1	-	41.3	-
PHF	0.733	0.917	0.656	0.000	-	0.832	0.906	0.707	0.667	0.000	-	0.797	0.885	0.960	0.725	0.500	-	0.946	0.542	0.909	0.736	0.250	-	0.894	0.968
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Cars & Light Goods	43	74	42	0	-	159	29	61	8	0	-	98	46	352	29	2	-	429	13	382	46	0	-	441	1127
% Cars & Light Goods	97.7	96.1	100.0	-	-	97.5	100.0	93.8	100.0	-	-	96.1	100.0	85.6	100.0	100.0	-	87.9	100.0	82.7	86.8	0.0	-	83.4	87.9
Buses	1	2	0	0	-	3	0	4	0	0	-	4	0	3	0	0	-	3	0	2	0	0	-	2	12
% Buses	2.3	2.6	0.0	-	-	1.8	0.0	6.2	0.0	-	-	3.9	0.0	0.7	0.0	0.0	-	0.6	0.0	0.4	0.0	0.0	-	0.4	0.9
Single-Unit Trucks	0	1	0	0	-	1	0	0	0	0	-	0	0	47	0	0	-	47	0	68	6	1	-	75	123
% Single-Unit Trucks	0.0	1.3	0.0	-	-	0.6	0.0	0.0	0.0	-	-	0.0	0.0	11.4	0.0	0.0	-	9.6	0.0	14.7	11.3	100.0	-	14.2	9.6
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	9	0	0	-	9	0	10	1	0	-	11	20
% Articulated Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	2.2	0.0	0.0	-	1.8	0.0	2.2	1.9	0.0	-	2.1	1.6
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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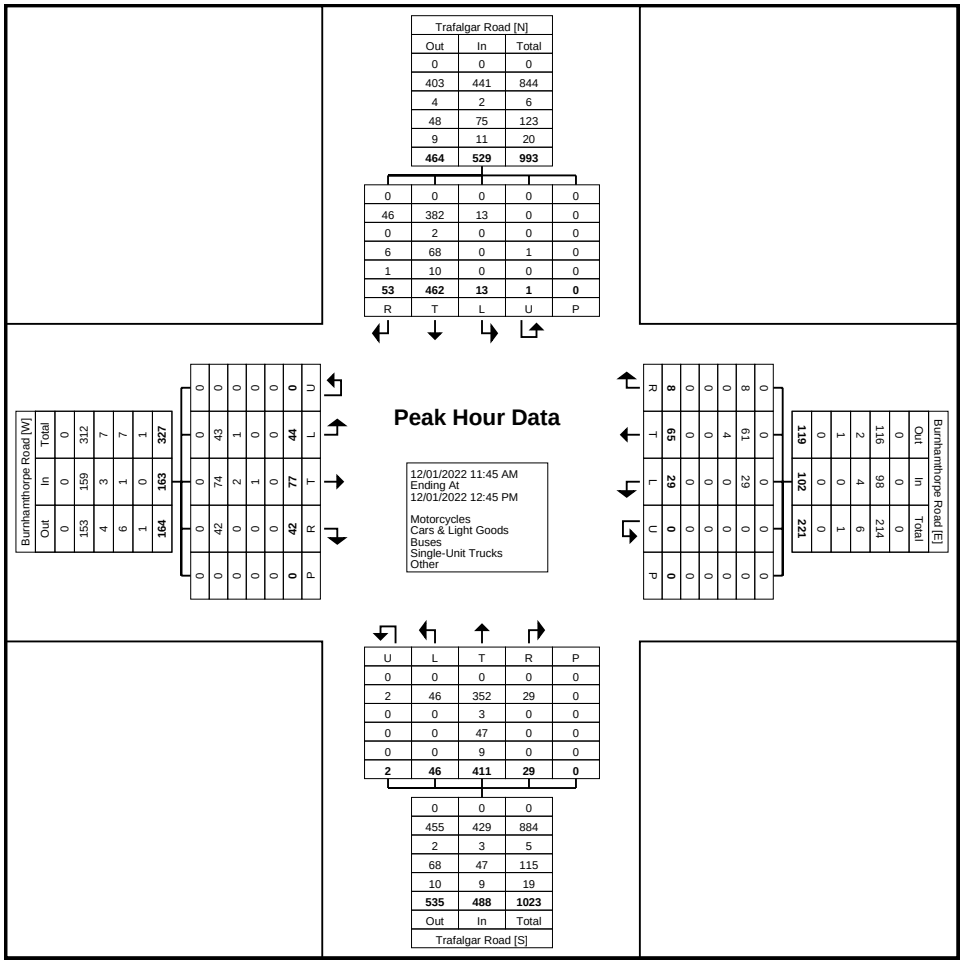


Turning Movement Peak Hour Data Plot (11:45 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Burnhamthorpe Road
Site Code: 220208
Start Date: 12/01/2022

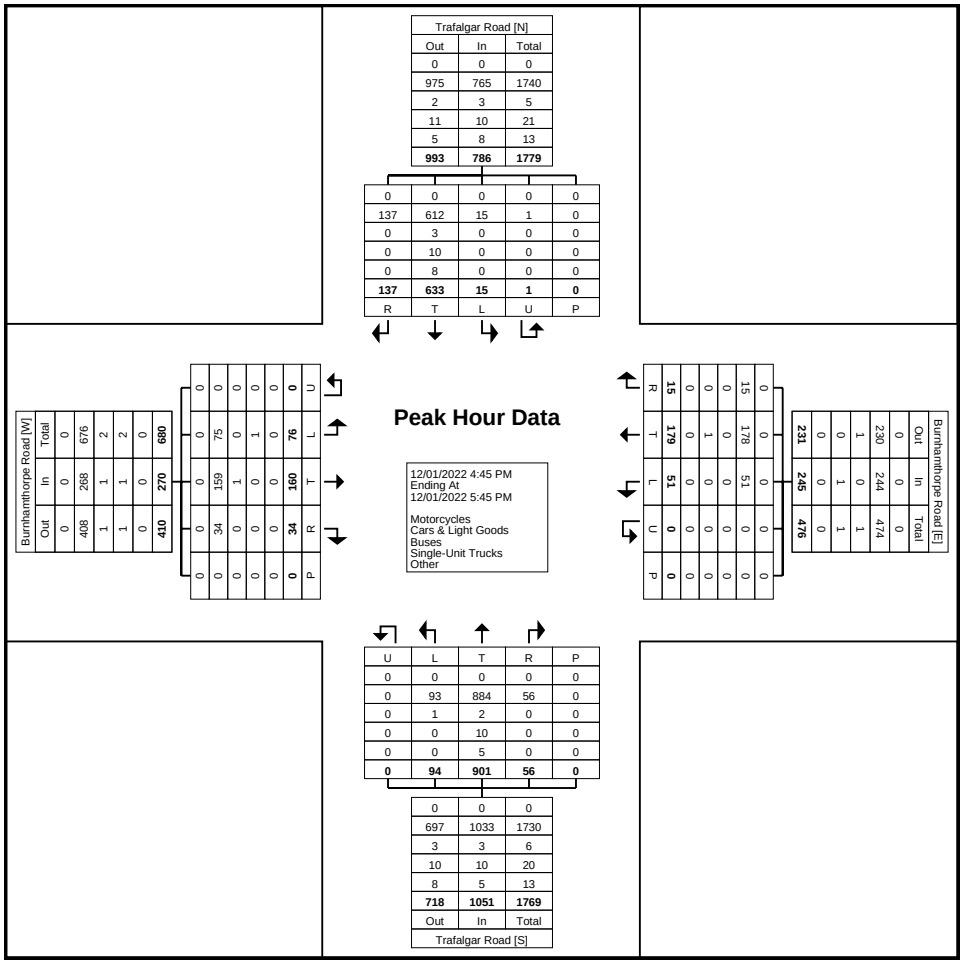
Turning Movement Peak Hour Data (4:45 PM)

Start Time	Burnhamthorpe Road Eastbound						Burnhamthorpe Road Westbound						Trafalgar Road Northbound						Trafalgar Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
4:45 PM	20	51	10	0	0	81	9	42	1	0	0	52	22	231	11	0	0	264	6	141	37	0	0	184	581
5:00 PM	20	41	11	0	0	72	18	44	9	0	0	71	21	225	13	0	0	259	4	177	40	1	0	222	624
5:15 PM	19	38	7	0	0	64	9	51	2	0	0	62	28	215	17	0	0	260	3	171	36	0	0	210	596
5:30 PM	17	30	6	0	0	53	15	42	3	0	0	60	23	230	15	0	0	268	2	144	24	0	0	170	551
Total	76	160	34	0	0	270	51	179	15	0	0	245	94	901	56	0	0	1051	15	633	137	1	0	786	2352
Approach %	28.1	59.3	12.6	0.0	-	-	20.8	73.1	6.1	0.0	-	-	8.9	85.7	5.3	0.0	-	-	1.9	80.5	17.4	0.1	-	-	-
Total %	3.2	6.8	1.4	0.0	-	11.5	2.2	7.6	0.6	0.0	-	10.4	4.0	38.3	2.4	0.0	-	44.7	0.6	26.9	5.8	0.0	-	33.4	-
PHF	0.950	0.784	0.773	0.000	-	0.833	0.708	0.877	0.417	0.000	-	0.863	0.839	0.975	0.824	0.000	-	0.980	0.625	0.894	0.856	0.250	-	0.885	0.942
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Cars & Light Goods	75	159	34	0	-	268	51	178	15	0	-	244	93	884	56	0	-	1033	15	612	137	1	-	765	2310
% Cars & Light Goods	98.7	99.4	100.0	-	-	99.3	100.0	99.4	100.0	-	-	99.6	98.9	98.1	100.0	-	-	98.3	100.0	96.7	100.0	100.0	-	97.3	98.2
Buses	0	1	0	0	-	1	0	0	0	0	-	0	1	2	0	0	-	3	0	3	0	0	-	3	7
% Buses	0.0	0.6	0.0	-	-	0.4	0.0	0.0	0.0	-	-	0.0	1.1	0.2	0.0	-	-	0.3	0.0	0.5	0.0	0.0	-	0.4	0.3
Single-Unit Trucks	1	0	0	0	-	1	0	1	0	0	-	1	0	10	0	0	-	10	0	10	0	0	-	10	22
% Single-Unit Trucks	1.3	0.0	0.0	-	-	0.4	0.0	0.6	0.0	-	-	0.4	0.0	1.1	0.0	-	-	1.0	0.0	1.6	0.0	0.0	-	1.3	0.9
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	5	0	0	-	5	0	8	0	0	-	8	13
% Articulated Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.6	0.0	-	-	0.5	0.0	1.3	0.0	0.0	-	1.0	0.6
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Burnhamthorpe Road
Site Code: 220208
Start Date: 12/01/2022



Turning Movement Peak Hour Data Plot (4:45 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Threshing Mill Blvd
Site Code: 220208
Start Date: 12/01/2022

Turning Movement Data

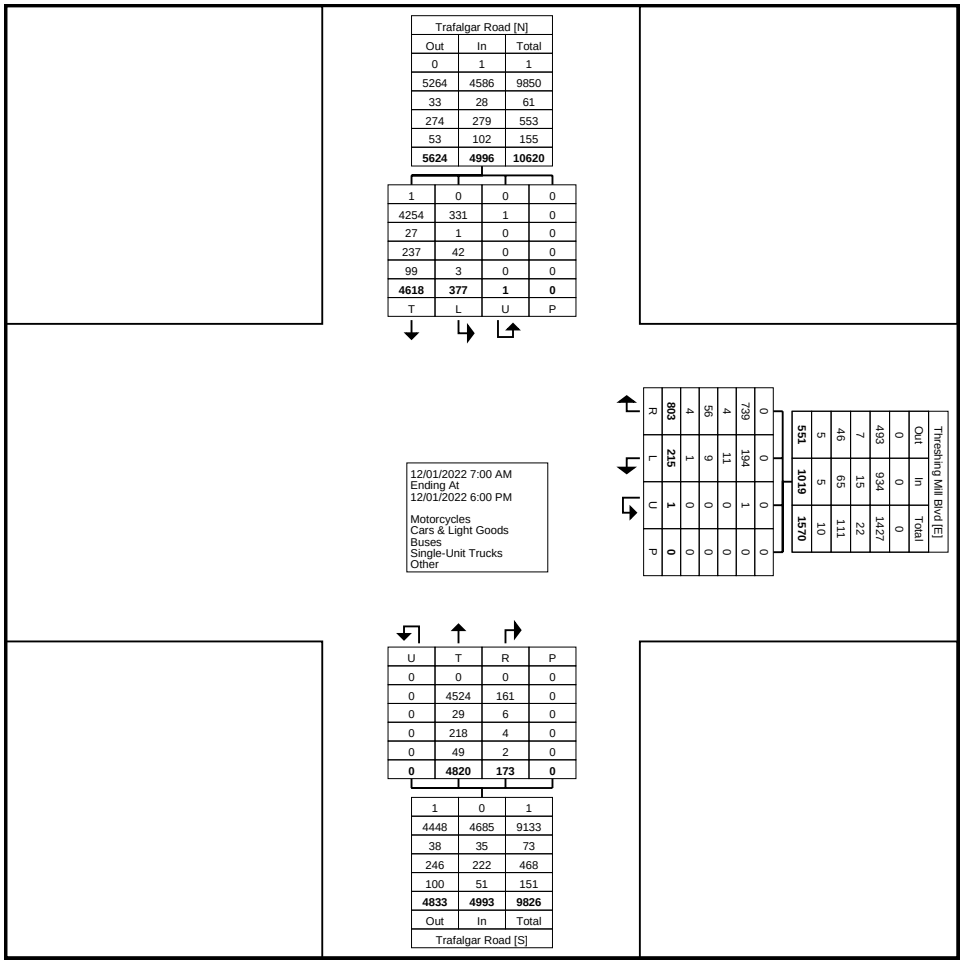
Start Time	Threshing Mill Blvd Westbound					Trafalgar Road Northbound					Trafalgar Road Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	
7:00 AM	1	14	0	0	15	94	9	0	0	103	14	106	0	0	120	238
7:15 AM	6	18	0	0	24	118	4	0	0	122	13	134	0	0	147	293
7:30 AM	3	16	0	0	19	148	6	0	0	154	10	169	0	0	179	352
7:45 AM	3	22	0	0	25	131	7	0	0	138	18	155	0	0	173	336
Hourly Total	13	70	0	0	83	491	26	0	0	517	55	564	0	0	619	1219
8:00 AM	5	14	0	0	19	140	5	0	0	145	23	156	0	0	179	343
8:15 AM	7	28	0	0	35	162	3	0	0	165	26	147	0	0	173	373
8:30 AM	3	29	0	0	32	132	6	0	0	138	20	186	0	0	206	376
8:45 AM	3	18	0	0	21	153	6	0	0	159	20	157	0	0	177	357
Hourly Total	18	89	0	0	107	587	20	0	0	607	89	646	0	0	735	1449
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	7	10	0	0	17	110	0	0	0	110	6	110	0	0	116	243
11:15 AM	5	7	0	0	12	104	4	0	0	108	6	111	0	0	117	237
11:30 AM	5	8	0	0	13	93	4	0	0	97	7	136	0	0	143	253
11:45 AM	11	12	0	0	23	127	8	0	0	135	3	131	0	0	134	292
Hourly Total	28	37	0	0	65	434	16	0	0	450	22	488	0	0	510	1025
12:00 PM	11	7	0	0	18	114	6	0	0	120	6	128	0	0	134	272
12:15 PM	7	10	0	0	17	112	7	0	0	119	5	118	0	0	123	259
12:30 PM	8	16	0	0	24	91	10	0	0	101	7	134	0	0	141	266
12:45 PM	6	11	0	0	17	115	5	0	0	120	8	110	0	0	118	255
Hourly Total	32	44	0	0	76	432	28	0	0	460	26	490	0	0	516	1052
1:00 PM	5	9	0	0	14	98	5	0	0	103	2	113	0	0	115	232
1:15 PM	8	17	0	0	25	105	2	0	0	107	9	131	1	0	141	273
1:30 PM	4	11	0	0	15	123	4	0	0	127	6	122	0	0	128	270
1:45 PM	3	11	0	0	14	107	5	0	0	112	6	112	0	0	118	244
Hourly Total	20	48	0	0	68	433	16	0	0	449	23	478	1	0	502	1019
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	5	22	0	0	27	157	5	0	0	162	7	160	0	0	167	356
3:15 PM	18	49	0	0	67	199	7	0	0	206	20	156	0	0	176	449
3:30 PM	15	37	0	0	52	186	4	0	0	190	17	179	0	0	196	438
3:45 PM	13	53	0	0	66	184	10	0	0	194	20	154	0	0	174	434
Hourly Total	51	161	0	0	212	726	26	0	0	752	64	649	0	0	713	1677
4:00 PM	10	55	0	0	65	210	9	0	0	219	15	146	0	0	161	445
4:15 PM	13	57	0	0	70	213	5	0	0	218	10	159	0	0	169	457
4:30 PM	9	47	0	0	56	213	4	0	0	217	14	154	0	0	168	441
4:45 PM	7	47	0	0	54	215	9	0	0	224	9	149	0	0	158	436

Hourly Total	39	206	0	0	245	851	27	0	0	878	48	608	0	0	656	1779
5:00 PM	4	43	0	0	47	228	4	0	0	232	16	187	0	0	203	482
5:15 PM	2	42	1	0	45	218	6	0	0	224	6	185	0	0	191	460
5:30 PM	3	40	0	0	43	225	2	0	0	227	8	163	0	0	171	441
5:45 PM	5	23	0	0	28	195	2	0	0	197	20	160	0	0	180	405
Hourly Total	14	148	1	0	163	866	14	0	0	880	50	695	0	0	745	1788
Grand Total	215	803	1	0	1019	4820	173	0	0	4993	377	4618	1	0	4996	11008
Approach %	21.1	78.8	0.1	-	-	96.5	3.5	0.0	-	-	7.5	92.4	0.0	-	-	-
Total %	2.0	7.3	0.0	-	9.3	43.8	1.6	0.0	-	45.4	3.4	42.0	0.0	-	45.4	-
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	1	0	-	1	1
% Motorcycles	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Cars & Light Goods	194	739	1	-	934	4524	161	0	-	4685	331	4254	1	-	4586	10205
% Cars & Light Goods	90.2	92.0	100.0	-	91.7	93.9	93.1	-	-	93.8	87.8	92.1	100.0	-	91.8	92.7
Buses	11	4	0	-	15	29	6	0	-	35	1	27	0	-	28	78
% Buses	5.1	0.5	0.0	-	1.5	0.6	3.5	-	-	0.7	0.3	0.6	0.0	-	0.6	0.7
Single-Unit Trucks	9	56	0	-	65	218	4	0	-	222	42	237	0	-	279	566
% Single-Unit Trucks	4.2	7.0	0.0	-	6.4	4.5	2.3	-	-	4.4	11.1	5.1	0.0	-	5.6	5.1
Articulated Trucks	1	4	0	-	5	49	2	0	-	51	3	98	0	-	101	157
% Articulated Trucks	0.5	0.5	0.0	-	0.5	1.0	1.2	-	-	1.0	0.8	2.1	0.0	-	2.0	1.4
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	1	0	-	1	1
% Bicycles on Road	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Threshing Mill Blvd
Site Code: 220208
Start Date: 12/01/2022



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Threshing Mill Blvd
Site Code: 220208
Start Date: 12/01/2022

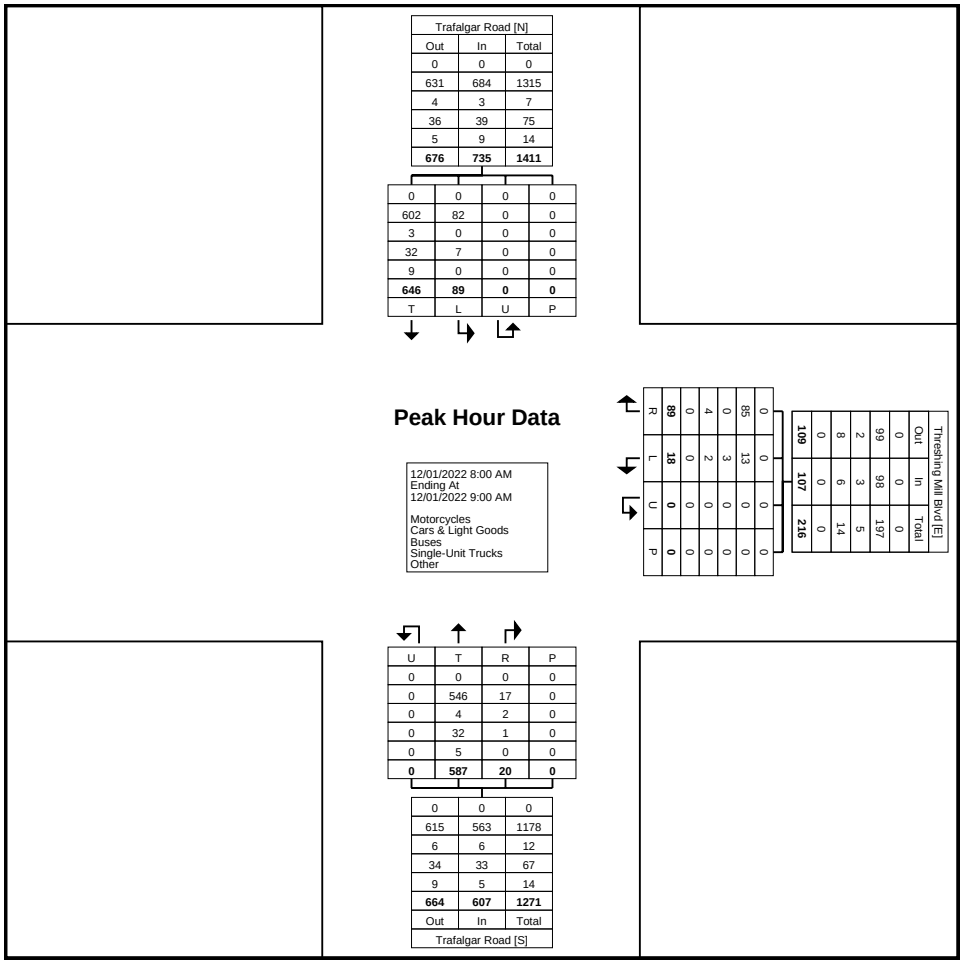
Turning Movement Peak Hour Data (8:00 AM)

Start Time	Threshing Mill Blvd Westbound					Trafalgar Road Northbound					Trafalgar Road Southbound					
	Left	Right	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Int. Total
8:00 AM	5	14	0	0	19	140	5	0	0	145	23	156	0	0	179	343
8:15 AM	7	28	0	0	35	162	3	0	0	165	26	147	0	0	173	373
8:30 AM	3	29	0	0	32	132	6	0	0	138	20	186	0	0	206	376
8:45 AM	3	18	0	0	21	153	6	0	0	159	20	157	0	0	177	357
Total	18	89	0	0	107	587	20	0	0	607	89	646	0	0	735	1449
Approach %	16.8	83.2	0.0	-	-	96.7	3.3	0.0	-	-	12.1	87.9	0.0	-	-	-
Total %	1.2	6.1	0.0	-	7.4	40.5	1.4	0.0	-	41.9	6.1	44.6	0.0	-	50.7	-
PHF	0.643	0.767	0.000	-	0.764	0.906	0.833	0.000	-	0.920	0.856	0.868	0.000	-	0.892	0.963
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	13	85	0	-	98	546	17	0	-	563	82	602	0	-	684	1345
% Cars & Light Goods	72.2	95.5	-	-	91.6	93.0	85.0	-	-	92.8	92.1	93.2	-	-	93.1	92.8
Buses	3	0	0	-	3	4	2	0	-	6	0	3	0	-	3	12
% Buses	16.7	0.0	-	-	2.8	0.7	10.0	-	-	1.0	0.0	0.5	-	-	0.4	0.8
Single-Unit Trucks	2	4	0	-	6	32	1	0	-	33	7	32	0	-	39	78
% Single-Unit Trucks	11.1	4.5	-	-	5.6	5.5	5.0	-	-	5.4	7.9	5.0	-	-	5.3	5.4
Articulated Trucks	0	0	0	-	0	5	0	0	-	5	0	9	0	-	9	14
% Articulated Trucks	0.0	0.0	-	-	0.0	0.9	0.0	-	-	0.8	0.0	1.4	-	-	1.2	1.0
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Threshing Mill Blvd
Site Code: 220208
Start Date: 12/01/2022



Turning Movement Peak Hour Data Plot (8:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Threshing Mill Blvd
Site Code: 220208
Start Date: 12/01/2022

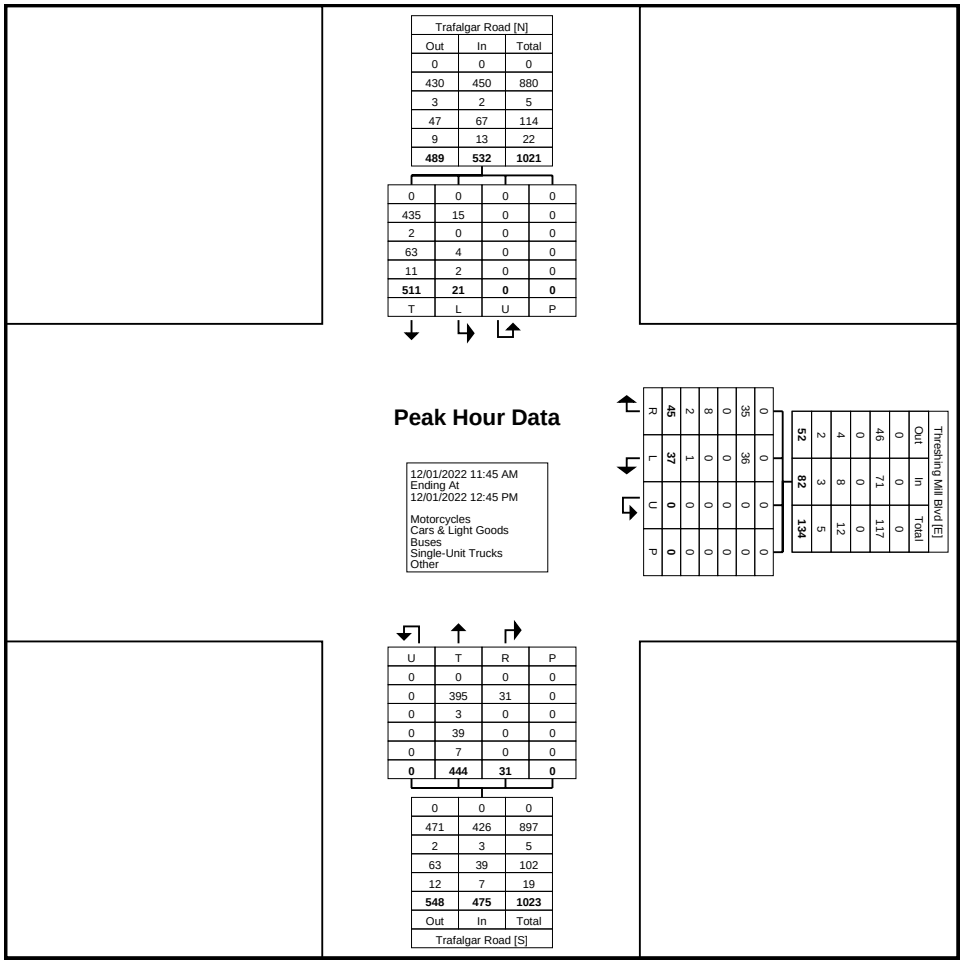
Turning Movement Peak Hour Data (11:45 AM)

Start Time	Threshing Mill Blvd Westbound					Trafalgar Road Northbound					Trafalgar Road Southbound					
	Left	Right	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Int. Total
11:45 AM	11	12	0	0	23	127	8	0	0	135	3	131	0	0	134	292
12:00 PM	11	7	0	0	18	114	6	0	0	120	6	128	0	0	134	272
12:15 PM	7	10	0	0	17	112	7	0	0	119	5	118	0	0	123	259
12:30 PM	8	16	0	0	24	91	10	0	0	101	7	134	0	0	141	266
Total	37	45	0	0	82	444	31	0	0	475	21	511	0	0	532	1089
Approach %	45.1	54.9	0.0	-	-	93.5	6.5	0.0	-	-	3.9	96.1	0.0	-	-	-
Total %	3.4	4.1	0.0	-	7.5	40.8	2.8	0.0	-	43.6	1.9	46.9	0.0	-	48.9	-
PHF	0.841	0.703	0.000	-	0.854	0.874	0.775	0.000	-	0.880	0.750	0.953	0.000	-	0.943	0.932
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	36	35	0	-	71	395	31	0	-	426	15	435	0	-	450	947
% Cars & Light Goods	97.3	77.8	-	-	86.6	89.0	100.0	-	-	89.7	71.4	85.1	-	-	84.6	87.0
Buses	0	0	0	-	0	3	0	0	-	3	0	2	0	-	2	5
% Buses	0.0	0.0	-	-	0.0	0.7	0.0	-	-	0.6	0.0	0.4	-	-	0.4	0.5
Single-Unit Trucks	0	8	0	-	8	39	0	0	-	39	4	63	0	-	67	114
% Single-Unit Trucks	0.0	17.8	-	-	9.8	8.8	0.0	-	-	8.2	19.0	12.3	-	-	12.6	10.5
Articulated Trucks	1	2	0	-	3	7	0	0	-	7	2	11	0	-	13	23
% Articulated Trucks	2.7	4.4	-	-	3.7	1.6	0.0	-	-	1.5	9.5	2.2	-	-	2.4	2.1
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Threshing Mill Blvd
Site Code: 220208
Start Date: 12/01/2022



Turning Movement Peak Hour Data Plot (11:45 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Threshing Mill Blvd
Site Code: 220208
Start Date: 12/01/2022

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Threshing Mill Blvd Westbound					Trafalgar Road Northbound					Trafalgar Road Southbound					
	Left	Right	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Int. Total
4:30 PM	9	47	0	0	56	213	4	0	0	217	14	154	0	0	168	441
4:45 PM	7	47	0	0	54	215	9	0	0	224	9	149	0	0	158	436
5:00 PM	4	43	0	0	47	228	4	0	0	232	16	187	0	0	203	482
5:15 PM	2	42	1	0	45	218	6	0	0	224	6	185	0	0	191	460
Total	22	179	1	0	202	874	23	0	0	897	45	675	0	0	720	1819
Approach %	10.9	88.6	0.5	-	-	97.4	2.6	0.0	-	-	6.3	93.8	0.0	-	-	-
Total %	1.2	9.8	0.1	-	11.1	48.0	1.3	0.0	-	49.3	2.5	37.1	0.0	-	39.6	-
PHF	0.611	0.952	0.250	-	0.902	0.958	0.639	0.000	-	0.967	0.703	0.902	0.000	-	0.887	0.943
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	21	174	1	-	196	859	23	0	-	882	42	658	0	-	700	1778
% Cars & Light Goods	95.5	97.2	100.0	-	97.0	98.3	100.0	-	-	98.3	93.3	97.5	-	-	97.2	97.7
Buses	1	0	0	-	1	1	0	0	-	1	0	4	0	-	4	6
% Buses	4.5	0.0	0.0	-	0.5	0.1	0.0	-	-	0.1	0.0	0.6	-	-	0.6	0.3
Single-Unit Trucks	0	4	0	-	4	8	0	0	-	8	3	5	0	-	8	20
% Single-Unit Trucks	0.0	2.2	0.0	-	2.0	0.9	0.0	-	-	0.9	6.7	0.7	-	-	1.1	1.1
Articulated Trucks	0	1	0	-	1	6	0	0	-	6	0	8	0	-	8	15
% Articulated Trucks	0.0	0.6	0.0	-	0.5	0.7	0.0	-	-	0.7	0.0	1.2	-	-	1.1	0.8
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

Cambridge, Ontario, Canada N1R 8J8
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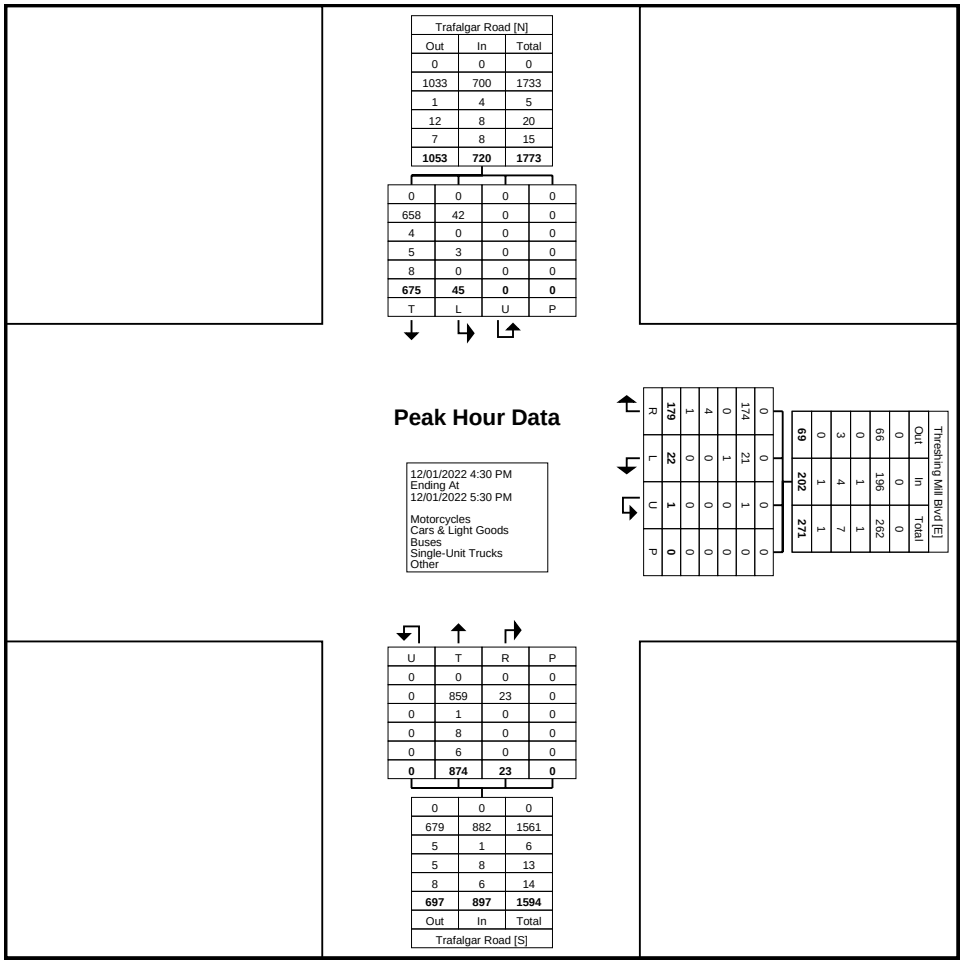
Count Name: Trafalgar Road & Threshing Mill Blvd
Site Code: 220208
Start Date: 12/01/2022



Turning Movement Peak Hour Data Plot (4:30 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Wheat Boom Drive
Site Code: 220208
Start Date: 12/01/2022

Turning Movement Data

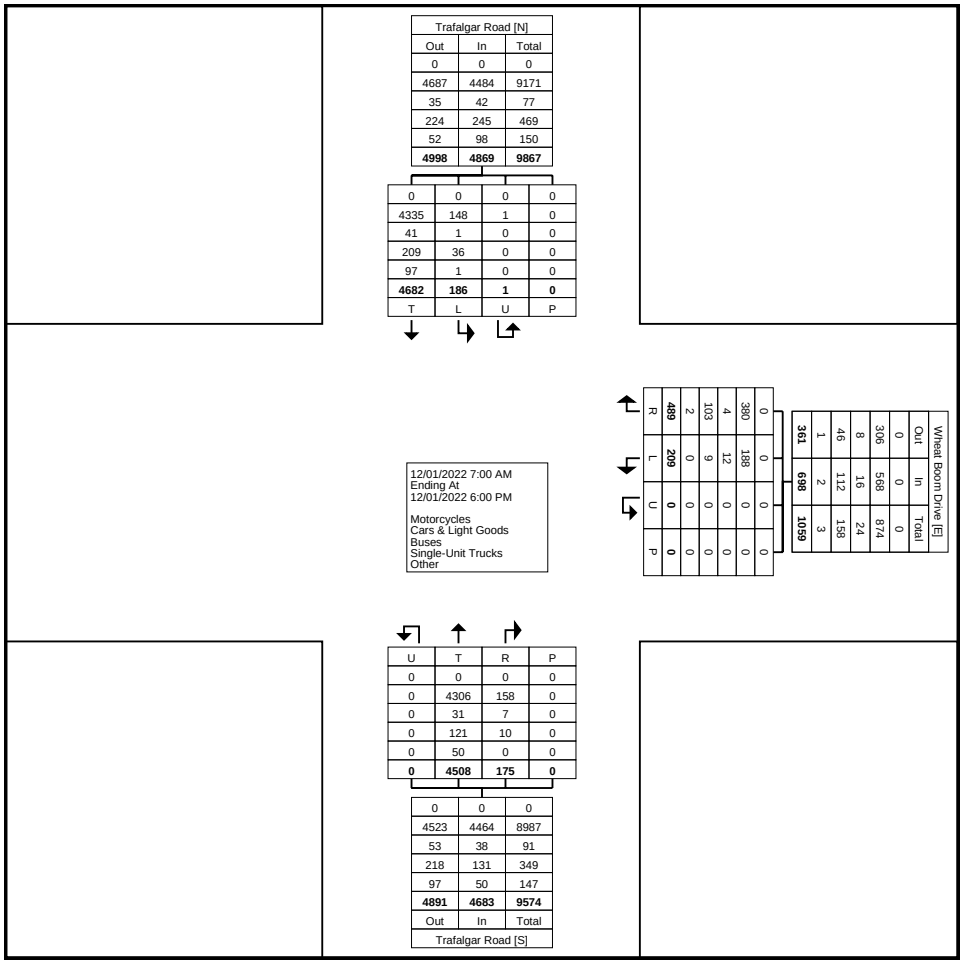
Start Time	Wheat Boom Drive Westbound					Trafalgar Road Northbound					Trafalgar Road Southbound					Int. Total
	Left	Right	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	
7:00 AM	2	7	0	0	9	98	5	0	0	103	5	104	0	0	109	221
7:15 AM	2	17	0	0	19	110	0	0	0	110	3	141	0	0	144	273
7:30 AM	6	17	0	0	23	138	5	0	0	143	4	158	0	0	162	328
7:45 AM	1	11	0	0	12	127	4	0	0	131	8	161	0	0	169	312
Hourly Total	11	52	0	0	63	473	14	0	0	487	20	564	0	0	584	1134
8:00 AM	2	15	0	0	17	131	2	0	0	133	4	143	0	0	147	297
8:15 AM	4	13	0	0	17	158	7	0	0	165	4	161	0	0	165	347
8:30 AM	4	12	0	0	16	121	2	0	0	123	9	171	0	0	180	319
8:45 AM	4	15	0	0	19	140	5	0	0	145	14	155	0	0	169	333
Hourly Total	14	55	0	0	69	550	16	0	0	566	31	630	0	0	661	1296
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	2	11	0	0	13	99	1	0	0	100	4	114	0	0	118	231
11:15 AM	4	13	0	0	17	95	10	0	0	105	1	116	0	0	117	239
11:30 AM	6	9	0	0	15	90	5	0	0	95	0	133	0	0	133	243
11:45 AM	3	14	0	0	17	119	2	0	0	121	2	146	0	0	148	286
Hourly Total	15	47	0	0	62	403	18	0	0	421	7	509	0	0	516	999
12:00 PM	4	10	0	0	14	111	5	0	0	116	2	145	0	0	147	277
12:15 PM	6	10	0	0	16	110	5	0	0	115	0	129	0	0	129	260
12:30 PM	4	8	0	0	12	98	4	0	0	102	4	143	0	0	147	261
12:45 PM	3	11	0	0	14	103	5	0	0	108	11	108	0	0	119	241
Hourly Total	17	39	0	0	56	422	19	0	0	441	17	525	0	0	542	1039
1:00 PM	1	10	0	0	11	98	5	0	0	103	7	113	0	0	120	234
1:15 PM	2	6	0	0	8	98	5	0	0	103	17	120	0	0	137	248
1:30 PM	7	14	0	0	21	118	8	0	0	126	14	112	0	0	126	273
1:45 PM	6	7	0	0	13	105	7	0	0	112	3	104	0	0	107	232
Hourly Total	16	37	0	0	53	419	25	0	0	444	41	449	0	0	490	987
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	8	15	0	0	23	156	5	0	0	161	3	160	0	0	163	347
3:15 PM	17	19	0	0	36	198	3	0	0	201	3	174	0	0	177	414
3:30 PM	17	38	0	0	55	153	10	0	0	163	5	172	0	0	177	395
3:45 PM	11	21	0	0	32	178	4	0	0	182	12	172	0	0	184	398
Hourly Total	53	93	0	0	146	685	22	0	0	707	23	678	0	0	701	1554
4:00 PM	14	25	0	0	39	189	7	0	0	196	7	146	0	0	153	388
4:15 PM	8	27	0	0	35	185	6	0	0	191	4	175	0	0	179	405
4:30 PM	13	14	0	0	27	201	6	0	0	207	6	142	0	0	148	382
4:45 PM	13	27	0	0	40	198	3	0	0	201	5	164	0	0	169	410

Hourly Total	48	93	0	0	141	773	22	0	0	795	22	627	0	0	649	1585
5:00 PM	10	15	0	0	25	211	7	0	0	218	5	192	0	0	197	440
5:15 PM	2	21	0	0	23	194	9	0	0	203	7	189	0	0	196	422
5:30 PM	18	27	0	0	45	198	12	0	0	210	9	160	0	0	169	424
5:45 PM	5	10	0	0	15	180	11	0	0	191	4	159	1	0	164	370
Hourly Total	35	73	0	0	108	783	39	0	0	822	25	700	1	0	726	1656
Grand Total	209	489	0	0	698	4508	175	0	0	4683	186	4682	1	0	4869	10250
Approach %	29.9	70.1	0.0	-	-	96.3	3.7	0.0	-	-	3.8	96.2	0.0	-	-	-
Total %	2.0	4.8	0.0	-	6.8	44.0	1.7	0.0	-	45.7	1.8	45.7	0.0	-	47.5	-
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Cars & Light Goods	188	380	0	-	568	4306	158	0	-	4464	148	4335	1	-	4484	9516
% Cars & Light Goods	90.0	77.7	-	-	81.4	95.5	90.3	-	-	95.3	79.6	92.6	100.0	-	92.1	92.8
Buses	12	4	0	-	16	31	7	0	-	38	1	41	0	-	42	96
% Buses	5.7	0.8	-	-	2.3	0.7	4.0	-	-	0.8	0.5	0.9	0.0	-	0.9	0.9
Single-Unit Trucks	9	103	0	-	112	121	10	0	-	131	36	209	0	-	245	488
% Single-Unit Trucks	4.3	21.1	-	-	16.0	2.7	5.7	-	-	2.8	19.4	4.5	0.0	-	5.0	4.8
Articulated Trucks	0	2	0	-	2	50	0	0	-	50	1	97	0	-	98	150
% Articulated Trucks	0.0	0.4	-	-	0.3	1.1	0.0	-	-	1.1	0.5	2.1	0.0	-	2.0	1.5
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Wheat Boom Drive
Site Code: 220208
Start Date: 12/01/2022



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Wheat Boom Drive
Site Code: 220208
Start Date: 12/01/2022

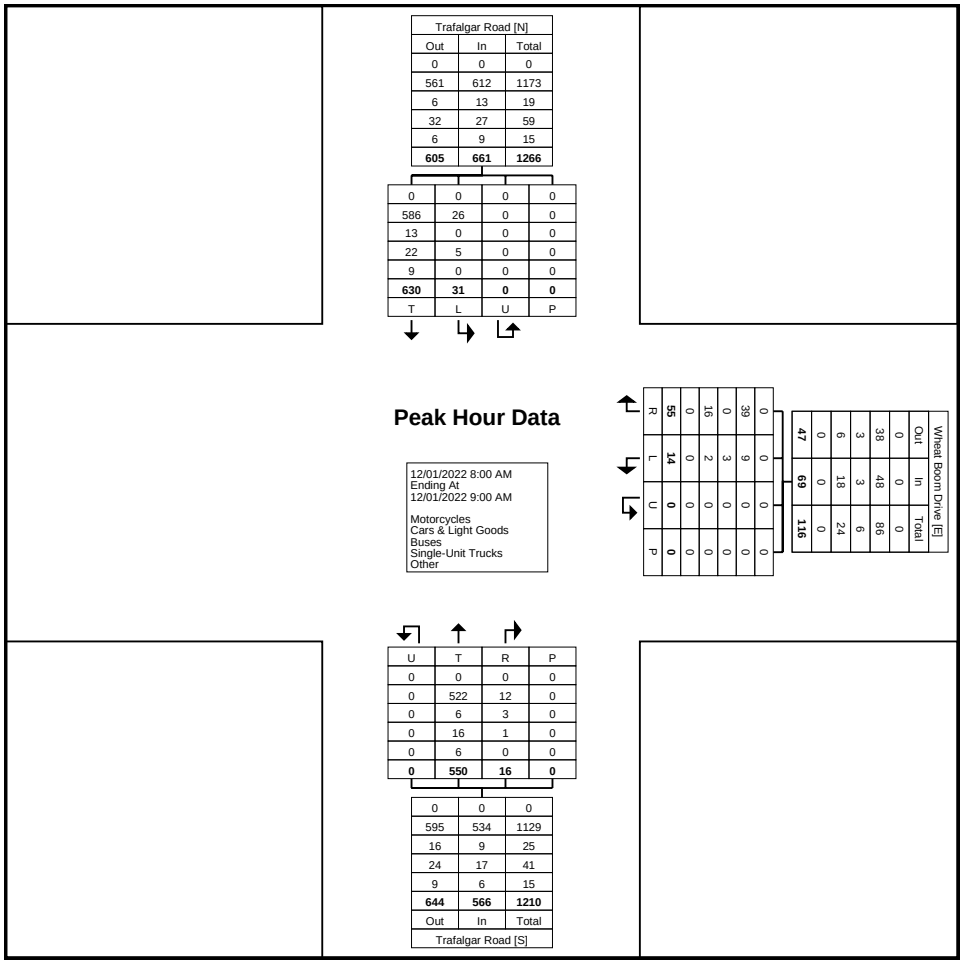
Turning Movement Peak Hour Data (8:00 AM)

Start Time	Wheat Boom Drive Westbound					Trafalgar Road Northbound					Trafalgar Road Southbound					
	Left	Right	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Int. Total
8:00 AM	2	15	0	0	17	131	2	0	0	133	4	143	0	0	147	297
8:15 AM	4	13	0	0	17	158	7	0	0	165	4	161	0	0	165	347
8:30 AM	4	12	0	0	16	121	2	0	0	123	9	171	0	0	180	319
8:45 AM	4	15	0	0	19	140	5	0	0	145	14	155	0	0	169	333
Total	14	55	0	0	69	550	16	0	0	566	31	630	0	0	661	1296
Approach %	20.3	79.7	0.0	-	-	97.2	2.8	0.0	-	-	4.7	95.3	0.0	-	-	-
Total %	1.1	4.2	0.0	-	5.3	42.4	1.2	0.0	-	43.7	2.4	48.6	0.0	-	51.0	-
PHF	0.875	0.917	0.000	-	0.908	0.870	0.571	0.000	-	0.858	0.554	0.921	0.000	-	0.918	0.934
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	9	39	0	-	48	522	12	0	-	534	26	586	0	-	612	1194
% Cars & Light Goods	64.3	70.9	-	-	69.6	94.9	75.0	-	-	94.3	83.9	93.0	-	-	92.6	92.1
Buses	3	0	0	-	3	6	3	0	-	9	0	13	0	-	13	25
% Buses	21.4	0.0	-	-	4.3	1.1	18.8	-	-	1.6	0.0	2.1	-	-	2.0	1.9
Single-Unit Trucks	2	16	0	-	18	16	1	0	-	17	5	22	0	-	27	62
% Single-Unit Trucks	14.3	29.1	-	-	26.1	2.9	6.3	-	-	3.0	16.1	3.5	-	-	4.1	4.8
Articulated Trucks	0	0	0	-	0	6	0	0	-	6	0	9	0	-	9	15
% Articulated Trucks	0.0	0.0	-	-	0.0	1.1	0.0	-	-	1.1	0.0	1.4	-	-	1.4	1.2
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Wheat Boom Drive
Site Code: 220208
Start Date: 12/01/2022



Turning Movement Peak Hour Data Plot (8:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Wheat Boom Drive
Site Code: 220208
Start Date: 12/01/2022

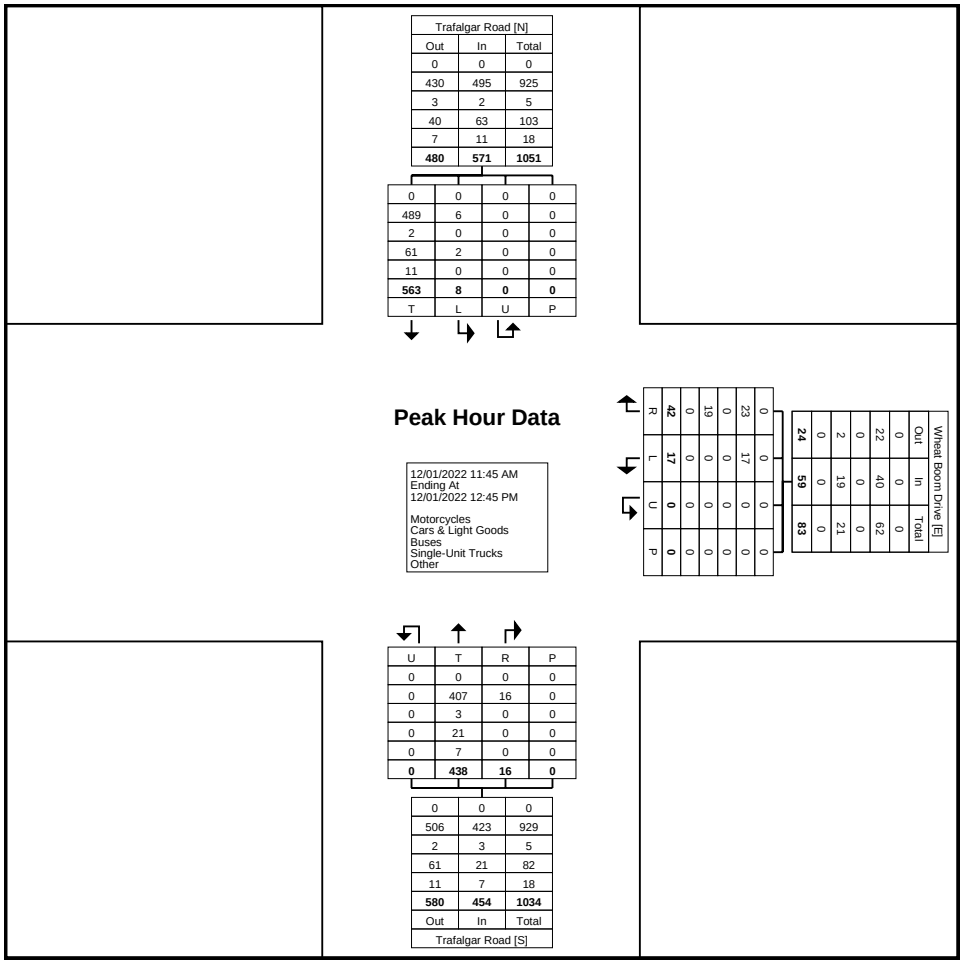
Turning Movement Peak Hour Data (11:45 AM)

Start Time	Wheat Boom Drive Westbound					Trafalgar Road Northbound					Trafalgar Road Southbound					
	Left	Right	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Int. Total
11:45 AM	3	14	0	0	17	119	2	0	0	121	2	146	0	0	148	286
12:00 PM	4	10	0	0	14	111	5	0	0	116	2	145	0	0	147	277
12:15 PM	6	10	0	0	16	110	5	0	0	115	0	129	0	0	129	260
12:30 PM	4	8	0	0	12	98	4	0	0	102	4	143	0	0	147	261
Total	17	42	0	0	59	438	16	0	0	454	8	563	0	0	571	1084
Approach %	28.8	71.2	0.0	-	-	96.5	3.5	0.0	-	-	1.4	98.6	0.0	-	-	-
Total %	1.6	3.9	0.0	-	5.4	40.4	1.5	0.0	-	41.9	0.7	51.9	0.0	-	52.7	-
PHF	0.708	0.750	0.000	-	0.868	0.920	0.800	0.000	-	0.938	0.500	0.964	0.000	-	0.965	0.948
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	17	23	0	-	40	407	16	0	-	423	6	489	0	-	495	958
% Cars & Light Goods	100.0	54.8	-	-	67.8	92.9	100.0	-	-	93.2	75.0	86.9	-	-	86.7	88.4
Buses	0	0	0	-	0	3	0	0	-	3	0	2	0	-	2	5
% Buses	0.0	0.0	-	-	0.0	0.7	0.0	-	-	0.7	0.0	0.4	-	-	0.4	0.5
Single-Unit Trucks	0	19	0	-	19	21	0	0	-	21	2	61	0	-	63	103
% Single-Unit Trucks	0.0	45.2	-	-	32.2	4.8	0.0	-	-	4.6	25.0	10.8	-	-	11.0	9.5
Articulated Trucks	0	0	0	-	0	7	0	0	-	7	0	11	0	-	11	18
% Articulated Trucks	0.0	0.0	-	-	0.0	1.6	0.0	-	-	1.5	0.0	2.0	-	-	1.9	1.7
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Wheat Boom Drive
Site Code: 220208
Start Date: 12/01/2022



Turning Movement Peak Hour Data Plot (11:45 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Wheat Boom Drive
Site Code: 220208
Start Date: 12/01/2022

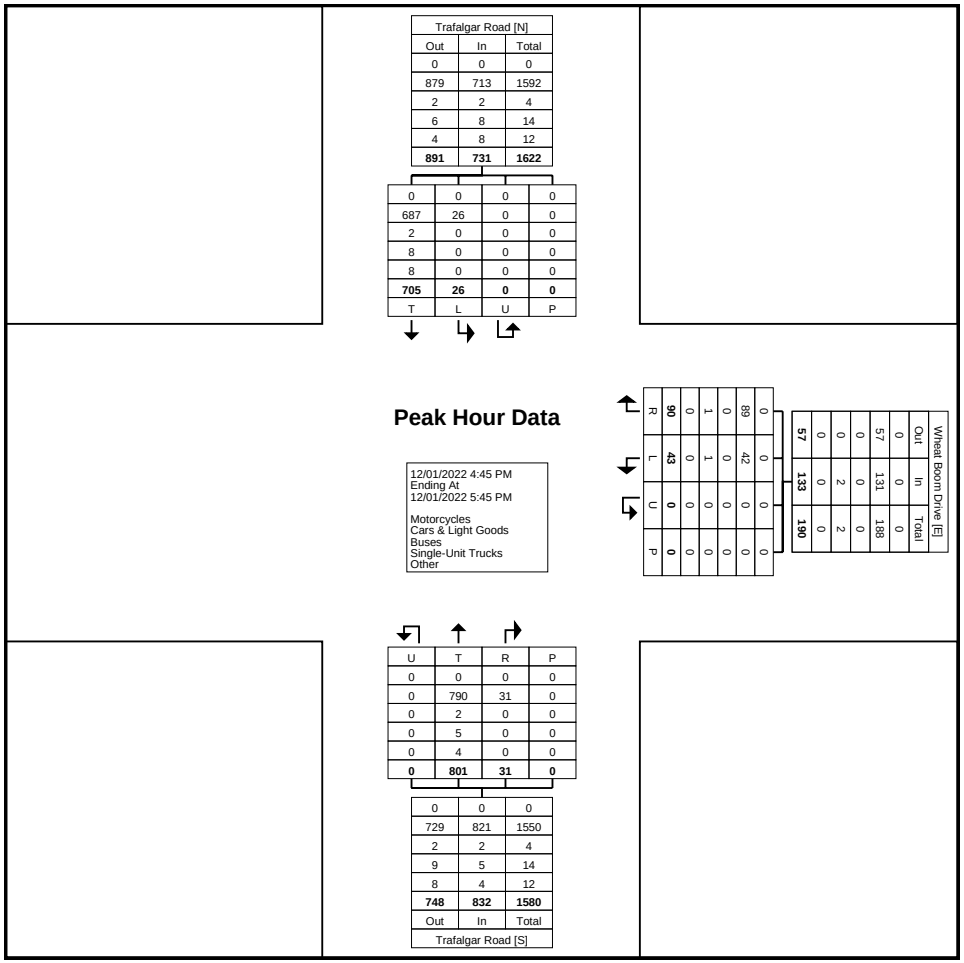
Turning Movement Peak Hour Data (4:45 PM)

Start Time	Wheat Boom Drive Westbound					Trafalgar Road Northbound					Trafalgar Road Southbound					
	Left	Right	U-Turn	Peds	App. Total	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Int. Total
4:45 PM	13	27	0	0	40	198	3	0	0	201	5	164	0	0	169	410
5:00 PM	10	15	0	0	25	211	7	0	0	218	5	192	0	0	197	440
5:15 PM	2	21	0	0	23	194	9	0	0	203	7	189	0	0	196	422
5:30 PM	18	27	0	0	45	198	12	0	0	210	9	160	0	0	169	424
Total	43	90	0	0	133	801	31	0	0	832	26	705	0	0	731	1696
Approach %	32.3	67.7	0.0	-	-	96.3	3.7	0.0	-	-	3.6	96.4	0.0	-	-	-
Total %	2.5	5.3	0.0	-	7.8	47.2	1.8	0.0	-	49.1	1.5	41.6	0.0	-	43.1	-
PHF	0.597	0.833	0.000	-	0.739	0.949	0.646	0.000	-	0.954	0.722	0.918	0.000	-	0.928	0.964
Motorcycles	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	42	89	0	-	131	790	31	0	-	821	26	687	0	-	713	1665
% Cars & Light Goods	97.7	98.9	-	-	98.5	98.6	100.0	-	-	98.7	100.0	97.4	-	-	97.5	98.2
Buses	0	0	0	-	0	2	0	0	-	2	0	2	0	-	2	4
% Buses	0.0	0.0	-	-	0.0	0.2	0.0	-	-	0.2	0.0	0.3	-	-	0.3	0.2
Single-Unit Trucks	1	1	0	-	2	5	0	0	-	5	0	8	0	-	8	15
% Single-Unit Trucks	2.3	1.1	-	-	1.5	0.6	0.0	-	-	0.6	0.0	1.1	-	-	1.1	0.9
Articulated Trucks	0	0	0	-	0	4	0	0	-	4	0	8	0	-	8	12
% Articulated Trucks	0.0	0.0	-	-	0.0	0.5	0.0	-	-	0.5	0.0	1.1	-	-	1.1	0.7
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Wheat Boom Drive
Site Code: 220208
Start Date: 12/01/2022



Turning Movement Peak Hour Data Plot (4:45 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Dundas Street
Site Code: 220208
Start Date: 12/01/2022

Turning Movement Data

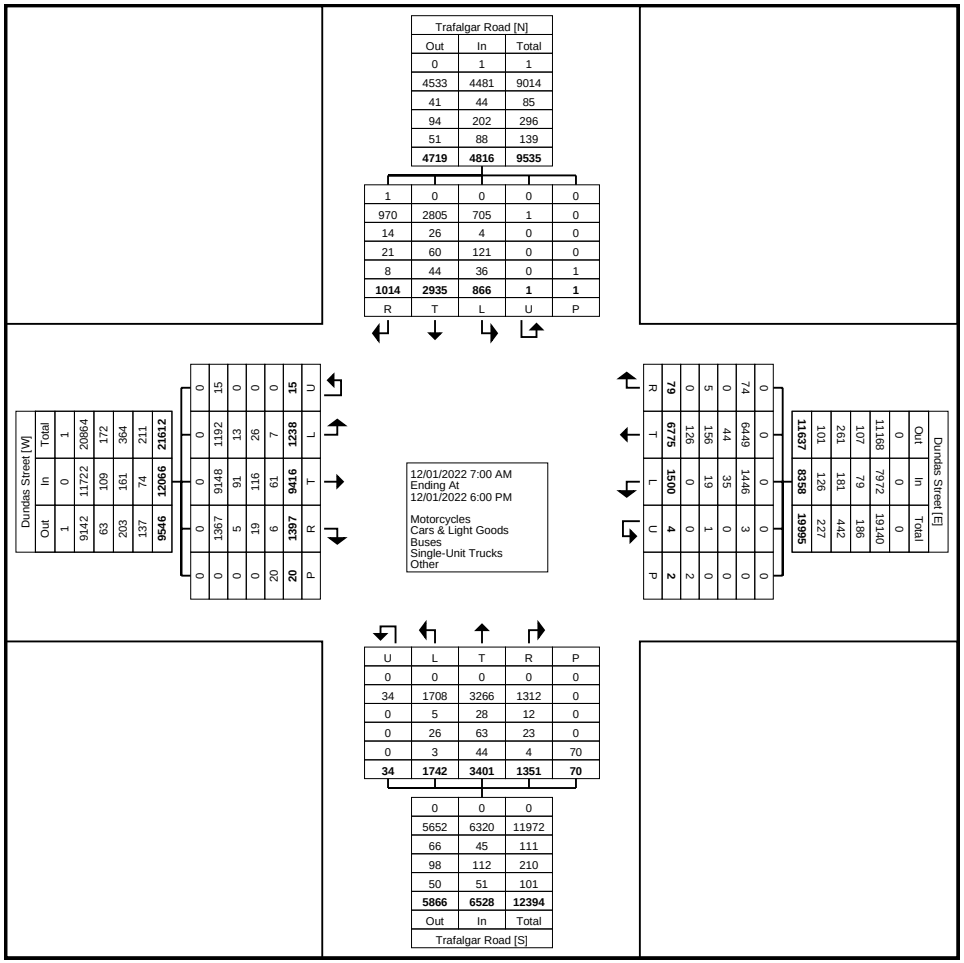
Start Time	Dundas Street Eastbound						Dundas Street Westbound						Trafalgar Road Northbound						Trafalgar Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	44	287	31	0	1	362	32	157	1	0	0	190	19	49	18	0	0	86	23	47	28	0	0	98	736
7:15 AM	37	332	36	0	2	405	25	150	1	0	0	176	21	61	15	0	4	97	32	83	24	0	0	139	817
7:30 AM	44	414	38	0	0	496	31	145	4	0	0	180	24	93	20	0	0	137	27	105	17	0	0	149	962
7:45 AM	41	470	41	0	2	552	43	148	1	0	0	192	21	89	23	0	0	133	19	115	22	0	0	156	1033
Hourly Total	166	1503	146	0	5	1815	131	600	7	0	0	738	85	292	76	0	4	453	101	350	91	0	0	542	3548
8:00 AM	41	359	55	0	1	455	42	170	3	0	0	215	38	101	18	1	3	158	20	116	28	0	0	164	992
8:15 AM	52	361	42	0	2	455	36	193	3	1	0	233	41	123	34	0	1	198	25	107	17	0	0	149	1035
8:30 AM	47	305	51	2	0	405	43	183	1	0	0	227	52	104	34	0	0	190	29	125	21	0	0	175	997
8:45 AM	61	305	43	0	0	409	51	182	2	0	0	235	48	106	32	1	1	187	21	113	22	0	0	156	987
Hourly Total	201	1330	191	2	3	1724	172	728	9	1	0	910	179	434	118	2	5	733	95	461	88	0	0	644	4011
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	21	232	44	0	0	297	51	151	2	0	0	204	48	77	46	3	2	174	29	75	20	0	0	124	799
11:15 AM	23	232	41	2	0	298	44	164	6	0	0	214	42	70	34	1	3	147	29	62	16	0	0	107	766
11:30 AM	27	202	34	0	2	263	39	166	5	0	0	210	59	65	33	0	5	157	34	95	19	0	0	148	778
11:45 AM	38	247	48	1	1	334	64	162	8	0	0	234	57	74	37	2	6	170	34	79	26	0	0	139	877
Hourly Total	109	913	167	3	3	1192	198	643	21	0	0	862	206	286	150	6	16	648	126	311	81	0	0	518	3220
12:00 PM	28	234	38	1	0	301	54	171	3	0	0	228	50	94	56	2	2	202	42	98	19	0	0	159	890
12:15 PM	24	268	50	0	3	342	55	202	3	0	0	260	47	75	53	3	6	178	27	70	19	0	0	116	896
12:30 PM	25	232	33	0	0	290	60	183	4	0	0	247	57	74	63	2	2	196	30	79	23	0	0	132	865
12:45 PM	27	265	47	0	0	339	59	221	1	0	0	281	72	65	53	1	3	191	18	63	22	0	0	103	914
Hourly Total	104	999	168	1	3	1272	228	777	11	0	0	1016	226	308	225	8	13	767	117	310	83	0	0	510	3565
1:00 PM	28	228	25	0	0	281	54	177	1	0	0	232	61	70	51	1	1	183	23	75	16	0	0	114	810
1:15 PM	23	258	46	0	1	327	58	210	1	1	0	270	68	71	41	0	5	180	12	70	20	0	0	102	879
1:30 PM	37	226	40	0	1	303	69	185	0	0	0	254	63	90	47	0	2	200	13	88	42	0	1	143	900
1:45 PM	25	285	39	1	2	350	59	244	1	0	0	304	71	71	58	1	2	201	20	67	22	0	0	109	964
Hourly Total	113	997	150	1	4	1261	240	816	3	1	0	1060	263	302	197	2	10	764	68	300	100	0	1	468	3553
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	32	277	43	0	0	352	55	241	5	0	0	301	73	153	48	3	6	277	36	99	31	0	0	166	1096
3:15 PM	40	273	40	0	0	353	35	279	1	0	0	315	65	176	44	1	3	286	32	98	62	0	0	192	1146
3:30 PM	37	277	47	1	0	362	54	275	0	0	0	329	73	128	47	1	0	249	28	96	49	0	0	173	1113
3:45 PM	33	262	53	1	0	349	26	281	1	0	0	308	60	151	49	1	1	261	33	107	52	0	0	192	1110
Hourly Total	142	1089	183	2	0	1416	170	1076	7	0	0	1253	271	608	188	6	10	1073	129	400	194	0	0	723	4465
4:00 PM	55	314	49	1	1	419	42	268	3	0	0	313	76	143	42	0	1	261	25	86	49	0	0	160	1153
4:15 PM	45	330	51	1	0	427	43	261	1	0	0	305	66	142	59	0	1	267	32	106	40	1	0	179	1178
4:30 PM	56	319	49	0	0	424	41	273	3	0	0	317	71	147	43	1	1	262	33	93	36	0	0	162	1165

4:45 PM	48	314	37	1	0	400	44	278	4	0	0	326	54	140	60	0	2	254	28	99	46	0	0	173	1153
Hourly Total	204	1277	186	3	1	1670	170	1080	11	0	0	1261	267	572	204	1	5	1044	118	384	171	1	0	674	4649
5:00 PM	52	334	46	0	0	432	56	262	4	1	0	323	62	154	55	0	2	271	35	115	39	0	0	189	1215
5:15 PM	55	345	57	0	0	457	54	270	2	1	2	327	62	151	52	1	3	266	20	103	64	0	0	187	1237
5:30 PM	52	324	59	1	0	436	46	269	1	0	0	316	65	151	48	2	0	266	30	95	52	0	0	177	1195
5:45 PM	40	305	44	2	1	391	35	254	3	0	0	292	56	143	38	6	2	243	27	106	51	0	0	184	1110
Hourly Total	199	1308	206	3	1	1716	191	1055	10	2	2	1258	245	599	193	9	7	1046	112	419	206	0	0	737	4757
Grand Total	1238	9416	1397	15	20	12066	1500	6775	79	4	2	8358	1742	3401	1351	34	70	6528	866	2935	1014	1	1	4816	31768
Approach %	10.3	78.0	11.6	0.1	-	-	17.9	81.1	0.9	0.0	-	-	26.7	52.1	20.7	0.5	-	-	18.0	60.9	21.1	0.0	-	-	-
Total %	3.9	29.6	4.4	0.0	-	38.0	4.7	21.3	0.2	0.0	-	26.3	5.5	10.7	4.3	0.1	-	20.5	2.7	9.2	3.2	0.0	-	15.2	-
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
% Motorcycles	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.1	0.0	-	0.0	0.0
Cars & Light Goods	1192	9148	1367	15	-	11722	1446	6449	74	3	-	7972	1708	3266	1312	34	-	6320	705	2805	970	1	-	4481	30495
% Cars & Light Goods	96.3	97.2	97.9	100.0	-	97.1	96.4	95.2	93.7	75.0	-	95.4	98.0	96.0	97.1	100.0	-	96.8	81.4	95.6	95.7	100.0	-	93.0	96.0
Buses	13	91	5	0	-	109	35	44	0	0	-	79	5	28	12	0	-	45	4	26	14	0	-	44	277
% Buses	1.1	1.0	0.4	0.0	-	0.9	2.3	0.6	0.0	0.0	-	0.9	0.3	0.8	0.9	0.0	-	0.7	0.5	0.9	1.4	0.0	-	0.9	0.9
Single-Unit Trucks	26	116	19	0	-	161	19	156	5	1	-	181	26	63	23	0	-	112	121	60	21	0	-	202	656
% Single-Unit Trucks	2.1	1.2	1.4	0.0	-	1.3	1.3	2.3	6.3	25.0	-	2.2	1.5	1.9	1.7	0.0	-	1.7	14.0	2.0	2.1	0.0	-	4.2	2.1
Articulated Trucks	7	61	6	0	-	74	0	126	0	0	-	126	3	44	4	0	-	51	36	43	8	0	-	87	338
% Articulated Trucks	0.6	0.6	0.4	0.0	-	0.6	0.0	1.9	0.0	0.0	-	1.5	0.2	1.3	0.3	0.0	-	0.8	4.2	1.5	0.8	0.0	-	1.8	1.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	1
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	10.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	18	-	-	-	-	-	2	-	-	-	-	-	70	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	90.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Dundas Street
Site Code: 220208
Start Date: 12/01/2022



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Dundas Street
Site Code: 220208
Start Date: 12/01/2022

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Dundas Street Eastbound						Dundas Street Westbound						Trafalgar Road Northbound						Trafalgar Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:45 AM	41	470	41	0	2	552	43	148	1	0	0	192	21	89	23	0	0	133	19	115	22	0	0	156	1033
8:00 AM	41	359	55	0	1	455	42	170	3	0	0	215	38	101	18	1	3	158	20	116	28	0	0	164	992
8:15 AM	52	361	42	0	2	455	36	193	3	1	0	233	41	123	34	0	1	198	25	107	17	0	0	149	1035
8:30 AM	47	305	51	2	0	405	43	183	1	0	0	227	52	104	34	0	0	190	29	125	21	0	0	175	997
Total	181	1495	189	2	5	1867	164	694	8	1	0	867	152	417	109	1	4	679	93	463	88	0	0	644	4057
Approach %	9.7	80.1	10.1	0.1	-	-	18.9	80.0	0.9	0.1	-	-	22.4	61.4	16.1	0.1	-	-	14.4	71.9	13.7	0.0	-	-	-
Total %	4.5	36.8	4.7	0.0	-	46.0	4.0	17.1	0.2	0.0	-	21.4	3.7	10.3	2.7	0.0	-	16.7	2.3	11.4	2.2	0.0	-	15.9	-
PHF	0.870	0.795	0.859	0.250	-	0.846	0.953	0.899	0.667	0.250	-	0.930	0.731	0.848	0.801	0.250	-	0.857	0.802	0.926	0.786	0.000	-	0.920	0.980
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	176	1468	186	2	-	1832	152	624	6	1	-	783	146	395	104	1	-	646	89	440	83	0	-	612	3873
% Cars & Light Goods	97.2	98.2	98.4	100.0	-	98.1	92.7	89.9	75.0	100.0	-	90.3	96.1	94.7	95.4	100.0	-	95.1	95.7	95.0	94.3	-	-	95.0	95.5
Buses	4	11	1	0	-	16	9	10	0	0	-	19	2	6	5	0	-	13	0	6	1	0	-	7	55
% Buses	2.2	0.7	0.5	0.0	-	0.9	5.5	1.4	0.0	0.0	-	2.2	1.3	1.4	4.6	0.0	-	1.9	0.0	1.3	1.1	-	-	1.1	1.4
Single-Unit Trucks	0	11	1	0	-	12	3	33	2	0	-	38	4	9	0	0	-	13	4	13	3	0	-	20	83
% Single-Unit Trucks	0.0	0.7	0.5	0.0	-	0.6	1.8	4.8	25.0	0.0	-	4.4	2.6	2.2	0.0	0.0	-	1.9	4.3	2.8	3.4	-	-	3.1	2.0
Articulated Trucks	1	5	1	0	-	7	0	27	0	0	-	27	0	7	0	0	-	7	0	4	1	0	-	5	46
% Articulated Trucks	0.6	0.3	0.5	0.0	-	0.4	0.0	3.9	0.0	0.0	-	3.1	0.0	1.7	0.0	0.0	-	1.0	0.0	0.9	1.1	-	-	0.8	1.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	5	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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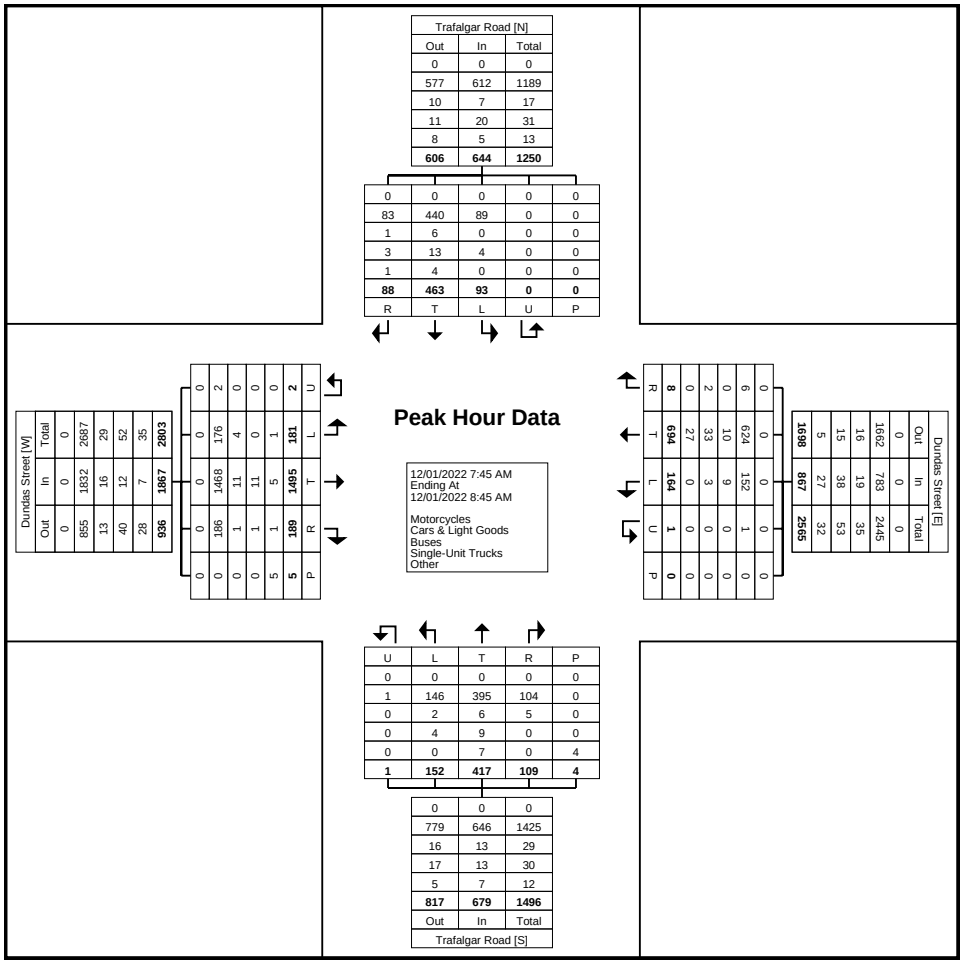

Turning Movement Peak Hour Data Plot (7:45 AM)

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Count Name: Trafalgar Road & Dundas Street
Site Code: 220208
Start Date: 12/01/2022

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Dundas Street Eastbound						Dundas Street Westbound						Trafalgar Road Northbound						Trafalgar Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
12:00 PM	28	234	38	1	0	301	54	171	3	0	0	228	50	94	56	2	2	202	42	98	19	0	0	159	890
12:15 PM	24	268	50	0	3	342	55	202	3	0	0	260	47	75	53	3	6	178	27	70	19	0	0	116	896
12:30 PM	25	232	33	0	0	290	60	183	4	0	0	247	57	74	63	2	2	196	30	79	23	0	0	132	865
12:45 PM	27	265	47	0	0	339	59	221	1	0	0	281	72	65	53	1	3	191	18	63	22	0	0	103	914
Total	104	999	168	1	3	1272	228	777	11	0	0	1016	226	308	225	8	13	767	117	310	83	0	0	510	3565
Approach %	8.2	78.5	13.2	0.1	-	-	22.4	76.5	1.1	0.0	-	-	29.5	40.2	29.3	1.0	-	-	22.9	60.8	16.3	0.0	-	-	-
Total %	2.9	28.0	4.7	0.0	-	35.7	6.4	21.8	0.3	0.0	-	28.5	6.3	8.6	6.3	0.2	-	21.5	3.3	8.7	2.3	0.0	-	14.3	-
PHF	0.929	0.932	0.840	0.250	-	0.930	0.950	0.879	0.688	0.000	-	0.904	0.785	0.819	0.893	0.667	-	0.949	0.696	0.791	0.902	0.000	-	0.802	0.975
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	99	968	164	1	-	1232	221	738	11	0	-	970	222	288	216	8	-	734	87	292	79	0	-	458	3394
% Cars & Light Goods	95.2	96.9	97.6	100.0	-	96.9	96.9	95.0	100.0	-	-	95.5	98.2	93.5	96.0	100.0	-	95.7	74.4	94.2	95.2	-	-	89.8	95.2
Buses	0	5	0	0	-	5	2	0	0	0	-	2	0	3	0	0	-	3	0	2	0	0	-	2	12
% Buses	0.0	0.5	0.0	0.0	-	0.4	0.9	0.0	0.0	-	-	0.2	0.0	1.0	0.0	0.0	-	0.4	0.0	0.6	0.0	-	-	0.4	0.3
Single-Unit Trucks	5	17	4	0	-	26	5	20	0	0	-	25	4	9	8	0	-	21	28	10	4	0	-	42	114
% Single-Unit Trucks	4.8	1.7	2.4	0.0	-	2.0	2.2	2.6	0.0	-	-	2.5	1.8	2.9	3.6	0.0	-	2.7	23.9	3.2	4.8	-	-	8.2	3.2
Articulated Trucks	0	9	0	0	-	9	0	19	0	0	-	19	0	8	1	0	-	9	2	6	0	0	-	8	45
% Articulated Trucks	0.0	0.9	0.0	0.0	-	0.7	0.0	2.4	0.0	-	-	1.9	0.0	2.6	0.4	0.0	-	1.2	1.7	1.9	0.0	-	-	1.6	1.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	33.3	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	13	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	66.7	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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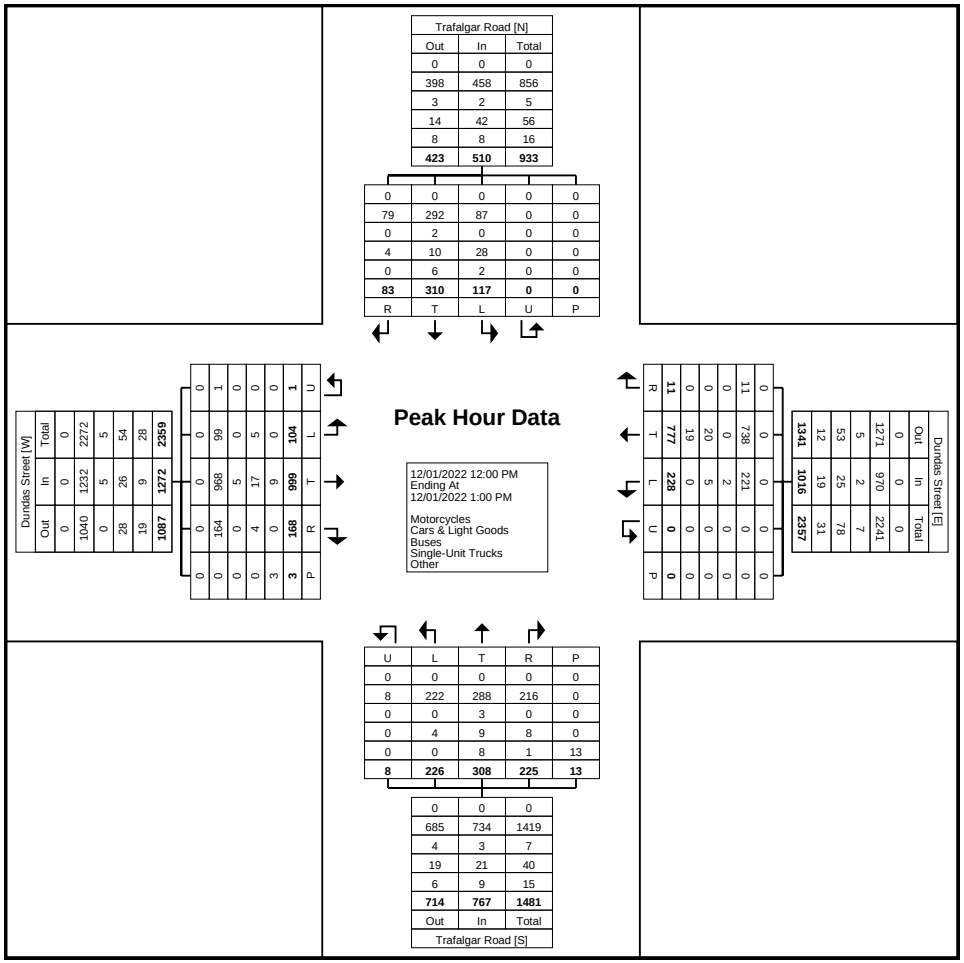

Turning Movement Peak Hour Data Plot (12:00 PM)

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5A-150 Pinebush Rd

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

Count Name: Trafalgar Road & Dundas Street
Site Code: 220208
Start Date: 12/01/2022

Turning Movement Peak Hour Data (4:45 PM)

Start Time	Dundas Street Eastbound						Dundas Street Westbound						Trafalgar Road Northbound						Trafalgar Road Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
4:45 PM	48	314	37	1	0	400	44	278	4	0	0	326	54	140	60	0	2	254	28	99	46	0	0	173	1153
5:00 PM	52	334	46	0	0	432	56	262	4	1	0	323	62	154	55	0	2	271	35	115	39	0	0	189	1215
5:15 PM	55	345	57	0	0	457	54	270	2	1	2	327	62	151	52	1	3	266	20	103	64	0	0	187	1237
5:30 PM	52	324	59	1	0	436	46	269	1	0	0	316	65	151	48	2	0	266	30	95	52	0	0	177	1195
Total	207	1317	199	2	0	1725	200	1079	11	2	2	1292	243	596	215	3	7	1057	113	412	201	0	0	726	4800
Approach %	12.0	76.3	11.5	0.1	-	-	15.5	83.5	0.9	0.2	-	-	23.0	56.4	20.3	0.3	-	-	15.6	56.7	27.7	0.0	-	-	-
Total %	4.3	27.4	4.1	0.0	-	35.9	4.2	22.5	0.2	0.0	-	26.9	5.1	12.4	4.5	0.1	-	22.0	2.4	8.6	4.2	0.0	-	15.1	-
PHF	0.941	0.954	0.843	0.500	-	0.944	0.893	0.970	0.688	0.500	-	0.988	0.935	0.968	0.896	0.375	-	0.975	0.807	0.896	0.785	0.000	-	0.960	0.970
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	205	1286	197	2	-	1690	196	1066	11	1	-	1274	242	588	210	3	-	1043	103	401	201	0	-	705	4712
% Cars & Light Goods	99.0	97.6	99.0	100.0	-	98.0	98.0	98.8	100.0	50.0	-	98.6	99.6	98.7	97.7	100.0	-	98.7	91.2	97.3	100.0	-	-	97.1	98.2
Buses	0	8	0	0	-	8	4	1	0	0	-	5	0	2	0	0	-	2	0	3	0	0	-	3	18
% Buses	0.0	0.6	0.0	0.0	-	0.5	2.0	0.1	0.0	0.0	-	0.4	0.0	0.3	0.0	0.0	-	0.2	0.0	0.7	0.0	-	-	0.4	0.4
Single-Unit Trucks	1	15	2	0	-	18	0	6	0	1	-	7	1	3	5	0	-	9	5	4	0	0	-	9	43
% Single-Unit Trucks	0.5	1.1	1.0	0.0	-	1.0	0.0	0.6	0.0	50.0	-	0.5	0.4	0.5	2.3	0.0	-	0.9	4.4	1.0	0.0	-	-	1.2	0.9
Articulated Trucks	1	8	0	0	-	9	0	6	0	0	-	6	0	3	0	0	-	3	5	4	0	0	-	9	27
% Articulated Trucks	0.5	0.6	0.0	0.0	-	0.5	0.0	0.6	0.0	0.0	-	0.5	0.0	0.5	0.0	0.0	-	0.3	4.4	1.0	0.0	-	-	1.2	0.6
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	7	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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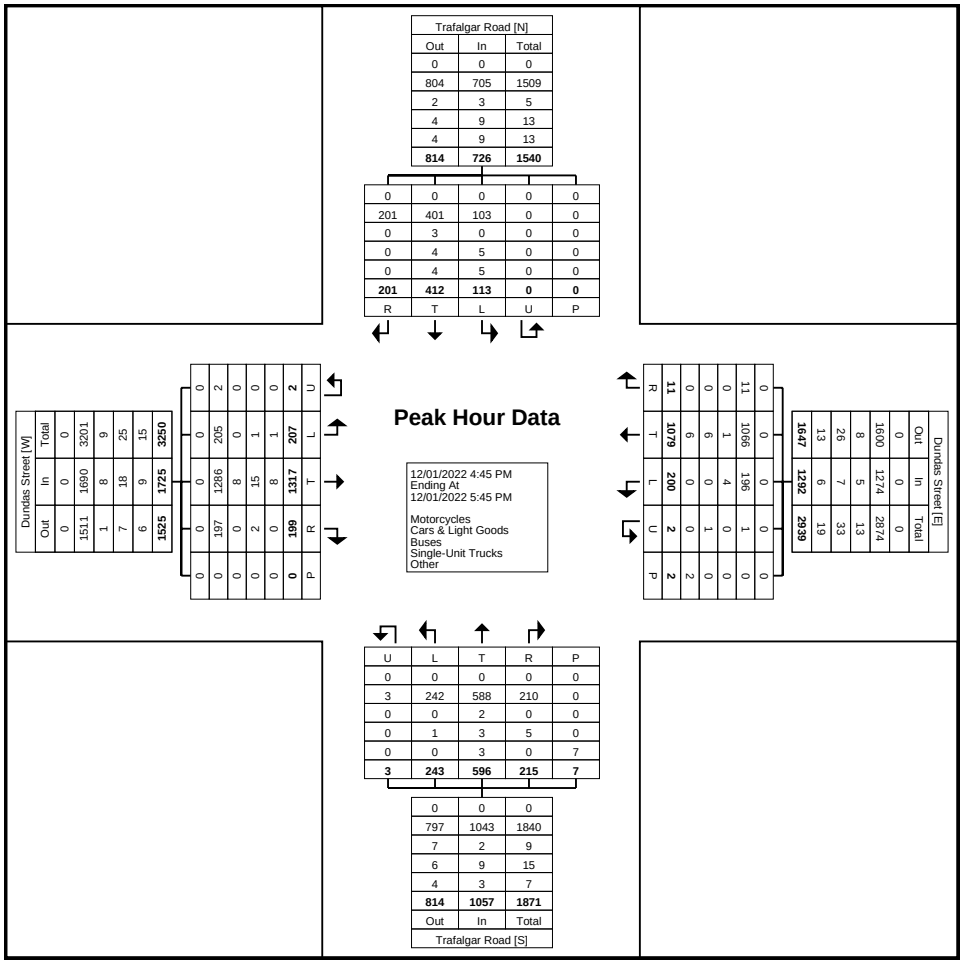
Site Code: 220208
Start Date: 12/01/2022



Turning Movement Peak Hour Data Plot (4:45 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Dundas Street & Postridge Drive
Site Code: 220208
Start Date: 05/25/2023

Turning Movement Data

Start Time	Dundas Street Eastbound						Dundas Street Westbound						Postridge Drive Northbound						Postridge Drive Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	4	407	4	0	0	415	16	201	8	0	0	225	9	2	22	0	2	33	4	7	9	0	0	20	693
7:15 AM	9	413	1	0	2	423	12	211	10	0	0	233	12	6	25	0	1	43	14	9	4	0	0	27	726
7:30 AM	3	467	4	1	3	475	20	140	8	0	2	168	9	3	29	0	3	41	15	6	21	0	0	42	726
7:45 AM	4	541	5	0	0	550	24	220	10	1	0	255	12	3	30	0	2	45	14	16	22	0	0	52	902
Hourly Total	20	1828	14	1	5	1863	72	772	36	1	2	881	42	14	106	0	8	162	47	38	56	0	0	141	3047
8:00 AM	9	410	9	0	1	428	25	222	15	0	0	262	16	5	36	0	0	57	9	14	25	0	0	48	795
8:15 AM	10	407	8	1	0	426	42	307	14	1	1	364	13	12	42	1	2	68	15	25	21	0	0	61	919
8:30 AM	11	398	8	0	3	417	33	251	13	3	0	300	13	13	33	0	2	59	26	17	24	1	0	68	844
8:45 AM	10	345	13	0	4	368	48	312	13	0	2	373	11	10	29	3	2	53	14	18	25	0	1	57	851
Hourly Total	40	1560	38	1	8	1639	148	1092	55	4	3	1299	53	40	140	4	6	237	64	74	95	1	1	234	3409
9:00 AM	19	395	8	2	3	424	32	282	7	0	0	321	10	12	38	0	0	60	18	12	11	0	1	41	846
9:15 AM	14	401	6	2	2	423	27	235	9	0	0	271	10	9	23	1	0	43	11	13	11	0	1	35	772
9:30 AM	13	348	10	2	6	373	25	246	10	0	0	281	16	10	33	0	2	59	13	12	4	0	0	29	742
9:45 AM	13	273	6	0	4	292	36	240	9	0	0	285	14	7	33	0	2	54	16	12	6	0	1	34	665
Hourly Total	59	1417	30	6	15	1512	120	1003	35	0	0	1158	50	38	127	1	4	216	58	49	32	0	3	139	3025
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:30 AM	11	268	4	2	8	285	36	240	16	1	0	293	7	4	20	1	1	32	14	8	6	0	0	28	638
11:45 AM	9	316	15	0	0	340	40	298	5	4	1	347	18	11	28	1	6	58	9	15	4	0	2	28	773
Hourly Total	20	584	19	2	8	625	76	538	21	5	1	640	25	15	48	2	7	90	23	23	10	0	2	56	1411
12:00 PM	11	328	17	4	2	360	47	280	7	1	0	335	23	5	48	2	0	78	13	14	12	0	0	39	812
12:15 PM	13	345	13	7	4	378	53	272	10	0	0	335	25	13	30	1	2	69	12	11	9	0	1	32	814
12:30 PM	13	282	13	2	5	310	33	290	12	3	1	338	21	14	23	3	1	61	8	6	10	0	0	24	733
12:45 PM	14	332	9	2	3	357	41	314	8	0	1	363	18	7	34	1	0	60	5	2	12	0	1	19	799
Hourly Total	51	1287	52	15	14	1405	174	1156	37	4	2	1371	87	39	135	7	3	268	38	33	43	0	2	114	3158
1:00 PM	12	286	13	0	6	311	30	321	6	2	1	359	22	12	25	0	1	59	9	7	14	0	0	30	759
1:15 PM	11	277	7	0	2	295	41	308	6	0	0	355	10	8	16	0	2	34	9	4	3	0	0	16	700
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	23	563	20	0	8	606	71	629	12	2	1	714	32	20	41	0	3	93	18	11	17	0	0	46	1459
4:00 PM	19	317	23	0	3	359	54	427	17	0	1	498	24	14	33	1	5	72	13	17	21	0	1	51	980
4:15 PM	15	353	12	0	6	380	62	450	21	0	0	533	27	8	26	1	3	62	15	13	13	0	1	41	1016
4:30 PM	16	348	11	0	7	375	61	473	8	0	0	542	27	13	36	3	6	79	15	16	14	0	0	45	1041
4:45 PM	15	359	13	0	8	387	51	448	20	0	5	519	21	15	34	2	2	72	18	14	6	0	1	38	1016
Hourly Total	65	1377	59	0	24	1501	228	1798	66	0	6	2092	99	50	129	7	16	285	61	60	54	0	3	175	4053
5:00 PM	12	317	15	1	3	345	71	475	21	1	1	568	26	24	42	3	4	95	15	10	16	0	6	41	1049
5:15 PM	20	362	19	0	4	401	67	514	22	4	1	607	34	25	19	1	6	79	18	13	7	0	1	38	1125

5:30 PM	26	347	17	0	6	390	60	435	19	1	4	515	22	25	40	1	3	88	16	18	9	0	1	43	1036
5:45 PM	14	331	19	0	6	364	44	465	19	7	2	535	25	19	34	0	2	78	17	12	4	0	0	33	1010
Hourly Total	72	1357	70	1	19	1500	242	1889	81	13	8	2225	107	93	135	5	15	340	66	53	36	0	8	155	4220
6:00 PM	15	349	16	1	5	381	68	367	18	0	3	453	25	28	29	1	1	83	7	11	12	0	0	30	947
6:15 PM	29	347	14	0	8	390	47	426	12	0	0	485	22	17	31	1	4	71	12	9	17	0	1	38	984
6:30 PM	19	369	17	0	6	405	43	345	21	2	0	411	21	7	25	3	1	56	10	13	13	0	0	36	908
6:45 PM	5	97	8	0	0	110	18	134	3	0	2	155	12	7	10	0	0	29	1	1	5	0	1	7	301
Hourly Total	68	1162	55	1	19	1286	176	1272	54	2	5	1504	80	59	95	5	6	239	30	34	47	0	2	111	3140
Grand Total	418	11135	357	27	120	11937	1307	10149	397	31	28	11884	575	368	956	31	68	1930	405	375	390	1	21	1171	26922
Approach %	3.5	93.3	3.0	0.2	-	-	11.0	85.4	3.3	0.3	-	-	29.8	19.1	49.5	1.6	-	-	34.6	32.0	33.3	0.1	-	-	-
Total %	1.6	41.4	1.3	0.1	-	44.3	4.9	37.7	1.5	0.1	-	44.1	2.1	1.4	3.6	0.1	-	7.2	1.5	1.4	1.4	0.0	-	4.3	-
Motorcycles	1	17	1	0	-	19	2	13	0	0	-	15	1	0	0	0	-	1	0	0	1	0	-	1	36
% Motorcycles	0.2	0.2	0.3	0.0	-	0.2	0.2	0.1	0.0	0.0	-	0.1	0.2	0.0	0.0	0.0	-	0.1	0.0	0.0	0.3	0.0	-	0.1	0.1
Cars & Light Goods	403	10678	328	27	-	11436	1292	9452	367	30	-	11141	565	363	943	31	-	1902	394	366	368	1	-	1129	25608
% Cars & Light Goods	96.4	95.9	91.9	100.0	-	95.8	98.9	93.1	92.4	96.8	-	93.7	98.3	98.6	98.6	100.0	-	98.5	97.3	97.6	94.4	100.0	-	96.4	95.1
Buses	6	79	22	0	-	107	0	60	6	1	-	67	3	3	4	0	-	10	1	6	10	0	-	17	201
% Buses	1.4	0.7	6.2	0.0	-	0.9	0.0	0.6	1.5	3.2	-	0.6	0.5	0.8	0.4	0.0	-	0.5	0.2	1.6	2.6	0.0	-	1.5	0.7
Single-Unit Trucks	8	235	5	0	-	248	10	365	24	0	-	399	5	2	9	0	-	16	10	2	10	0	-	22	685
% Single-Unit Trucks	1.9	2.1	1.4	0.0	-	2.1	0.8	3.6	6.0	0.0	-	3.4	0.9	0.5	0.9	0.0	-	0.8	2.5	0.5	2.6	0.0	-	1.9	2.5
Articulated Trucks	0	125	1	0	-	126	3	259	0	0	-	262	1	0	0	0	-	1	0	0	1	0	-	1	390
% Articulated Trucks	0.0	1.1	0.3	0.0	-	1.1	0.2	2.6	0.0	0.0	-	2.2	0.2	0.0	0.0	0.0	-	0.1	0.0	0.0	0.3	0.0	-	0.1	1.4
Bicycles on Road	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	2
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.3	0.0	0.0	-	0.1	0.0
Bicycles on Crosswalk	-	-	-	-	8	-	-	-	-	-	2	-	-	-	-	-	12	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	6.7	-	-	-	-	-	7.1	-	-	-	-	-	17.6	-	-	-	-	-	4.8	-	-
Pedestrians	-	-	-	-	112	-	-	-	-	-	26	-	-	-	-	-	56	-	-	-	-	-	20	-	-
% Pedestrians	-	-	-	-	93.3	-	-	-	-	-	92.9	-	-	-	-	-	82.4	-	-	-	-	-	95.2	-	-

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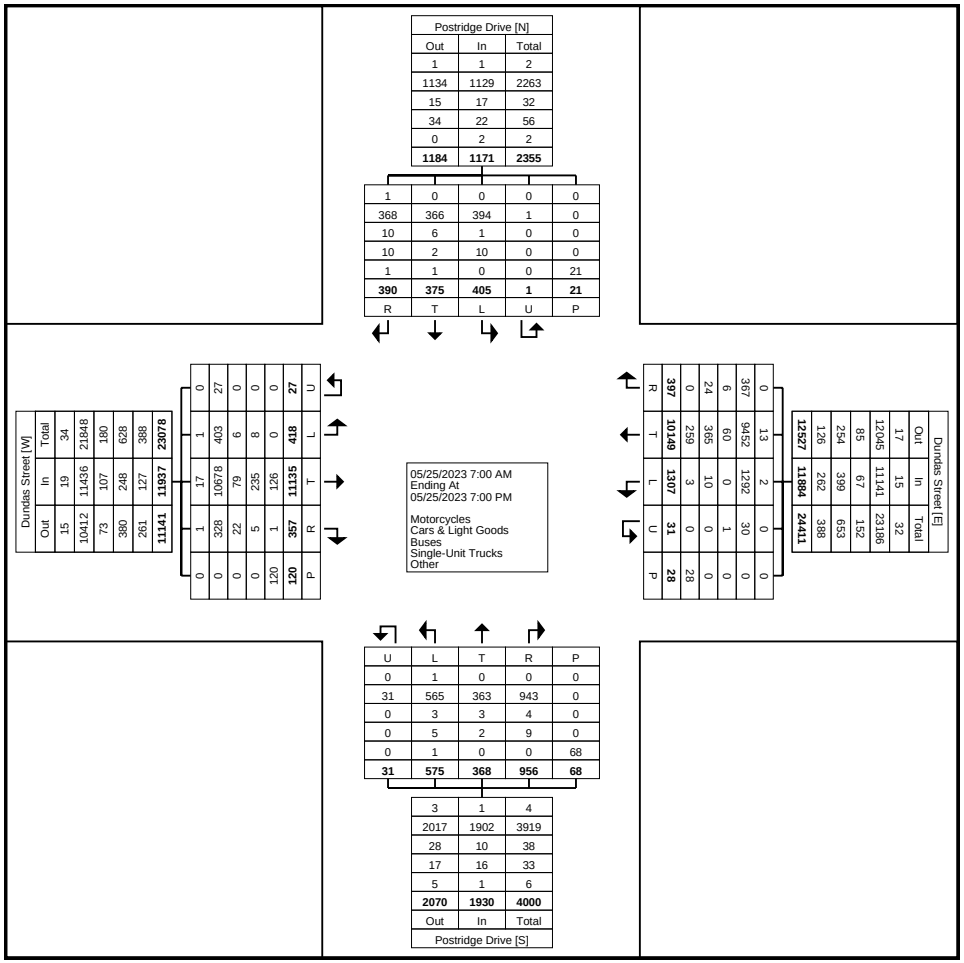


Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Dundas Street & Postridge Drive
Site Code: 220208
Start Date: 05/25/2023

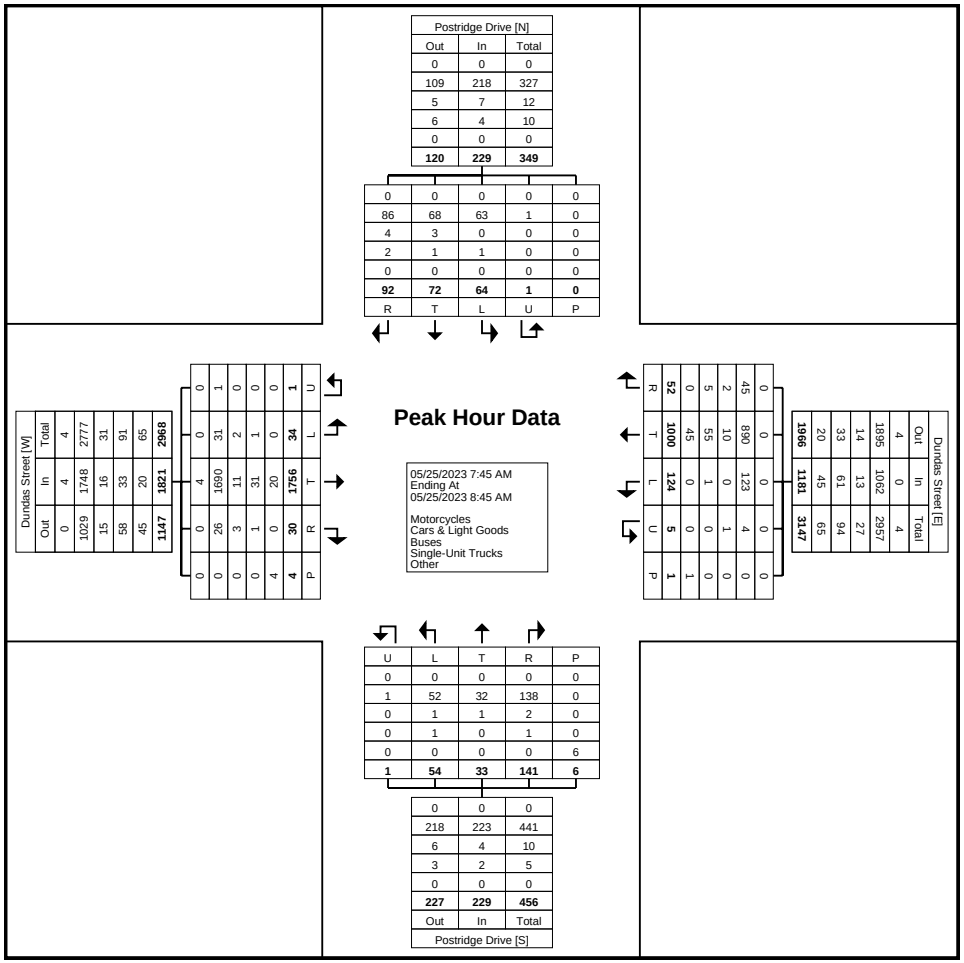
Turning Movement Peak Hour Data (7:45 AM)

Start Time	Dundas Street Eastbound						Dundas Street Westbound						Postridge Drive Northbound						Postridge Drive Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:45 AM	4	541	5	0	0	550	24	220	10	1	0	255	12	3	30	0	2	45	14	16	22	0	0	52	902
8:00 AM	9	410	9	0	1	428	25	222	15	0	0	262	16	5	36	0	0	57	9	14	25	0	0	48	795
8:15 AM	10	407	8	1	0	426	42	307	14	1	1	364	13	12	42	1	2	68	15	25	21	0	0	61	919
8:30 AM	11	398	8	0	3	417	33	251	13	3	0	300	13	13	33	0	2	59	26	17	24	1	0	68	844
Total	34	1756	30	1	4	1821	124	1000	52	5	1	1181	54	33	141	1	6	229	64	72	92	1	0	229	3460
Approach %	1.9	96.4	1.6	0.1	-	-	10.5	84.7	4.4	0.4	-	-	23.6	14.4	61.6	0.4	-	-	27.9	31.4	40.2	0.4	-	-	-
Total %	1.0	50.8	0.9	0.0	-	52.6	3.6	28.9	1.5	0.1	-	34.1	1.6	1.0	4.1	0.0	-	6.6	1.8	2.1	2.7	0.0	-	6.6	-
PHF	0.773	0.811	0.833	0.250	-	0.828	0.738	0.814	0.867	0.417	-	0.811	0.844	0.635	0.839	0.250	-	0.842	0.615	0.720	0.920	0.250	-	0.842	0.941
Motorcycles	0	4	0	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	4
% Motorcycles	0.0	0.2	0.0	0.0	-	0.2	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.1
Cars & Light Goods	31	1690	26	1	-	1748	123	890	45	4	-	1062	52	32	138	1	-	223	63	68	86	1	-	218	3251
% Cars & Light Goods	91.2	96.2	86.7	100.0	-	96.0	99.2	89.0	86.5	80.0	-	89.9	96.3	97.0	97.9	100.0	-	97.4	98.4	94.4	93.5	100.0	-	95.2	94.0
Buses	2	11	3	0	-	16	0	10	2	1	-	13	1	1	2	0	-	4	0	3	4	0	-	7	40
% Buses	5.9	0.6	10.0	0.0	-	0.9	0.0	1.0	3.8	20.0	-	1.1	1.9	3.0	1.4	0.0	-	1.7	0.0	4.2	4.3	0.0	-	3.1	1.2
Single-Unit Trucks	1	31	1	0	-	33	1	55	5	0	-	61	1	0	1	0	-	2	1	1	2	0	-	4	100
% Single-Unit Trucks	2.9	1.8	3.3	0.0	-	1.8	0.8	5.5	9.6	0.0	-	5.2	1.9	0.0	0.7	0.0	-	0.9	1.6	1.4	2.2	0.0	-	1.7	2.9
Articulated Trucks	0	20	0	0	-	20	0	45	0	0	-	45	0	0	0	0	-	0	0	0	0	0	-	0	65
% Articulated Trucks	0.0	1.1	0.0	0.0	-	1.1	0.0	4.5	0.0	0.0	-	3.8	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	1.9
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	33.3	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	4	-	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	66.7	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Dundas Street & Postridge Drive
Site Code: 220208
Start Date: 05/25/2023



Turning Movement Peak Hour Data Plot (7:45 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Dundas Street & Postridge Drive
Site Code: 220208
Start Date: 05/25/2023

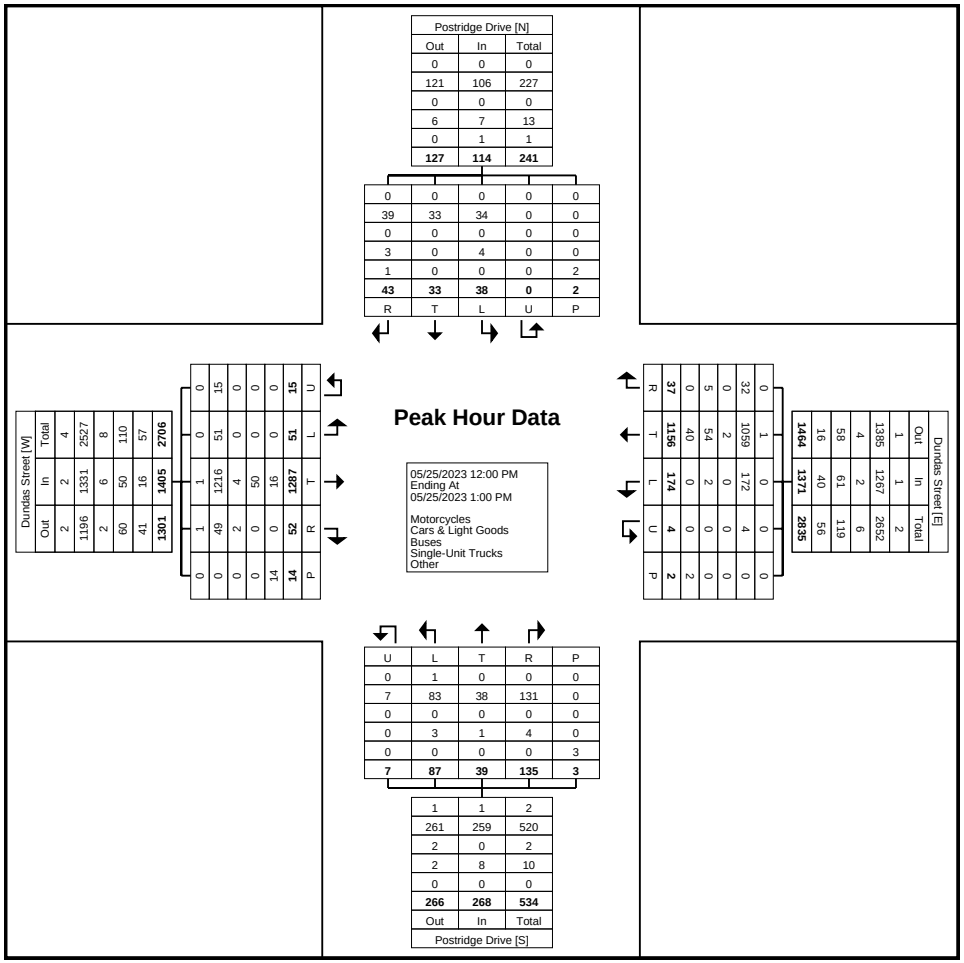
Turning Movement Peak Hour Data (12:00 PM)

Start Time	Dundas Street Eastbound						Dundas Street Westbound						Postridge Drive Northbound						Postridge Drive Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
12:00 PM	11	328	17	4	2	360	47	280	7	1	0	335	23	5	48	2	0	78	13	14	12	0	0	39	812
12:15 PM	13	345	13	7	4	378	53	272	10	0	0	335	25	13	30	1	2	69	12	11	9	0	1	32	814
12:30 PM	13	282	13	2	5	310	33	290	12	3	1	338	21	14	23	3	1	61	8	6	10	0	0	24	733
12:45 PM	14	332	9	2	3	357	41	314	8	0	1	363	18	7	34	1	0	60	5	2	12	0	1	19	799
Total	51	1287	52	15	14	1405	174	1156	37	4	2	1371	87	39	135	7	3	268	38	33	43	0	2	114	3158
Approach %	3.6	91.6	3.7	1.1	-	-	12.7	84.3	2.7	0.3	-	-	32.5	14.6	50.4	2.6	-	-	33.3	28.9	37.7	0.0	-	-	-
Total %	1.6	40.8	1.6	0.5	-	44.5	5.5	36.6	1.2	0.1	-	43.4	2.8	1.2	4.3	0.2	-	8.5	1.2	1.0	1.4	0.0	-	3.6	-
PHF	0.911	0.933	0.765	0.536	-	0.929	0.821	0.920	0.771	0.333	-	0.944	0.870	0.696	0.703	0.583	-	0.859	0.731	0.589	0.896	0.000	-	0.731	0.970
Motorcycles	0	1	1	0	-	2	0	1	0	0	-	1	1	0	0	0	-	1	0	0	0	0	-	0	4
% Motorcycles	0.0	0.1	1.9	0.0	-	0.1	0.0	0.1	0.0	0.0	-	0.1	1.1	0.0	0.0	0.0	-	0.4	0.0	0.0	0.0	-	-	0.0	0.1
Cars & Light Goods	51	1216	49	15	-	1331	172	1059	32	4	-	1267	83	38	131	7	-	259	34	33	39	0	-	106	2963
% Cars & Light Goods	100.0	94.5	94.2	100.0	-	94.7	98.9	91.6	86.5	100.0	-	92.4	95.4	97.4	97.0	100.0	-	96.6	89.5	100.0	90.7	-	-	93.0	93.8
Buses	0	4	2	0	-	6	0	2	0	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	8
% Buses	0.0	0.3	3.8	0.0	-	0.4	0.0	0.2	0.0	0.0	-	0.1	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.3
Single-Unit Trucks	0	50	0	0	-	50	2	54	5	0	-	61	3	1	4	0	-	8	4	0	3	0	-	7	126
% Single-Unit Trucks	0.0	3.9	0.0	0.0	-	3.6	1.1	4.7	13.5	0.0	-	4.4	3.4	2.6	3.0	0.0	-	3.0	10.5	0.0	7.0	-	-	6.1	4.0
Articulated Trucks	0	16	0	0	-	16	0	40	0	0	-	40	0	0	0	0	-	0	0	0	1	0	-	1	57
% Articulated Trucks	0.0	1.2	0.0	0.0	-	1.1	0.0	3.5	0.0	0.0	-	2.9	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	2.3	-	-	0.9	1.8
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	7.1	-	-	-	-	-	0.0	-	-	-	-	-	33.3	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	13	-	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	92.9	-	-	-	-	-	100.0	-	-	-	-	-	66.7	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Dundas Street & Postridge Drive
Site Code: 220208
Start Date: 05/25/2023



Turning Movement Peak Hour Data Plot (12:00 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Dundas Street & Postridge Drive
Site Code: 220208
Start Date: 05/25/2023

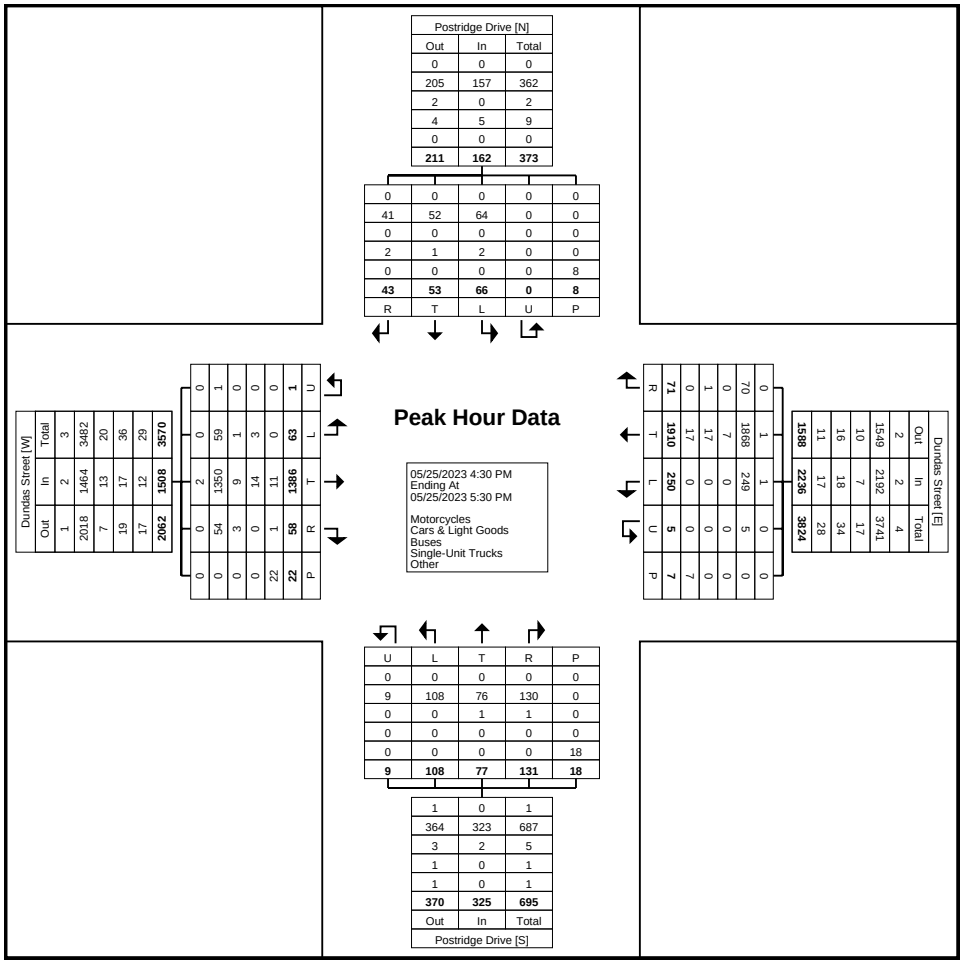
Turning Movement Peak Hour Data (4:30 PM)

Start Time	Dundas Street Eastbound						Dundas Street Westbound						Postridge Drive Northbound						Postridge Drive Southbound						
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Int. Total
4:30 PM	16	348	11	0	7	375	61	473	8	0	0	542	27	13	36	3	6	79	15	16	14	0	0	45	1041
4:45 PM	15	359	13	0	8	387	51	448	20	0	5	519	21	15	34	2	2	72	18	14	6	0	1	38	1016
5:00 PM	12	317	15	1	3	345	71	475	21	1	1	568	26	24	42	3	4	95	15	10	16	0	6	41	1049
5:15 PM	20	362	19	0	4	401	67	514	22	4	1	607	34	25	19	1	6	79	18	13	7	0	1	38	1125
Total	63	1386	58	1	22	1508	250	1910	71	5	7	2236	108	77	131	9	18	325	66	53	43	0	8	162	4231
Approach %	4.2	91.9	3.8	0.1	-	-	11.2	85.4	3.2	0.2	-	-	33.2	23.7	40.3	2.8	-	-	40.7	32.7	26.5	0.0	-	-	-
Total %	1.5	32.8	1.4	0.0	-	35.6	5.9	45.1	1.7	0.1	-	52.8	2.6	1.8	3.1	0.2	-	7.7	1.6	1.3	1.0	0.0	-	3.8	-
PHF	0.788	0.957	0.763	0.250	-	0.940	0.880	0.929	0.807	0.313	-	0.921	0.794	0.770	0.780	0.750	-	0.855	0.917	0.828	0.672	0.000	-	0.900	0.940
Motorcycles	0	2	0	0	-	2	1	1	0	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	4
% Motorcycles	0.0	0.1	0.0	0.0	-	0.1	0.4	0.1	0.0	0.0	-	0.1	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.1
Cars & Light Goods	59	1350	54	1	-	1464	249	1868	70	5	-	2192	108	76	130	9	-	323	64	52	41	0	-	157	4136
% Cars & Light Goods	93.7	97.4	93.1	100.0	-	97.1	99.6	97.8	98.6	100.0	-	98.0	100.0	98.7	99.2	100.0	-	99.4	97.0	98.1	95.3	-	-	96.9	97.8
Buses	1	9	3	0	-	13	0	7	0	0	-	7	0	1	1	0	-	2	0	0	0	0	-	0	22
% Buses	1.6	0.6	5.2	0.0	-	0.9	0.0	0.4	0.0	0.0	-	0.3	0.0	1.3	0.8	0.0	-	0.6	0.0	0.0	0.0	-	-	0.0	0.5
Single-Unit Trucks	3	14	0	0	-	17	0	17	1	0	-	18	0	0	0	0	-	0	2	1	2	0	-	5	40
% Single-Unit Trucks	4.8	1.0	0.0	0.0	-	1.1	0.0	0.9	1.4	0.0	-	0.8	0.0	0.0	0.0	0.0	-	0.0	3.0	1.9	4.7	-	-	3.1	0.9
Articulated Trucks	0	11	1	0	-	12	0	17	0	0	-	17	0	0	0	0	-	0	0	0	0	0	-	0	29
% Articulated Trucks	0.0	0.8	1.7	0.0	-	0.8	0.0	0.9	0.0	0.0	-	0.8	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.7
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	9.1	-	-	-	-	-	0.0	-	-	-	-	-	16.7	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	20	-	-	-	-	-	7	-	-	-	-	-	15	-	-	-	-	-	8	-	-
% Pedestrians	-	-	-	-	90.9	-	-	-	-	-	100.0	-	-	-	-	-	83.3	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Dundas Street & Postridge Drive
Site Code: 220208
Start Date: 05/25/2023



Turning Movement Peak Hour Data Plot (4:30 PM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Threshing Mill Blvd & William Coltson Avenue
Site Code: 220208
Start Date: 12/01/2022

Turning Movement Data

Start Time	Threshing Mill Blvd Eastbound						Threshing Mill Blvd Westbound						Construction Site Northbound						William Coltson Avenue Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
7:00 AM	15	6	4	0	3	25	3	12	10	0	1	25	1	0	0	0	0	1	1	0	2	0	1	3	54
7:15 AM	9	7	2	0	2	18	2	20	7	0	0	29	1	0	0	0	1	1	3	0	3	1	0	7	55
7:30 AM	1	11	4	0	3	16	2	18	6	0	0	26	0	0	0	0	0	0	3	1	1	0	0	5	47
7:45 AM	2	19	3	0	1	24	2	22	0	0	0	24	0	2	0	0	0	2	4	1	4	0	0	9	59
Hourly Total	27	43	13	0	9	83	9	72	23	0	1	104	2	2	0	0	1	4	11	2	10	1	1	24	215
8:00 AM	5	22	1	0	0	28	1	13	3	0	0	17	0	0	0	0	0	0	5	0	5	0	0	10	55
8:15 AM	8	21	0	0	0	29	2	21	5	0	0	28	3	0	0	0	0	3	5	0	11	0	0	16	76
8:30 AM	8	18	0	0	0	26	0	30	7	0	3	37	1	0	0	0	0	1	9	0	2	0	0	11	75
8:45 AM	7	19	2	0	0	28	0	16	4	0	1	20	1	0	1	0	0	2	6	1	5	0	0	12	62
Hourly Total	28	80	3	0	0	111	3	80	19	0	4	102	5	0	1	0	0	6	25	1	23	0	0	49	268
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	3	3	1	0	1	7	1	9	4	0	0	14	0	0	1	0	0	1	1	0	7	0	0	8	30
11:15 AM	4	5	0	0	0	9	0	8	3	0	0	11	0	0	0	0	0	0	3	0	3	0	0	6	26
11:30 AM	0	7	2	0	1	9	1	11	4	0	2	16	2	0	1	0	1	3	2	0	0	0	0	2	30
11:45 AM	6	6	0	0	0	12	1	16	1	0	1	18	4	0	0	0	1	4	1	0	3	0	0	4	38
Hourly Total	13	21	3	0	2	37	3	44	12	0	3	59	6	0	2	0	2	8	7	0	13	0	0	20	124
12:00 PM	5	4	2	0	1	11	0	8	5	0	1	13	1	0	1	0	0	2	6	0	9	0	0	15	41
12:15 PM	8	5	0	1	0	14	0	12	1	0	2	13	0	0	1	0	0	1	3	0	9	0	0	12	40
12:30 PM	5	8	4	0	0	17	0	13	4	0	2	17	2	0	0	0	0	2	2	0	6	0	0	8	44
12:45 PM	4	8	0	0	0	12	0	9	2	0	0	11	2	0	0	0	0	2	2	0	6	0	0	8	33
Hourly Total	22	25	6	1	1	54	0	42	12	0	5	54	5	0	2	0	0	7	13	0	30	0	0	43	158
1:00 PM	1	4	1	0	0	6	0	10	4	0	1	14	0	0	0	0	0	0	4	1	5	1	0	11	31
1:15 PM	1	9	1	1	0	12	0	14	4	1	1	19	3	0	1	0	0	4	2	0	7	0	0	9	44
1:30 PM	5	6	0	0	0	11	0	10	4	0	0	14	1	0	3	0	0	4	1	0	6	0	0	7	36
1:45 PM	7	4	0	0	0	11	1	7	4	0	0	12	1	1	0	0	0	2	3	0	6	0	0	9	34
Hourly Total	14	23	2	1	0	40	1	41	16	1	2	59	5	1	4	0	0	10	10	1	24	1	0	36	145
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	3	8	0	0	0	11	0	16	4	0	0	20	0	0	2	0	0	2	6	1	14	0	0	21	54
3:15 PM	4	23	0	1	0	28	1	36	5	0	0	42	2	0	1	0	0	3	17	0	27	0	0	44	117
3:30 PM	3	18	0	0	1	21	0	36	4	0	0	40	0	0	1	0	0	1	9	0	15	0	0	24	86
3:45 PM	6	24	0	0	0	30	0	47	3	0	0	50	5	0	1	0	0	6	7	0	10	0	0	17	103
Hourly Total	16	73	0	1	1	90	1	135	16	0	0	152	7	0	5	0	0	12	39	1	66	0	0	106	360
4:00 PM	6	17	0	0	0	23	0	53	8	0	1	61	1	0	3	0	0	4	3	0	12	0	0	15	103
4:15 PM	3	12	1	0	0	16	1	47	6	0	0	54	4	0	0	0	0	4	3	0	17	0	0	20	94
4:30 PM	7	11	0	0	0	18	0	45	1	0	0	46	3	0	0	0	0	3	4	0	9	0	0	13	80

4:45 PM	5	11	1	0	0	17	0	47	1	0	0	48	2	0	0	0	0	2	4	0	4	0	0	8	75
Hourly Total	21	51	2	0	0	74	1	192	16	0	1	209	10	0	3	0	0	13	14	0	42	0	0	56	352
5:00 PM	4	16	0	0	0	20	0	41	4	0	0	45	2	0	0	0	0	2	6	0	4	0	0	10	77
5:15 PM	2	12	0	0	0	14	0	46	4	0	0	50	1	0	1	0	0	2	4	0	3	0	0	7	73
5:30 PM	1	9	0	0	0	10	0	32	4	0	0	36	0	0	1	0	0	1	2	0	5	0	0	7	54
5:45 PM	3	18	0	0	0	21	0	27	5	0	0	32	0	0	0	0	0	0	3	0	3	0	0	6	59
Hourly Total	10	55	0	0	0	65	0	146	17	0	0	163	3	0	2	0	0	5	15	0	15	0	0	30	263
Grand Total	151	371	29	3	13	554	18	752	131	1	16	902	43	3	19	0	3	65	134	5	223	2	1	364	1885
Approach %	27.3	67.0	5.2	0.5	-	-	2.0	83.4	14.5	0.1	-	-	66.2	4.6	29.2	0.0	-	-	36.8	1.4	61.3	0.5	-	-	-
Total %	8.0	19.7	1.5	0.2	-	29.4	1.0	39.9	6.9	0.1	-	47.9	2.3	0.2	1.0	0.0	-	3.4	7.1	0.3	11.8	0.1	-	19.3	-
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Cars & Light Goods	122	339	27	2	-	490	18	686	126	1	-	831	39	1	19	0	-	59	129	2	199	2	-	332	1712
% Cars & Light Goods	80.8	91.4	93.1	66.7	-	88.4	100.0	91.2	96.2	100.0	-	92.1	90.7	33.3	100.0	-	-	90.8	96.3	40.0	89.2	100.0	-	91.2	90.8
Buses	2	5	0	0	-	7	0	13	0	0	-	13	0	0	0	0	-	0	1	0	1	0	-	2	22
% Buses	1.3	1.3	0.0	0.0	-	1.3	0.0	1.7	0.0	0.0	-	1.4	0.0	0.0	0.0	-	-	0.0	0.7	0.0	0.4	0.0	-	0.5	1.2
Single-Unit Trucks	25	24	1	0	-	50	0	51	4	0	-	55	4	2	0	0	-	6	4	3	19	0	-	26	137
% Single-Unit Trucks	16.6	6.5	3.4	0.0	-	9.0	0.0	6.8	3.1	0.0	-	6.1	9.3	66.7	0.0	-	-	9.2	3.0	60.0	8.5	0.0	-	7.1	7.3
Articulated Trucks	2	3	1	1	-	7	0	2	1	0	-	3	0	0	0	0	-	0	0	0	4	0	-	4	14
% Articulated Trucks	1.3	0.8	3.4	33.3	-	1.3	0.0	0.3	0.8	0.0	-	0.3	0.0	0.0	0.0	-	-	0.0	0.0	0.0	1.8	0.0	-	1.1	0.7
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	13	-	-	-	-	-	16	-	-	-	-	-	3	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

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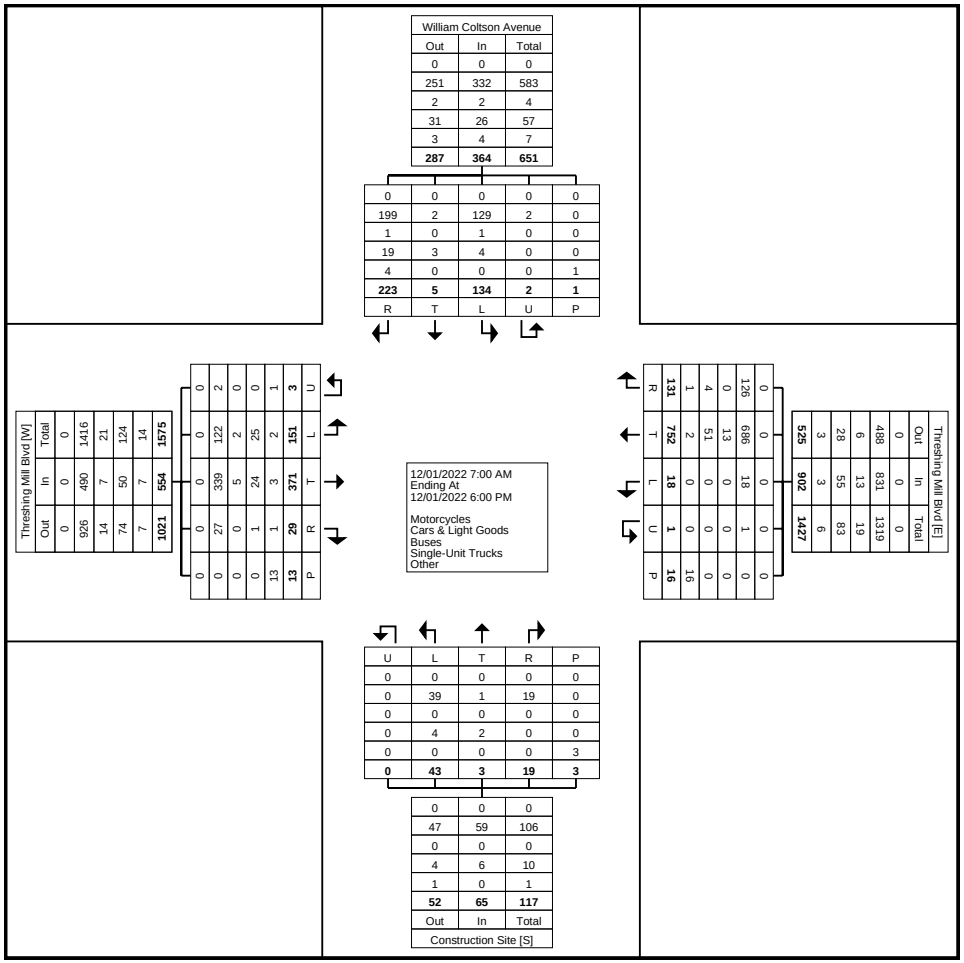
Site Code: 220208
Start Date: 12/01/2022



Turning Movement Data Plot

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Threshing Mill Blvd & William Coltson Avenue
Site Code: 220208
Start Date: 12/01/2022

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Threshing Mill Blvd Eastbound						Threshing Mill Blvd Westbound						Construction Site Northbound						William Coltson Avenue Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
8:00 AM	5	22	1	0	0	28	1	13	3	0	0	17	0	0	0	0	0	0	5	0	5	0	0	10	55
8:15 AM	8	21	0	0	0	29	2	21	5	0	0	28	3	0	0	0	0	3	5	0	11	0	0	16	76
8:30 AM	8	18	0	0	0	26	0	30	7	0	3	37	1	0	0	0	0	1	9	0	2	0	0	11	75
8:45 AM	7	19	2	0	0	28	0	16	4	0	1	20	1	0	1	0	0	2	6	1	5	0	0	12	62
Total	28	80	3	0	0	111	3	80	19	0	4	102	5	0	1	0	0	6	25	1	23	0	0	49	268
Approach %	25.2	72.1	2.7	0.0	-	-	2.9	78.4	18.6	0.0	-	-	83.3	0.0	16.7	0.0	-	-	51.0	2.0	46.9	0.0	-	-	-
Total %	10.4	29.9	1.1	0.0	-	41.4	1.1	29.9	7.1	0.0	-	38.1	1.9	0.0	0.4	0.0	-	2.2	9.3	0.4	8.6	0.0	-	18.3	-
PHF	0.875	0.909	0.375	0.000	-	0.957	0.375	0.667	0.679	0.000	-	0.689	0.417	0.000	0.250	0.000	-	0.500	0.694	0.250	0.523	0.000	-	0.766	0.882
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	21	76	2	0	-	99	3	74	19	0	-	96	4	0	1	0	-	5	23	0	21	0	-	44	244
% Cars & Light Goods	75.0	95.0	66.7	-	-	89.2	100.0	92.5	100.0	-	-	94.1	80.0	-	100.0	-	-	83.3	92.0	0.0	91.3	-	-	89.8	91.0
Buses	1	1	0	0	-	2	0	3	0	0	-	3	0	0	0	0	-	0	1	0	0	0	-	1	6
% Buses	3.6	1.3	0.0	-	-	1.8	0.0	3.8	0.0	-	-	2.9	0.0	-	0.0	-	-	0.0	4.0	0.0	0.0	-	-	2.0	2.2
Single-Unit Trucks	6	3	1	0	-	10	0	3	0	0	-	3	1	0	0	0	-	1	1	1	2	0	-	4	18
% Single-Unit Trucks	21.4	3.8	33.3	-	-	9.0	0.0	3.8	0.0	-	-	2.9	20.0	-	0.0	-	-	16.7	4.0	100.0	8.7	-	-	8.2	6.7
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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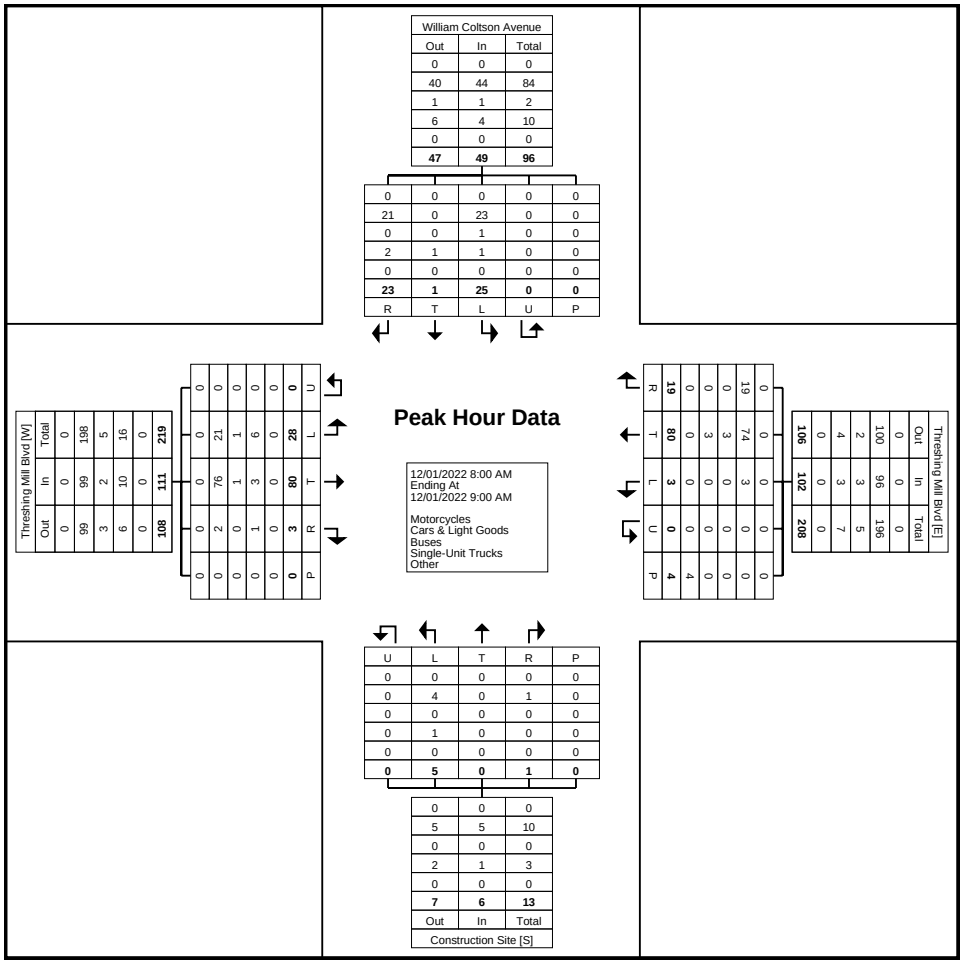

Turning Movement Peak Hour Data Plot (8:00 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Threshing Mill Blvd & William Coltson Avenue
Site Code: 220208
Start Date: 12/01/2022

Turning Movement Peak Hour Data (11:45 AM)

Start Time	Threshing Mill Blvd Eastbound						Threshing Mill Blvd Westbound						Construction Site Northbound						William Coltson Avenue Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
11:45 AM	6	6	0	0	0	12	1	16	1	0	1	18	4	0	0	0	1	4	1	0	3	0	0	4	38
12:00 PM	5	4	2	0	1	11	0	8	5	0	1	13	1	0	1	0	0	2	6	0	9	0	0	15	41
12:15 PM	8	5	0	1	0	14	0	12	1	0	2	13	0	0	1	0	0	1	3	0	9	0	0	12	40
12:30 PM	5	8	4	0	0	17	0	13	4	0	2	17	2	0	0	0	0	2	2	0	6	0	0	8	44
Total	24	23	6	1	1	54	1	49	11	0	6	61	7	0	2	0	1	9	12	0	27	0	0	39	163
Approach %	44.4	42.6	11.1	1.9	-	-	1.6	80.3	18.0	0.0	-	-	77.8	0.0	22.2	0.0	-	-	30.8	0.0	69.2	0.0	-	-	-
Total %	14.7	14.1	3.7	0.6	-	33.1	0.6	30.1	6.7	0.0	-	37.4	4.3	0.0	1.2	0.0	-	5.5	7.4	0.0	16.6	0.0	-	23.9	-
PHF	0.750	0.719	0.375	0.250	-	0.794	0.250	0.766	0.550	0.000	-	0.847	0.438	0.000	0.500	0.000	-	0.563	0.500	0.000	0.750	0.000	-	0.650	0.926
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Cars & Light Goods	21	18	6	0	-	45	1	39	10	0	-	50	7	0	2	0	-	9	11	0	23	0	-	34	138
% Cars & Light Goods	87.5	78.3	100.0	0.0	-	83.3	100.0	79.6	90.9	-	-	82.0	100.0	-	100.0	-	-	100.0	91.7	-	85.2	-	-	87.2	84.7
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Single-Unit Trucks	2	5	0	0	-	7	0	9	0	0	-	9	0	0	0	0	-	0	1	0	1	0	-	2	18
% Single-Unit Trucks	8.3	21.7	0.0	0.0	-	13.0	0.0	18.4	0.0	-	-	14.8	0.0	-	0.0	-	-	0.0	8.3	-	3.7	-	-	5.1	11.0
Articulated Trucks	1	0	0	1	-	2	0	1	1	0	-	2	0	0	0	0	-	0	0	0	3	0	-	3	7
% Articulated Trucks	4.2	0.0	0.0	100.0	-	3.7	0.0	2.0	9.1	-	-	3.3	0.0	-	0.0	-	-	0.0	0.0	-	11.1	-	-	7.7	4.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	6	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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519-896-3163 cbowness@ptsl.com

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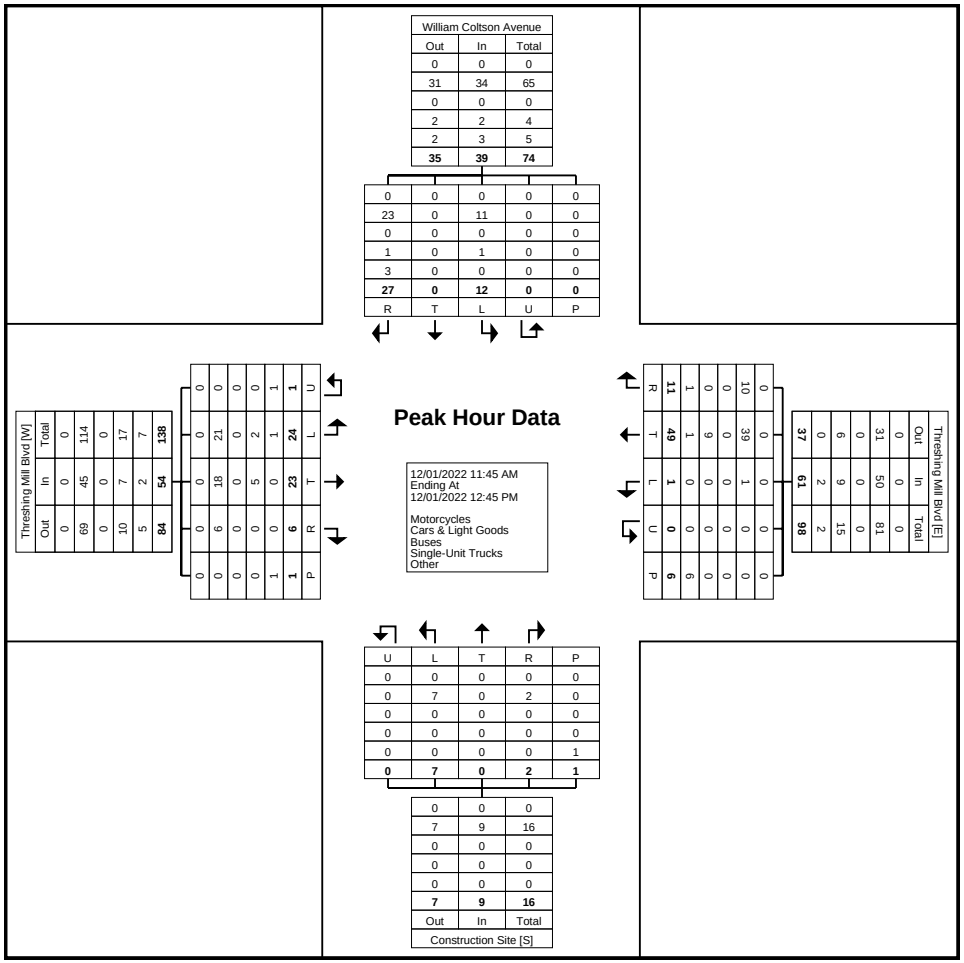
Site Code: 220208
Start Date: 12/01/2022



Turning Movement Peak Hour Data Plot (11:45 AM)

Paradigm Transportation Solutions Limited
5A-150 Pinebush Rd

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

Count Name: Threshing Mill Blvd & William Coltson Avenue
Site Code: 220208
Start Date: 12/01/2022

Turning Movement Peak Hour Data (3:15 PM)

Start Time	Threshing Mill Blvd Eastbound						Threshing Mill Blvd Westbound						Construction Site Northbound						William Coltson Avenue Southbound						Int. Total
	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	Left	Thru	Right	U-Turn	Peds	App. Total	
3:15 PM	4	23	0	1	0	28	1	36	5	0	0	42	2	0	1	0	0	3	17	0	27	0	0	44	117
3:30 PM	3	18	0	0	1	21	0	36	4	0	0	40	0	0	1	0	0	1	9	0	15	0	0	24	86
3:45 PM	6	24	0	0	0	30	0	47	3	0	0	50	5	0	1	0	0	6	7	0	10	0	0	17	103
4:00 PM	6	17	0	0	0	23	0	53	8	0	1	61	1	0	3	0	0	4	3	0	12	0	0	15	103
Total	19	82	0	1	1	102	1	172	20	0	1	193	8	0	6	0	0	14	36	0	64	0	0	100	409
Approach %	18.6	80.4	0.0	1.0	-	-	0.5	89.1	10.4	0.0	-	-	57.1	0.0	42.9	0.0	-	-	36.0	0.0	64.0	0.0	-	-	-
Total %	4.6	20.0	0.0	0.2	-	24.9	0.2	42.1	4.9	0.0	-	47.2	2.0	0.0	1.5	0.0	-	3.4	8.8	0.0	15.6	0.0	-	24.4	-
PHF	0.792	0.854	0.000	0.250	-	0.850	0.250	0.811	0.625	0.000	-	0.791	0.400	0.000	0.500	0.000	-	0.583	0.529	0.000	0.593	0.000	-	0.568	0.874
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Cars & Light Goods	15	75	0	1	-	91	1	153	20	0	-	174	8	0	6	0	-	14	36	0	61	0	-	97	376
% Cars & Light Goods	78.9	91.5	-	100.0	-	89.2	100.0	89.0	100.0	-	-	90.2	100.0	-	100.0	-	-	100.0	100.0	-	95.3	-	-	97.0	91.9
Buses	0	1	0	0	-	1	0	6	0	0	-	6	0	0	0	0	-	0	0	0	0	0	-	0	7
% Buses	0.0	1.2	-	0.0	-	1.0	0.0	3.5	0.0	-	-	3.1	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	1.7
Single-Unit Trucks	4	6	0	0	-	10	0	13	0	0	-	13	0	0	0	0	-	0	0	0	3	0	-	3	26
% Single-Unit Trucks	21.1	7.3	-	0.0	-	9.8	0.0	7.6	0.0	-	-	6.7	0.0	-	0.0	-	-	0.0	0.0	-	4.7	-	-	3.0	6.4
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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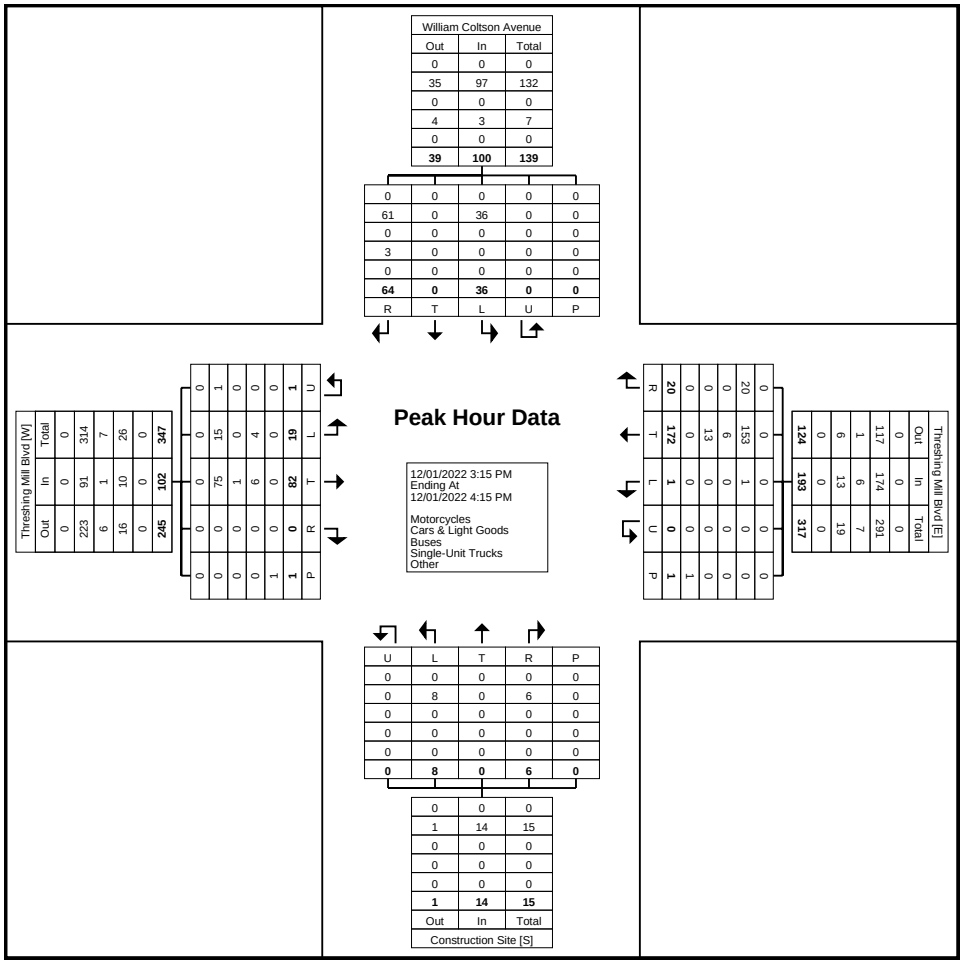

Turning Movement Peak Hour Data Plot (3:15 PM)

Town of Oakville

ECONOLITE

MOVING TRAFFIC FORWARD

REG5107 - Trafalgar Rd @ William Halton Pkwy - Econolite Type - Cobalt

Configuration Controller Sequence

Phase Ring Sequence and Assignment (MM) 1-1-1

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B		B		B							
Sequence 1																
Ring 1	1	2	3	4	9	10	11	12	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	13	14	15	16	.	.	.	.	.	.	.	.
Sequence 2																
Ring 1	2	1	3	4	10	9	11	12	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	13	14	15	16	.	.	.	.	.	.	.	.
Sequence 3																
Ring 1	1	2	3	4	9	10	11	12	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	13	14	15	16	.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use	X	X	X	X	X	X	X	X								
Exclusive Ped																

Phase Compatibility (MM) 1-1-2

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Approach	S	N	W	E	N	S	E	W	N	N	N	N	N	N	N	N
Movement	L	TR	L	TR	L	TR	L	TR								
Associated PED		X		X		X		X								
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**
Approach	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Movement																

Administration (MM) 1-7-1

Enable Controller/Cabinet Interlock CRC	No
CRC (16 bit)	8C50
Enable Automatic Backup to Datakey	No

Backup Prevent (MM) 1-1-3

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing	**1**		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Phases	**2**	X		.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	X		.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	X		.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	X		.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

Simultaneous Gap (MM) 1-1-4

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
Phase	**6**	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
Must	**7**	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
Gap	**8**	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.
With	**9**	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
Phase	**10**	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
	Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	1	V				-	Auto	X		
2	2	V				-	Auto	X		X
3	3	V				-	Auto	X		
4	4	V				-	Auto	X		X
5	5	V				+	Auto	X		
6	6	V				+	Auto	X		X
7	7	V				+	Auto	X		
8	8	V				+	Auto	X		X
9	2	P				-	Auto			
10	4	P				-	Auto			
11	6	P				+	Auto			
12	8	P				+	Auto			
13	0	O				-	Auto	X		

14	0	O				+	Auto	X		X
15	0	O				-	Auto	X		
16	0	O				+	Auto	X		X

Town of Oakville

ECONOLITE

MOVING TRAFFIC FORWARD

REG5107 - Trafalgar Rd @ William Halton Pkwy - Econolite Type - Cobalt

Configuration Port 1 (SDLC)

Port 1 SDLC (MM) 1-4-1

BIU	1	2	3	4	5	6	7	8
Term & Facility	X	X						
Detector Rack		X						

Enable TS2/MMU Type Cabinet: No
Enable MMU Extended Status: Yes
Enable SDLC Stop Time: No
Enable 3 Critical RFE's Lockup: Yes

MMU Program (MM) 1-4-2

Channel Can Serve With Channel	
Channel 1	**Channel 2**

Color Check Enable (MM) 1-4-3

Enable Color Check: No

MMU/LS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Green																
Yellow																
Red																

Secondary Stations/Tests (MM) 1-4-4

ID	1	2	3	4	5	6	7	8	MMU
Term & Facility									

ID	1	2	3	4	5	6	7	8	Diag
Detector Rack									

Enable SDLC Diagnostic Test: No

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REG5107 - Trafalgar Rd @ William Halton Pkwy - Econolite Type - Cobalt

Configuration Logging / Display

Event Logging (MM) 1-6-1

Critical RFE's (MMU/TF)	Yes	3 Critical Errors Within 24 Hours	Yes
MMU Flash Faults	Yes	Local Flash Fault	Yes
Non-Critical RFE's (Det/Test)	Yes	Detector Errors	Yes
Coordination Errors	No	Controller Download	Yes
Preemption Events	Yes	TSP Events	Yes
Power On/Off	Yes	Low Battery	Yes
Access	Yes	Data Change	Yes
Online / Offline	Yes		

Alarm Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable Logging	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Display Options (MM) 1-7-2

Key Click Enable:	No
Switch to Graphics Mode:	No
LED Mode:	Auto
Display Mode:	Basic
Trans Mode Pop-Up Disable:	No

Sign On (MM) 8-5

Sign On Message Line 1: Dual Walk Term & Call Next Thru
Sign On Message Line 2:

Software Modules (MM) 8-7

Application Version: 32.67.20
OS (Boot) Version: 06.12.00

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REG5107 - Trafalgar Rd @ William Halton Pkwy - Econolite Type - Cobalt

Logic Processor Page 1

Logic Statement Control (MM) 1-8-1

Logic #	Statement Control

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MOVING TRAFFIC FORWARD

REG5107 - Trafalgar Rd @ William Halton Pkwy - Econolite Type - Cobalt

Controller Timing Plan (MM) 2-1

Plan 1 - ""

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Direction	**S-L**	**N-TR**	**W-L**	**E-TR**	**N-L**	**S-TR**	**E-L**	**W-TR**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
Min Green	7	20	7	20	7	20	7	20	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	7	0	7	0	7	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	29	0	24	0	29	0	24	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	3.0	5.0	3.0	5.0	3.0	5.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	15	60	12	40	15	60	12	40	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	4.6	3.0	3.7	3.0	4.6	3.0	3.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	0.0	2.3	0.0	3.3	0.0	2.3	0.0	3.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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REG5107 - Trafalgar Rd @ William Halton Pkwy - Econolite Type - Cobalt

Controller Overlaps

Vehicle Overlaps (MM) 2-2

Overlap	Type	Lag Green	Yellow	Red	Adv. Green

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	5	0	7	3.0	0.0	5
B02	5	0	7	3.0	0.0	5
C03	5	0	7	3.0	0.0	5
D04	5	0	7	3.0	0.0	5
E05	5	0	7	3.0	0.0	5
F06	5	0	7	3.0	0.0	5
G07	5	0	7	3.0	0.0	5
H08	5	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5

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Controller Start / Flash Data (MM) 2-5

Start Up

Phase	Phase Setting
1	.
2	Y
3	.
4	.
5	.
6	Y
7	.
8	.
9	.
10	.
11	.
12	.
13	.
14	.
15	.
16	.

Overlap

Flash Thru Mon: No
Flash Time: 0
All Red: 3
Power Start Seq: 1
MUTCD Enabled: No
Y->G: n/a

Automatic Flash

Entry
2
6

Exit
2
6

Overlap Exit

Flash Thru Mon: No
Exit Flash: W
Minimum Flash: 8
Mimimum Recall: No
Cycle Through Phase: No

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Controller Options

Controller Options (MM) 2-6-1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I		X				X										
Non-Act II				X				X								
Dual Entry		X		X		X		X								
Cond Service																
Cond Reservice																
Ped Re-Service		X				X										
Rest In Walk																
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: On Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed																

Phase Recall Options (MM) 2-8

Plan # 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall		X				X										
Ped Recall																
Max Recall																
Soft Recall																
No Rest																
AI Calc																

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Coordination Options

Options (MM) 3-1

Manual Pattern	Auto	ECPI Coord	Yes
System Source	TBC	System Format	STD
Splits In	Percent	Offsets In	Seconds
Transition	Smooth	Max Select	MAXINH
Dwell / Add Time	0		
Delay Coord Wk-LZ	No	Force Off	Float
Offset Reference	Lead	Use Ped Time	Yes
Ped Recall	Yes	Ped Reservice	Yes
Local Zero Override	No	FO Added Ini Green	No
Re-sync Count	3	Multisync	No

Auto Perm Minimum Green (Seconds) (MM) 3-4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Minimum Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Split Demand (MM) 3-5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Demand 1																
Demand 2																

Demand	1	2
Detector	0	0
Call Time (Sec)	0	0
Cycle Count	0	0

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REG5107 - Trafalgar Rd @ William Halton Pkwy - Econolite Type - Cobalt

Coordination Pattern Data
Coordinator Pattern Data (MM) 3-2

Coordinator Pattern # 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Percent
Cycle	140	Std (COS)	9	Offsets In	Seconds
Offset Value	0s	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	1		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	S-L	N-TR	W-L	E-TR	N-L	S-TR	E-L	W-TR	N	N	N	N	N	N	N	N
Splits (Split Pat 1)	10	50	9	31	10	50	9	31	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits In	Percent
Cycle	120	Std (COS)	17	Offsets In	Seconds
Offset Value	0s	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	2		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	S-L	N-TR	W-L	E-TR	N-L	S-TR	E-L	W-TR	N	N	N	N	N	N	N	N
Splits (Split Pat 2)	10	48	10	32	10	48	10	32	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits In	Percent
Cycle	140	Std (COS)	25	Offsets In	Seconds
Offset Value	0s	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	3		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	S-L	N-TR	W-L	E-TR	N-L	S-TR	E-L	W-TR	N	N	N	N	N	N	N	N
Splits (Split Pat 3)	12	48	9	31	12	48	9	31	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Special Funciton Outputs								

Coordinator Pattern # 4

Split Pattern	4	TS2 (Pat-Off)	1-1	Splits In	Percent
Cycle	120	Std (COS)	33	Offsets In	Seconds
Offset Value	0s	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	1		
Phase Reservice	No	Action Plan	4		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	S-L	N-TR	W-L	E-TR	N-L	S-TR	E-L	W-TR	N	N	N	N	N	N	N	N
Splits (Split Pat 4)	10	45	10	35	10	45	10	35	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

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MOVING TRAFFIC FORWARD

REG5107 - Trafalgar Rd @ William Halton Pkwy - Econolite Type - Cobalt

Coordination Split Pattern
Split Pattern Data (MM) 3-3

Split Pattern # 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	S-L	N-TR	W-L	E-TR	N-L	S-TR	E-L	W-TR	N	N	N	N	N	N	N	N
Split (percent)	10	50	9	31	10	50	9	31	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100%	100%	0%	0%

Split Pattern # 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	S-L	N-TR	W-L	E-TR	N-L	S-TR	E-L	W-TR	N	N	N	N	N	N	N	N
Split (percent)	10	48	10	32	10	48	10	32	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100%	100%	0%	0%

Split Pattern # 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	S-L	N-TR	W-L	E-TR	N-L	S-TR	E-L	W-TR	N	N	N	N	N	N	N	N
Split (percent)	12	48	9	31	12	48	9	31	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall		X				X										
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100%	100%	0%	0%

Split Pattern # 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	S-L	N-TR	W-L	E-TR	N-L	S-TR	E-L	W-TR	N	N	N	N	N	N	N	N

Split (percent)	10	45	10	35	10	45	10	35	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall																
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	**1**	**2**	**3**	**4**
Split Sum	100%	100%	0%	0%

Town of Oakville

ECONOLITE

MOVING TRAFFIC FORWARD

REG5107 - Trafalgar Rd @ William Halton Pkwy - Econolite Type - Cobalt

Preempt Plan

Preempt Plan (MM) 4-1

Preempt Plan 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dwell Veh	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	No	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	Yes	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Grn	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	7	5	4.0	2.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	0	0.0	0	4.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dwell Veh	.	.	.	X	.	.	.	X	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases		X				X										
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	No	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	Yes	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Grn	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	7	5	4.0	2.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	0	0.0	0	4.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Town of Oakville

ECONOLITE

MOVING TRAFFIC FORWARD

REG5107 - Trafalgar Rd @ William Halton Pkwy - Econolite Type - Cobalt

Time Base Clock/Calendar
Clock/Calendar Data (MM) 5-1

Manual Action Plan:	0
SYNC Reference Time:	00:00
SYNC Reference:	Reference Time
Day Light Savings:	USDLS
Time Reset Input Set Time:	3:30:00
Standard Time From GMT:	-5

Town of Oakville

ECONOLITE

MOVING TRAFFIC FORWARD

REG5107 - Trafalgar Rd @ William Halton Pkwy - Econolite Type - Cobalt

Time Base Action Plan
Action Plan (MM) 5-2

Action Plan - 1 - "1"

Pattern	1	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 2 - "2"

Pattern	2	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 3 - "3"

Pattern	3	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 4 - "4"

Pattern	4	Override Sys	No
Timing Plan	1	Sequence	1
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Town of Oakville

ECONOLITE

MOVING TRAFFIC FORWARD

REG5107 - Trafalgar Rd @ William Halton Pkwy - Econolite Type - Cobalt

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Day Plan #1 - "1"

Event	Action Plan	Start Time
1	1	06:00
2	2	10:00
3	3	15:15
4	4	20:00
5	5	22:00

Day Plan #2 - "2"

Event	Action Plan	Start Time
1	99	00:00
2	2	09:00
3	3	15:00
4	99	19:00

Schedule (MM) 5-4

Schedule Number - 1

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X	X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 2

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	12	13	14	15	16	17	18	19	20	21	22
	23	24	25	26	27	28	29	30	31		

Town of Oakville

ECONOLITE

MOVING TRAFFIC FORWARD

REG5107 - Trafalgar Rd @ William Halton Pkwy - Econolite Type - Cobalt

Detectors

Detectors - Pg 1

Veh Det Phase Assignment (MM) 6-1

Vehicle Detector Plan Number - 1

Veh Detector	Assigned Phase	Called Phase	Type
17	1		N
18	2		N
19	3		N
20	4	8	N
21	5		N
22	6		N
23	7		N
24	8	4	N
26	2		N
27	8	4	N
28	4	8	N
30	6		N
31	4	8	N
32	8	4	N

Vehicle Detector Plan Number - 2

Veh Detector	Assigned Phase	Called Phase	Type
1	1		N
2	2		N
3	3		N
4	4		N
5	5		N
6	6		N
7	7		N
8	8		N
9	9		N
10	10		N
11	11		N
12	12		N
13	13		N
14	14		N
15	15		N
16	16		N

Vehicle Detector Setup (MM) 6-2

Veh Detector	Type	TS2 Detector	Description
1	N-NTCIP	Yes	
2	N-NTCIP	Yes	
3	N-NTCIP	Yes	
4	N-NTCIP	Yes	
5	N-NTCIP	Yes	

6	N-NTCIP	Yes	
7	N-NTCIP	Yes	
8	N-NTCIP	Yes	
9	N-NTCIP	Yes	
10	N-NTCIP	Yes	
11	N-NTCIP	Yes	
12	N-NTCIP	Yes	
13	N-NTCIP	Yes	
14	N-NTCIP	Yes	
15	N-NTCIP	Yes	
16	N-NTCIP	Yes	
17	N-NTCIP	Yes	
18	N-NTCIP	Yes	
19	N-NTCIP	Yes	
20	N-NTCIP	Yes	
21	N-NTCIP	Yes	
22	N-NTCIP	Yes	
23	N-NTCIP	Yes	
24	N-NTCIP	Yes	
25	N-NTCIP	Yes	
26	N-NTCIP	Yes	
27	N-NTCIP	Yes	
28	N-NTCIP	Yes	
29	N-NTCIP	Yes	
30	N-NTCIP	Yes	
31	N-NTCIP	Yes	
32	N-NTCIP	Yes	
33	N-NTCIP	Yes	
34	N-NTCIP	Yes	
35	N-NTCIP	Yes	
36	N-NTCIP	Yes	
37	N-NTCIP	Yes	
38	N-NTCIP	Yes	
39	N-NTCIP	Yes	
40	N-NTCIP	Yes	
41	N-NTCIP	Yes	
42	N-NTCIP	Yes	
43	N-NTCIP	Yes	
44	N-NTCIP	Yes	
45	N-NTCIP	Yes	
46	N-NTCIP	Yes	
47	N-NTCIP	Yes	
48	N-NTCIP	Yes	
49	N-NTCIP	Yes	
50	N-NTCIP	Yes	
51	N-NTCIP	Yes	
52	N-NTCIP	Yes	
53	N-NTCIP	Yes	
54	N-NTCIP	Yes	
55	N-NTCIP	Yes	
56	N-NTCIP	Yes	
57	N-NTCIP	Yes	
58	N-NTCIP	Yes	
59	N-NTCIP	Yes	
60	N-NTCIP	Yes	
61	N-NTCIP	Yes	

62	N-NTCIP	Yes	
63	N-NTCIP	Yes	
64	N-NTCIP	Yes	

Vehicle Detector Plan Number - 1

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
19	3	No	Yes	0.0	Passage	0.0	0	No	8	Red	No	No	No
20	4	No	Yes	0.0	Passage	0.0	0	No	0	Red	No	No	No
21	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
23	7	No	Yes	0.0	Passage	0.0	0	No	4	Red	No	No	No
24	8	No	Yes	0.0	Passage	0.0	0	No	0	Red	No	No	No
25	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
26	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
27	8	No	Yes	15.0	Passage	0.0	0	No	0	None	No	No	No
28	4	No	Yes	0.0	Passage	0.0	0	No	0	Red	No	No	No
29	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
30	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
31	4	No	Yes	15.0	Passage	0.0	0	No	0	None	No	No	No
32	8	No	Yes	0.0	Passage	0.0	0	No	0	Red	No	No	No

Vehicle Detector Plan Number - 2

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

9	9	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	10	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	11	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	12	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	13	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	14	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	15	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	16	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Ped Detector Phase Assignment
(MM) 6-3

Mode: NTCIP

Called Phase	Detector
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16

Town of Oakville

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REG5101 - Trafalgar Rd @ Burnhamthorpe Rd - Econolite Type - ASC/3

Configuration Controller Sequence

Phase Ring Sequence and Assignment (MM) 1-1-1

Hardware Alternate Sequence Enable: No

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B		B		B							
Sequence 1																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 2																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 3																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 4																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 5																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 6																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 7																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 8																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 9																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 10																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 11																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 12																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 13																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 14																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.

Ring 2	|	**6**	**5**	|	**8**	**7**	|	**12**	**11**	|	**16**	**15**	|	.	.	.	.	.	.	.	.
Sequence 15																			
Ring 1	|	**1**	**2**	|	**4**	**3**	|	**9**	**10**	|	**14**	**13**	|	.	.	.	.	.	.	.	.
Ring 2	|	**6**	**5**	|	**8**	**7**	|	**12**	**11**	|	**16**	**15**	|	.	.	.	.	.	.	.	.
Sequence 16																			
Ring 1	|	**2**	**1**	|	**4**	**3**	|	**10**	**9**	|	**14**	**13**	|	.	.	.	.	.	.	.	.
Ring 2	|	**6**	**5**	|	**8**	**7**	|	**12**	**11**	|	**16**	**15**	|	.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Phases In Use	X	X	X	X		X		X								
Exclusive Ped																

Phase Compatibility (MM) 1-1-2

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Description	SBLT	NB	WBLT	EB		SB		WB								
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**
Description																

Administration (MM) 1-7-1

Enable Controller/Cabinet Interlock CRC	No
CRC (16 bit)	F0D6
Enable Automatic Backup to Datakey	No

Backup Prevent (MM) 1-1-3

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing	**1**		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Phases	**2**	X		.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	X		.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	X		.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	X		.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

Simultaneous Gap (MM) 1-1-4

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
Phase	**6**	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
Must	**7**	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
Gap	**8**	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.
With	**9**	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
Phase	**10**	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
	Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	1	V				-	Auto	X		
2	2	V				-	Auto	X		X
3	3	V				-	Auto	X		
4	4	V				-	Auto	X		X
5	5	.				+	Auto	X		
6	6	V				+	Auto	X		X
7	7	.				+	Auto	X		
8	8	V				+	Auto	X		X
9	2	.				-	Auto			
10	4	.				-	Auto			
11	6	.				+	Auto			
12	8	.				+	Auto			
13	1	O				-	Auto	X		

14	2	O				+	Auto	X		X
15	3	O				-	Auto	X		
16	4	O				+	Auto	X		X

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Configuration Port 1 (SDLC)

Port 1 SDLC (MM) 1-4-1

BIU	1	2	3	4	5	6	7	8
Term & Facility	X	X						
Detector Rack	X							

Enable TS2/MMU Type Cabinet: No
Enable MMU Extended Status: Yes
Enable SDLC Stop Time: No
Enable 3 Critical RFE's Lockup: Yes

MMU Program (MM) 1-4-2

Channel Can Serve With Channel	
Channel 1	**Channel 2**
1	5
1	6
1	11
2	5
2	6
2	9
2	11
3	7
3	8
3	12
4	7
4	8
4	10
4	12
5	9
6	9
6	11
7	10
8	10
8	12
9	11
10	12

Color Check Enable (MM) 1-4-3

Enable Color Check: No

MMU/LS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Green			X		X		X		X	X	X	X	X	X	X	X
Yellow			X		X		X		X	X	X	X	X	X	X	X
Red			X		X		X		X	X	X	X	X	X	X	X

Secondary Stations/Tests (MM) 1-4-4

ID	1	2	3	4	5	6	7	8	MMU
Term & Facility									

ID	1	2	3	4	5	6	7	8	Diag
Detector Rack									

Enable SDLC Diagnostic Test: No

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Configuration Logging / Display

Event Logging (MM) 1-6-1

Critical RFE's (MMU/TF)	Yes	3 Critical Errors Within 24 Hours	Yes
MMU Flash Faults	Yes	Local Flash Fault	Yes
Non-Critical RFE's (Det/Test)	Yes	Detector Errors	Yes
Coordination Errors	No	Controller Download	Yes
Preemption Events	Yes	TSP Events	Yes
Power On/Off	Yes	Low Battery	Yes
Access	Yes	Data Change	Yes
Online / Offline	Yes		

Alarm Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable Logging	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Display Options (MM) 1-7-2

Key Click Enable:	No
Backlight Enable:	Yes
LED Mode:	Auto
Display Mode:	Basic
Screen Format:	Advanced
Trans Mode Pop-Up Disable:	No

Sign On (MM) 8-5

Sign On Message Line 1: Solutions that Move the World
Sign On Message Line 2:

Software Modules (MM) 8-7

Application Version: 02.49.00
OS (Boot) Version: 01.12.05

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Logic Processor Page 1

Logic Statement Control (MM) 1-8-1

Logic #	Statement Control

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REG5101 - Trafalgar Rd @ Burnhamthorpe Rd - Econolite Type - ASC/3

Controller Timing Plan (MM) 2-1

Plan 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	SBLT	NB	WBLT	EB		SB		WB								
Min Green	7	20	7	10	0	20	0	10	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	7	0	7	0	7	0	7	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	3.0	5.0	3.0	3.0	0.0	5.0	0.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	15	45	0	30	0	60	0	30	35	35	35	35	35	35	35	35
Max2	15	45	15	35	0	60	0	50	40	40	40	40	40	40	40	40
Max3	15	45	0	55	0	60	0	55	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	4.6	3.0	3.7	3.0	4.6	3.0	3.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	1.0	1.4	1.0	2.3	1.0	1.4	1.0	2.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Controller Overlaps

Vehicle Overlaps (MM) 2-2

Overlap	Type	Lag Green	Yellow	Red	Adv. Green

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	5	0	7	3.0	0.0	5
B02	5	0	7	3.0	0.0	5
C03	5	0	7	3.0	0.0	5
D04	5	0	7	3.0	0.0	5
E05	5	0	7	3.0	0.0	5
F06	5	0	7	3.0	0.0	5
G07	5	0	7	3.0	0.0	5
H08	5	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5

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Controller Start / Flash Data (MM) 2-5

Start Up

Phase	Phase Setting
1	.
2	.
3	.
4	Y
5	.
6	.
7	.
8	Y
9	.
10	.
11	.
12	.
13	.
14	.
15	.
16	.

Overlap

Flash Thru Mon: Yes
Flash Time: 0
All Red: 0
Power Start Seq: 1
MUTCD Enabled: No
Y->G: n/a

Automatic Flash

Entry
2
6

Exit
2
6

Overlap Exit
A
B
C
D

Flash Thru Mon: Yes
Exit Flash: W
Minimum Flash: 8

Mimimum Recall: No
Cycle Through Phase: No

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Controller Options

Controller Options (MM) 2-6-1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I		X				X										
Non-Act II				X				X								
Dual Entry		X		X		X		X								
Cond Service																
Cond Reservice																
Ped Re-Service																
Rest In Walk																
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed																

Phase Recall Options (MM) 2-8

Plan # 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall		X				X										
Ped Recall																
Max Recall																
Soft Recall																
No Rest																
AI Calc																

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Coordination Options

Options (MM) 3-1

Manual Pattern	Auto	ECPI Coord	Yes
System Source	TBC	System Format	STD
Splits In	Percent	Offsets In	Percent
Transition	Smooth	Max Select	MAXINH
Dwell / Add Time	0		
Delay Coord Wk-LZ	No	Force Off	Float
Offset Reference	Lead	Use Ped Time	No
Ped Recall	No	Ped Reservice	No
Local Zero Override	No	FO Added Ini Green	No
Re-sync Count	0	Multisync	No

Auto Perm Minimum Green (Seconds) (MM) 3-4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Minimum Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Split Demand (MM) 3-5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Demand 1																
Demand 2																

Demand	1	2
Detector	0	0
Call Time (Sec)	0	0
Cycle Count	0	0

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Coordination Pattern Data
Coordinator Pattern Data (MM) 3-2

Coordinator Pattern # 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Percent
Cycle	120	Std (COS)	9	Offsets In	Percent
Offset Value	0%	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SBLT	NB	WBLT	EB		SB		WB								
Splits (Split Pat 1)	17	41	0	42	0	58	0	42	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall		X				X										
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits In	Percent
Cycle	110	Std (COS)	17	Offsets In	Percent
Offset Value	0%	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SBLT	NB	WBLT	EB		SB		WB								
Splits (Split Pat 2)	10	60	0	30	0	70	0	30	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall		X				X										
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits In	Percent
Cycle	120	Std (COS)	25	Offsets In	Percent
Offset Value	0%	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SBLT	NB	WBLT	EB		SB		WB								
Splits (Split Pat 3)	13	55	0	32	0	68	0	32	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall		X				X										
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Special Funciton Outputs								

Coordinator Pattern # 4

Split Pattern	4	TS2 (Pat-Off)	1-1	Splits In	Percent
Cycle	110	Std (COS)	33	Offsets In	Percent
Offset Value	0%	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	0		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	0		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SBLT	NB	WBLT	EB		SB		WB								
Splits (Split Pat 4)	13	42	13	32	0	55	0	45	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	100%	100%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall		X				X										
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Town of Oakville

ECONOLITE

MOVING TRAFFIC FORWARD

REG5101 - Trafalgar Rd @ Burnhamthorpe Rd - Econolite Type - ASC/3

Coordination Split Pattern
Split Pattern Data (MM) 3-3

Split Pattern # 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SBLT	NB	WBLT	EB		SB		WB								
Split (percent)	17	41	0	42	0	58	0	42	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall		X				X										
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100%	100%	0%	0%

Split Pattern # 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SBLT	NB	WBLT	EB		SB		WB								
Split (percent)	10	60	0	30	0	70	0	30	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall		X				X										
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100%	100%	0%	0%

Split Pattern # 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SBLT	NB	WBLT	EB		SB		WB								
Split (percent)	13	55	0	32	0	68	0	32	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall		X				X										
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	100%	100%	0%	0%

Split Pattern # 4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	SBLT	NB	WBLT	EB		SB		WB								

Split (percent)	13	42	13	32	0	55	0	45	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall		X				X										
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	**1**	**2**	**3**	**4**
Split Sum	100%	100%	0%	0%

Town of Oakville

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MOVING TRAFFIC FORWARD

REG5101 - Trafalgar Rd @ Burnhamthorpe Rd - Econolite Type - ASC/3

Preempt Plan

Preempt Plan (MM) 4-1

Preempt Plan 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dwell Veh	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases		X				X										
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	Yes	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	Yes	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Grn	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	0	3	4.0	1.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	0	0.0	0	4.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Town of Oakville

ECONOLITE

MOVING TRAFFIC FORWARD

REG5101 - Trafalgar Rd @ Burnhamthorpe Rd - Econolite Type - ASC/3

Time Base Clock/Calendar
Clock/Calendar Data (MM) 5-1

Manual Action Plan:	0
SYNC Reference Time:	03:15
SYNC Reference:	Reference Time
Day Light Savings:	USDLS
Time Reset Input Set Time:	3:30:00
Standard Time From GMT:	-5

Town of Oakville

ECONOLITE

MOVING TRAFFIC FORWARD

REG5101 - Trafalgar Rd @ Burnhamthorpe Rd - Econolite Type - ASC/3

Time Base Action Plan
Action Plan (MM) 5-2

Action Plan - 1

Pattern	1	Override Sys	Yes
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit			X													

Spec Func (1-8)								
Aux Func (1-3)								

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 2

Pattern	2	Override Sys	Yes
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit			X													
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 3

Pattern	3	Override Sys	Yes
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit			X													
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 4

Pattern	4	Override Sys	Yes
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 5

Pattern	Free	Override Sys	Yes
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit			X													
Spec Func (1-8)																
Aux Func (1-3)																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Town of Oakville

ECONOLITE

MOVING TRAFFIC FORWARD

REG5101 - Trafalgar Rd @ Burnhamthorpe Rd - Econolite Type - ASC/3

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Day Plan #1

Event	Action Plan	Start Time
1	1	06:00
2	2	10:00
3	3	15:00
5	5	22:00

Day Plan #2

Event	Action Plan	Start Time
1	1	06:00
2	2	10:00
3	4	13:00
4	3	15:45
5	5	22:00

Day Plan #3

Event	Action Plan	Start Time
1	3	06:00
2	5	22:00

Schedule (MM) 5-4

Schedule Number - 1

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X		

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 2

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
						X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 3

Day Plan No.: 3

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22

	X	X	X	X	X	X	X	X	X	X	X
	23	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**		
	X	X	X	X	X	X	X	X	X		

Town of Oakville

ECONOLITE

MOVING TRAFFIC FORWARD

REG5101 - Trafalgar Rd @ Burnhamthorpe Rd - Econolite Type - ASC/3

Detectors

Detectors - Pg 1

Veh Det Phase Assignment (MM) 6-1

Vehicle Detector Plan Number - 1

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	3	8	S
4	4	8	S
5	2		S
6	6		S
7	4	8	S
8	8	4	S
9	9		S
10	10		S
11	11		S
12	12		S
13	13		S
14	14		S
15	15		S
16	16		S

Vehicle Detector Plan Number - 2

Veh Detector	Assigned Phase	Called Phase	Type
1	1		S
2	2		S
3	3		S
4	4		S
5	5		S
6	6		S
7	7		S
8	8		S
9	9		S
10	10		S
11	11		S
12	12		S
13	13		S
14	14		S
15	15		S
16	16		S

Vehicle Detector Setup (MM) 6-2

Veh Detector	Type	TS2 Detector	Description
1	S-STANDARD	Yes	
2	S-STANDARD	Yes	
3	S-STANDARD	Yes	

4	S-STANDARD	Yes	
5	S-STANDARD	Yes	
6	S-STANDARD	Yes	
7	S-STANDARD	Yes	
8	S-STANDARD	Yes	
9	S-STANDARD	Yes	
10	S-STANDARD	Yes	
11	S-STANDARD	Yes	
12	S-STANDARD	Yes	
13	S-STANDARD	Yes	
14	S-STANDARD	Yes	
15	S-STANDARD	Yes	
16	S-STANDARD	Yes	
17	S-STANDARD	Yes	
18	S-STANDARD	Yes	
19	S-STANDARD	Yes	
20	S-STANDARD	Yes	
21	C-CALLING	Yes	
22	S-STANDARD	Yes	
23	S-STANDARD	Yes	
24	S-STANDARD	Yes	
25	S-STANDARD	Yes	
26	S-STANDARD	Yes	
27	S-STANDARD	Yes	
28	S-STANDARD	Yes	
29	S-STANDARD	Yes	
30	S-STANDARD	Yes	
31	S-STANDARD	Yes	
32	S-STANDARD	Yes	
33	S-STANDARD	Yes	
34	S-STANDARD	Yes	
35	S-STANDARD	Yes	
36	S-STANDARD	Yes	
37	S-STANDARD	Yes	
38	S-STANDARD	Yes	
39	S-STANDARD	Yes	
40	S-STANDARD	Yes	
41	S-STANDARD	Yes	
42	S-STANDARD	Yes	
43	S-STANDARD	Yes	
44	S-STANDARD	Yes	
45	S-STANDARD	Yes	
46	S-STANDARD	Yes	
47	S-STANDARD	Yes	
48	S-STANDARD	Yes	
49	S-STANDARD	Yes	
50	S-STANDARD	Yes	
51	S-STANDARD	Yes	
52	S-STANDARD	Yes	
53	S-STANDARD	Yes	
54	S-STANDARD	Yes	
55	S-STANDARD	Yes	
56	S-STANDARD	Yes	
57	S-STANDARD	Yes	
58	S-STANDARD	Yes	
59	S-STANDARD	Yes	

60	S-STANDARD	Yes	
61	S-STANDARD	Yes	
62	S-STANDARD	Yes	
63	S-STANDARD	Yes	
64	S-STANDARD	Yes	

Vehicle Detector Plan Number - 1

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	6	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	9	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	10	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	11	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	12	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	13	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	14	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	15	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	16	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
21	0	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 2

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	9	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	10	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	11	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	12	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	13	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	14	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	15	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	16	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
17	0	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
21	0	No	Yes	0.0	None	0.0	0	No	0	None	No	No	No

Ped Detector Phase Assignment
(MM) 6-3

Mode: NTCIP

Called Phase	Detector
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16

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Configuration Controller Sequence

Phase Ring Sequence and Assignment (MM) 1-1-1

Hardware Alternate Sequence Enable: Yes

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B		B		B							
Sequence 1																
Ring 1	1	2	3	4	9	10	11	12	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	13	14	15	16	.	.	.	.	.	.	.	.
Sequence 2																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 3																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 4																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	11	12	15	16	.	.	.	.	.	.	.	.
Sequence 5																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 6																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 7																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 8																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	12	11	15	16	.	.	.	.	.	.	.	.
Sequence 9																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 10																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 11																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 12																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	11	12	16	15	.	.	.	.	.	.	.	.
Sequence 13																
Ring 1	1	2	3	4	9	10	13	14	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 14																
Ring 1	2	1	3	4	10	9	13	14	.	.	.	.	.	.	.	.

Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 15																
Ring 1	1	2	4	3	9	10	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.
Sequence 16																
Ring 1	2	1	4	3	10	9	14	13	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	12	11	16	15	.	.	.	.	.	.	.	.

Phases In Use/Exclusive Ped (MM) 1-2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use		X				X		X								
Exclusive Ped																

Phase Compatibility (MM) 1-1-2

Phase	
n/a	Barrier Mode

Phase and Overlap Descriptions

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Approach	N	N	N	N	N	S	N	W	N	N	N	N	N	N	N	N
Movement		TR				LT		LR								
Associated PED		X														
Overlap	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**
Approach	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Movement																

Administration (MM) 1-7-1

Enable Controller/Cabinet Interlock CRC	No
CRC (16 bit)	FA30
Enable Automatic Backup to Datakey	No

Backup Prevent (MM) 1-1-3

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Timing	**1**		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Phases	**2**	X		.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	X		.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
	6	.	.	.	.	X		.	.	.	.	.	.	.	.	.	.
	7	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
	8	.	.	.	.	.	.	X		.	.	.	.	.	.	.	.
	9	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
	10	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	

Simultaneous Gap (MM) 1-1-4

	Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2	.		.	.	.	.	.	.	.	.	.	.	.	.	.	.
	3	.	.		.	.	.	.	.	.	.	.	.	.	.	.	.
	4	.	.	.		.	.	.	.	.	.	.	.	.	.	.	.
	5	.	.	.	.		.	.	.	.	.	.	.	.	.	.	.
Phase	**6**	.	.	.	.	.		.	.	.	.	.	.	.	.	.	.
Must	**7**	.	.	.	.	.	.		.	.	.	.	.	.	.	.	.
Gap	**8**	.	.	.	.	.	.	.		.	.	.	.	.	.	.	.
With	**9**	.	.	.	.	.	.	.	.		.	.	.	.	.	.	.
Phase	**10**	.	.	.	.	.	.	.	.	.		.	.	.	.	.	.
	11	.	.	.	.	.	.	.	.	.	.		.	.	.	.	.
	12	.	.	.	.	.	.	.	.	.	.	.		.	.	.	.
	13	.	.	.	.	.	.	.	.	.	.	.	.		.	.	.
	14	.	.	.	.	.	.	.	.	.	.	.	.	.		.	.
	15	.	.	.	.	.	.	.	.	.	.	.	.	.	.		.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
	Disable	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Load Switch Assignments (MM) 1-3

	Phase / Overlap	Type	Dimming				Power Up	Auto		Flash Together
			Red	Yellow	Green	Dark		Red	Yellow	
1	1	V				-	Auto	X		
2	2	V				-	Auto	X		X
3	3	V				-	Auto	X		
4	4	V				-	Auto	X		X
5	5	V				+	Auto	X		
6	6	V				+	Auto	X		X
7	7	V				+	Auto	X		
8	8	V				+	Auto	X		X
9	2	P				-	Auto			
10	4	P				-	Auto			
11	6	P				+	Auto			
12	8	P				+	Auto			
13	1	O				-	Auto	X		

14	2	O				+	Auto	X		X
15	3	O				-	Auto	X		
16	4	O				+	Auto	X		X

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Configuration Port 1 (SDLC)

Port 1 SDLC (MM) 1-4-1

BIU	1	2	3	4	5	6	7	8
Term & Facility	X	X						
Detector Rack		X						

Enable TS2/MMU Type Cabinet: No
Enable MMU Extended Status: Yes
Enable SDLC Stop Time: No
Enable 3 Critical RFE's Lockup: Yes

MMU Program (MM) 1-4-2

Channel Can Serve With Channel	
Channel 1	**Channel 2**

Color Check Enable (MM) 1-4-3

Enable Color Check: No

MMU/LS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Green																
Yellow																
Red																

Secondary Stations/Tests (MM) 1-4-4

ID	1	2	3	4	5	6	7	8	MMU
Term & Facility									

ID	1	2	3	4	5	6	7	8	Diag
Detector Rack									

Enable SDLC Diagnostic Test: No

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Configuration Logging / Display

Event Logging (MM) 1-6-1

Critical RFE's (MMU/TF)	Yes	3 Critical Errors Within 24 Hours	Yes
MMU Flash Faults	Yes	Local Flash Fault	Yes
Non-Critical RFE's (Det/Test)	No	Detector Errors	No
Coordination Errors	No	Controller Download	Yes
Preemption Events	Yes	TSP Events	Yes
Power On/Off	Yes	Low Battery	Yes
Access	Yes	Data Change	Yes
Online / Offline	Yes		

Alarm Event	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enable Logging	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Display Options (MM) 1-7-2

Key Click Enable:	Yes
Switch to Graphics Mode:	No
LED Mode:	Auto
Display Mode:	Basic
Trans Mode Pop-Up Disable:	No

Sign On (MM) 8-5

Sign On Message Line 1: Trafalgar Rd @ Threshing Mill
Sign On Message Line 2:

Software Modules (MM) 8-7

Application Version: 32.66.10
OS (Boot) Version: 06.07.00

Town of Oakville

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Logic Processor Page 1

Logic Statement Control (MM) 1-8-1

Logic #	Statement Control

Town of Oakville

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REG1319 - Trafalgar Rd Threshing Mill Blvd - Econolite Type - Cobalt

Controller Timing Plan (MM) 2-1

Plan 1 - ""

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Direction	**N**	**N-TR**	**N**	**N**	**N**	**S-LT**	**N**	**W-LR**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
Min Green	5	20	5	5	5	20	5	10	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	7	0	0	0	7	0	0	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	28	0	0	0	28	0	0	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	3.0	5.0	3.0	3.0	3.0	5.0	3.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	35	60	35	35	35	60	35	30	35	35	35	35	35	35	35	35
Max2	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	3.0	4.6	3.0	4.0	3.0	4.6	3.0	3.3	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Red Clear	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Controller Overlaps

Vehicle Overlaps (MM) 2-2

Overlap	Type	Lag Green	Yellow	Red	Adv. Green

Phases

Overlap	Phase	Included	Protect	Ped Protect	Not Overlap	Modifier	Lag X Phases	Lag 2 Phases	Flash Green
A	2	Yes	No	No	No		Yes	No	.
B	4	Yes	No	No	No		Yes	No	.
C	6	Yes	No	No	No		Yes	No	.
D	8	Yes	No	No	No		Yes	No	.

PPLT FYA

Overlap	Protected Phase (Left Turn)	Permissive Phase (Opposing Thru)	Flashing Arrow Output	Flashing Arrow Output CH	Delay Start of FYA	Delay Start of Clearance	Action Plan SF Bit Disable	Ped Protected Enable

Guaranteed Minimum Time Data (MM) 2-4

Phase	Min Green	Walk	Ped Clear	Yellow	Red Clear	Overlap Green
A01	5	0	7	3.0	0.0	5
B02	5	0	7	3.0	0.0	5
C03	5	0	7	3.0	0.0	5
D04	5	0	7	3.0	0.0	5
E05	5	0	7	3.0	0.0	5
F06	5	0	7	3.0	0.0	5
G07	5	0	7	3.0	0.0	5
H08	5	0	7	3.0	0.0	5
I09	5	0	7	3.0	0.0	5
J10	5	0	7	3.0	0.0	5
K11	5	0	7	3.0	0.0	5
L12	5	0	7	3.0	0.0	5
M13	5	0	7	3.0	0.0	5
N14	5	0	7	3.0	0.0	5
O15	5	0	7	3.0	0.0	5
P16	5	0	7	3.0	0.0	5

Town of Oakville

ECONOLITE

MOVING TRAFFIC FORWARD

REG1319 - Trafalgar Rd Threshing Mill Blvd - Econolite Type - Cobalt

Controller Start / Flash Data (MM) 2-5

Start Up

Phase	Phase Setting
1	.
2	R
3	.
4	.
5	.
6	R
7	.
8	.
9	.
10	.
11	.
12	.
13	.
14	.
15	.
16	.

Overlap

Flash Thru Mon: No
Flash Time: 2
All Red: 4
Power Start Seq: 1
MUTCD Enabled: No
Y->G: n/a

Automatic Flash

Entry
2
6

Exit
2
6

Overlap Exit

Flash Thru Mon: Yes
Exit Flash: W
Minimum Flash: 8
Mimimum Recall: Yes
Cycle Through Phase: Yes

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MOVING TRAFFIC FORWARD

REG1319 - Trafalgar Rd Threshing Mill Blvd - Econolite Type - Cobalt

Controller Options

Controller Options (MM) 2-6-1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Flashing Grn Ph	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guar Passage																
Non-Act I		X				X										
Non-Act II				X				X								
Dual Entry		X		X		X		X								
Cond Service																
Cond Reservice																
Ped Re-Service		X														
Rest In Walk																
Flashing Walk																
Ped Clr-Yel																
Ped Clr-Red																
IGRN + Veh Ext																

Ped Clear Protect: Off Unit Red Revert: 2.0 MUTCD 3 Seconds Don't Walk: No

Pre-Timed Mode (MM) 2-7

Enable Pre-Timed Mode: No Free Input Disables Pre-Timed: No

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pre-Timed																

Phase Recall Options (MM) 2-8

Plan # 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Lock Detector																
Vehicle Recall		X				X										
Ped Recall		X														
Max Recall																
Soft Recall																
No Rest																
AI Calc																

Town of Oakville

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MOVING TRAFFIC FORWARD

REG1319 - Trafalgar Rd Threshing Mill Blvd - Econolite Type - Cobalt

Coordination Options

Options (MM) 3-1

Manual Pattern	Auto	ECPI Coord	Yes
System Source	TBC	System Format	TS2
Splits In	Percent	Offsets In	Percent
Transition	Smooth	Max Select	MAXINH
Dwell / Add Time	0		
Delay Coord Wk-LZ	No	Force Off	Float
Offset Reference	Lag	Use Ped Time	Yes
Ped Recall	Yes	Ped Reservice	Yes
Local Zero Override	No	FO Added Ini Green	No
Re-sync Count	0	Multisync	No

Auto Perm Minimum Green (Seconds) (MM) 3-4

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Minimum Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Split Demand (MM) 3-5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Demand 1																
Demand 2																

Demand	1	2
Detector	0	0
Call Time (Sec)	0	0
Cycle Count	0	0

Town of Oakville

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MOVING TRAFFIC FORWARD

REG1319 - Trafalgar Rd Threshing Mill Blvd - Econolite Type - Cobalt

Coordination Pattern Data
Coordinator Pattern Data (MM) 3-2

Coordinator Pattern # 1

Split Pattern	1	TS2 (Pat-Off)	0-1	Splits In	Percent
Cycle	120	Std (COS)	9	Offsets In	Percent
Offset Value	11%	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	1		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N	N-TR	N	N	N	S-LT	N	W-LR	N	N	N	N	N	N	N	N
Splits (Split Pat 1)	0	75	0	0	0	75	0	25	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	75%	100%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall		X				X										
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 2

Split Pattern	2	TS2 (Pat-Off)	0-2	Splits In	Percent
Cycle	100	Std (COS)	17	Offsets In	Percent
Offset Value	0%	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	2		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N	N-TR	N	N	N	S-LT	N	W-LR	N	N	N	N	N	N	N	N
Splits (Split Pat 2)	0	70	0	0	0	70	0	30	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	70%	100%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall		X				X										
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X
Special Funciton Outputs																

Coordinator Pattern # 3

Split Pattern	3	TS2 (Pat-Off)	0-3	Splits In	Percent
Cycle	120	Std (COS)	25	Offsets In	Percent
Offset Value	17%	Dwell/Add Time	0		
Actuated Coord	Yes	Timing Plan	1		
Actuated Walk Rest	No	Sequence	0		
Phase Reservice	No	Action Plan	3		
Max Select	None	Force Off	None		

Split Preference Phases

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N	N-TR	N	N	N	S-LT	N	W-LR	N	N	N	N	N	N	N	N
Splits (Split Pat 3)	0	75	0	0	0	75	0	25	0	0	0	0	0	0	0	0
Pref 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pref 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Ring Displacement	-	0	0	0
Split Sum	75%	100%	0%	0%

Misc. Data

Veh Perm 1	0	Veh Perm 2	0	Veh Perm 2 Disp	0
Split Demand Pat 1	0	Split Demand Pat 2	0	Crossing Arterial Pat	0

Split Pattern

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Vehicle Recall		X				X										
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Special Funciton Outputs								

Town of Oakville

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MOVING TRAFFIC FORWARD

REG1319 - Trafalgar Rd Threshing Mill Blvd - Econolite Type - Cobalt

Coordination Split Pattern
Split Pattern Data (MM) 3-3

Split Pattern # 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N	N-TR	N	N	N	S-LT	N	W-LR	N	N	N	N	N	N	N	N
Split (percent)	0	75	0	0	0	75	0	25	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall		X				X										
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	75%	100%	0%	0%

Split Pattern # 2

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N	N-TR	N	N	N	S-LT	N	W-LR	N	N	N	N	N	N	N	N
Split (percent)	0	70	0	0	0	70	0	30	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall		X				X										
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	70%	100%	0%	0%

Split Pattern # 3

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N	N-TR	N	N	N	S-LT	N	W-LR	N	N	N	N	N	N	N	N
Split (percent)	0	75	0	0	0	75	0	25	0	0	0	0	0	0	0	0
Coord Phase		X				X										
Vehicle Recall		X				X										
Pedestrian Recall																
Recall to Max. Time																
Omit Phase									X	X	X	X	X	X	X	X

Ring	1	2	3	4
Split Sum	75%	100%	0%	0%

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MOVING TRAFFIC FORWARD

REG1319 - Trafalgar Rd Threshing Mill Blvd - Econolite Type - Cobalt

Preempt Plan

Preempt Plan (MM) 4-1

Preempt Plan 5

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dwell Veh	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	No	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	Yes	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Grn	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	7	5	3.0	2.0
	Min Grn	Ext Grn	Max Grn	Yellow	Red
Track Clear	0	0	0	4.0	1.0
	Min Dwell	Pmt Ext	Max Time	Yellow	Red
Dwell / Cycle-Exit	0	0.0	0	4.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt Plan 6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Overlap	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trk Clr Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Trk Clr Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Trailing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dwell Veh	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.
Dwell Ped																
Dwell Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Veh	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cycling Ped																
Cycling Overlap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Exit Phases																
Exit Calls																
Special Function																

Enable	Yes	Preempt Override	Yes	Interlock Enable	No
Det Lock	Yes	Delay	0	Inhibit	0
Override Flash	No	Duration	10	CLR > GRN	No
Term Ovlp Asap	No	PC Through Yel	Yes	Terminate Phase	No
Ped Dark	No	Track Clear Rsrv	No	Dwell Flash	Off
Linked Pmt	0	FL Exit Color	Grn	Exit Options	Off
Exit Timing Plan	0	Reservice	0	Fault Type	Hard

Ring	1	2	3	4
Free During Pmt	No	No	No	No

Timing	Walk	Ped Clr	Min Grn	Yellow	Red
Entrance	0	7	5	3.0	2.0
	Min Grn	**Ext Grn**	**Max Grn**	**Yellow**	**Red**
Track Clear	0	0	0	4.0	1.0
	Min Dwell	**Pmt Ext**	**Max Time**	**Yellow**	**Red**
Dwell / Cycle-Exit	0	0.0	0	4.0	1.0

Preemption Active Out	On	Preempt Act Dwell	No
Other - Priority Preempt	Off	Non-Priority Pmt	Off
Inhibit Extension Time	0.0	Ped Priority Return	Off
Veh Priority Return	Off	Queue Delay	Off
Conditional Delay	Off		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Veh Pri Return %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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MOVING TRAFFIC FORWARD

REG1319 - Trafalgar Rd Threshing Mill Blvd - Econolite Type - Cobalt

Time Base Clock/Calendar
Clock/Calendar Data (MM) 5-1

Manual Action Plan:	0
SYNC Reference Time:	03:15
SYNC Reference:	Reference Time
Day Light Savings:	USDLS
Time Reset Input Set Time:	3:30:00
Standard Time From GMT:	-5

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REG1319 - Trafalgar Rd Threshing Mill Blvd - Econolite Type - Cobalt

Time Base Action Plan
Action Plan (MM) 5-2

Action Plan - 1 - "1"

Pattern	1	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall		X														
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								
Aux Func (1-3)								

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 2 - "2"

Pattern	2	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall		X														
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 3 - "3"

Pattern	3	Override Sys	No
Timing Plan	1	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall		X														
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

Action Plan - 4 - "4"

Pattern	Free	Override Sys	No
Timing Plan	0	Sequence	0
Veh Detector Plan	0	Det Log	None
Flash	No	Red Rest	No
Veh Det Diag Plan	0	Ped Det Diag Plan	0
Dimming Enable	No	Pmt Veh Priority Ret	No
Pmt Ped Priority Ret	No	Pmt Queue Delay	No
Pmt Cond Delay	No		

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall		X														
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																

Spec Func (1-8)								

Aux Func (1-3)			

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LP 1-15	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 16-30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 31-45	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 46-60	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 61-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 91-100	.	.	.	.	.	.	.	.	.	.					

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MOVING TRAFFIC FORWARD

REG1319 - Trafalgar Rd Threshing Mill Blvd - Econolite Type - Cobalt

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Day Plan #1 - "1"

Event	Action Plan	Start Time
1	1	06:00
2	2	09:30
3	3	15:15
4	2	19:00
5	4	21:00

Day Plan #2 - "2"

Event	Action Plan	Start Time
1	99	00:00
2	2	09:00
3	3	15:00
4	99	19:00

Schedule (MM) 5-4

Schedule Number - 1

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X	X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
	X	X	X	X	X	X	X	X	X	X	X
	23	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 2

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	12	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
	23	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**		

Town of Oakville

ECONOLITE

MOVING TRAFFIC FORWARD

REG1319 - Trafalgar Rd Threshing Mill Blvd - Econolite Type - Cobalt

Detectors

Detectors - Pg 1

Veh Det Phase Assignment (MM) 6-1

Vehicle Detector Plan Number - 1

Veh Detector	Assigned Phase	Called Phase	Type
1	1		N
2	2		N
3	3		N
4	4		N
5	5		N
6	6		N
7	7		N
8	8		N
9	9		N
10	10		N
11	11		N
12	12		N
13	13		N
14	14		N
15	15		N
16	16		N
18	2		N
22	6		N
24	8		N
32	8		N

Vehicle Detector Plan Number - 2

Veh Detector	Assigned Phase	Called Phase	Type
1	1		N
2	2		N
3	3		N
4	4		N
5	5		N
6	6		N
7	7		N
8	8		N
9	9		N
10	10		N
11	11		N
12	12		N
13	13		N
14	14		N
15	15		N
16	16		N

Vehicle Detector Setup (MM) 6-2

Veh Detector	Type	TS2 Detector	Description
1	N-NTCIP	Yes	
2	N-NTCIP	Yes	
3	N-NTCIP	Yes	
4	N-NTCIP	Yes	
5	N-NTCIP	Yes	
6	N-NTCIP	Yes	
7	N-NTCIP	Yes	
8	N-NTCIP	Yes	
9	N-NTCIP	Yes	
10	N-NTCIP	Yes	
11	N-NTCIP	Yes	
12	N-NTCIP	Yes	
13	N-NTCIP	Yes	
14	N-NTCIP	Yes	
15	N-NTCIP	Yes	
16	N-NTCIP	Yes	
17	N-NTCIP	Yes	
18	N-NTCIP	Yes	
19	N-NTCIP	Yes	
20	N-NTCIP	Yes	
21	N-NTCIP	Yes	
22	N-NTCIP	Yes	
23	N-NTCIP	Yes	
24	N-NTCIP	Yes	
25	N-NTCIP	Yes	
26	N-NTCIP	Yes	
27	N-NTCIP	Yes	
28	N-NTCIP	Yes	
29	N-NTCIP	Yes	
30	N-NTCIP	Yes	
31	N-NTCIP	Yes	
32	N-NTCIP	Yes	
33	N-NTCIP	Yes	
34	N-NTCIP	Yes	
35	N-NTCIP	Yes	
36	N-NTCIP	Yes	
37	N-NTCIP	Yes	
38	N-NTCIP	Yes	
39	N-NTCIP	Yes	
40	N-NTCIP	Yes	
41	N-NTCIP	Yes	
42	N-NTCIP	Yes	
43	N-NTCIP	Yes	
44	N-NTCIP	Yes	
45	N-NTCIP	Yes	
46	N-NTCIP	Yes	
47	N-NTCIP	Yes	
48	N-NTCIP	Yes	
49	N-NTCIP	Yes	
50	N-NTCIP	Yes	
51	N-NTCIP	Yes	
52	N-NTCIP	Yes	
53	N-NTCIP	Yes	
54	N-NTCIP	Yes	
55	N-NTCIP	Yes	

56	N-NTCIP	Yes	
57	N-NTCIP	Yes	
58	N-NTCIP	Yes	
59	N-NTCIP	Yes	
60	N-NTCIP	Yes	
61	N-NTCIP	Yes	
62	N-NTCIP	Yes	
63	N-NTCIP	Yes	
64	N-NTCIP	Yes	

Vehicle Detector Plan Number - 1

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	9	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	10	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	11	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	12	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	13	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	14	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
15	15	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	16	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
18	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
22	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
24	8	No	Yes	0.0	Queue	0.0	0	No	0	None	No	No	No
32	8	No	Yes	7.0	Passage	0.0	0	No	0	None	No	No	No

Vehicle Detector Plan Number - 2

Veh Detector	Phase	ECPI Log	Call Option	Delay Time	Ext Option	Extend Time / Passage Time	Queue Lim. / Discon. Time	Use Added Initial	Cross Switch Ph	Lock In	NTCIP Vol.	NTCIP Occ.	Pmt Queue Delay
1	1	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
2	2	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
3	3	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
4	4	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
5	5	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
6	6	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
7	7	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
8	8	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
9	9	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
10	10	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
11	11	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
12	12	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
13	13	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
14	14	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

15	15	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No
16	16	No	Yes	0.0	Passage	0.0	0	No	0	None	No	No	No

Ped Detector Phase Assignment
(MM) 6-3

Mode: NTCIP

Called Phase	Detector
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16

Date: 01-Jan-20
Intersection: Trafalgar Road & Wheat Boom

8 Phase Basic Timing Sheet

	1	2	3	4	5	6	7	8	2 Ped	4 Ped	6 Ped	8 Ped
Phases in use		x				x		x	X			
Direction	SBLT	NB	WBLT	EB	NBLT	SB	EBLT	WB				
Min Green		20				20		10				
Veh Ext.		5.0				5.0		3.0				
Yellow		4.6				4.6		3.3				
Red		2				2		2.2				
Walk		7										
Don't Walk		28										
Max 1		60				60		30				
Max 2												
Max 3												
Veh Recall		X				X						
Ped Recall		X										

Notes:

Set Sync Reference to 3:15

Pattern 1
Time: 6:00
Cycle Length: 120
Offset (%): 0%

Direction	SBLT	NB	WBLT	EB
Phase	1	2	3	4
%		75		
Direction	NBLT	SB	EBLT	WB
Phase	5	6	7	8
%		75		25

Pattern 2
Time: 9:30, 19:00
Cycle Length: 100
Offset (%): 11%

Direction	SBLT	NB	WBLT	EB
Phase	1	2	3	4
%		70		
Direction	NBLT	SB	EBLT	WB
Phase	5	6	7	8
%		70		23

Pattern 3
Time: 15:15
Cycle Length: 120
Offset (%): 11%

Direction	SBLT	NB	WBLT	EB
Phase	1	2	3	4
%		75		
Direction	NBLT	SB	EBLT	WB
Phase	5	6	7	8
%		75		25

Pattern 4
Time: 21:00
Cycle Length: Local
Offset (%):

Direction	SBLT	NB	WBLT	EB
Phase	1	2	3	4
%				
Direction	NBLT	SB	EBLT	WB
Phase	5	6	7	8
%				

Pattern 5
Time:
Cycle Length:
Offset (%):

Direction				
Phase	1	2	3	4
%				
Direction				
Phase	5	6	7	8
%				

Pattern 6
Time:
Cycle Length:
Offset (%):

Direction				
Phase	1	2	3	4
%				
Direction				
Phase	5	6	7	8
%				

Date: 29-May-2020
Intersection: Dundas St @ Trafalgar Rd

8 Phase Basic Timing Sheet												
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**2 Ped**	**4 Ped**	**6 Ped**	**8 Ped**
Phases in use	x	x	x	x	x	x	x	x	x	x	x	x
Direction	WBLT	EB	NBLT	SB	EBLT	WB	SBLT	NB				
Min Green	7	20	7	10	7	20	7	10				
Veh Ext.	3.5	5.5	3.5	3.5	3.5	5.5	3.5	3.5				
Yellow	3.0	3.7	3.0	3.7	3.0	3.7	3.0	3.7				
Red	1	2.7	1	2.8	2	2.7	1	2.8				
Walk		7		7		7		7				
Don't Walk		27		27		27		27				
Max 1	20	55	20	35	20	55	20	35				
Max 2	20	60	20	40	20	60	20	40				
Max 3												
Veh Recall			x									
Ped Recall												

Notes:
Pedestrian Reservice Active
Local Zero Override Active
Sync Reference 3:15

Pattern 1
Time: 6:00
Cycle Length: 130
Offset (%): 14%

Direction	WBLT	EB	NBLT	SB
Phase	*1*	*2*	*3*	*4*
%	11%	39%	14%	36%
Direction	**EBLT**	**WB**	**SBLT**	**NB**
Phase	*5*	*6*	*7*	*8*
%	17%	33%	10%	40%

Pattern 2
Time: 10:00
Cycle Length: 120
Offset (%): 6%

Direction	WBLT	EB	NBLT	SB
Phase	*1*	*2*	*3*	*4*
%	14%	36%	12%	38%
Direction	**EBLT**	**WB**	**SBLT**	**NB**
Phase	*5*	*6*	*7*	*8*
%	12%	38%	15%	35%

Pattern 3
Time: 15:15
Cycle Length: 130
Offset (%): 31%

Direction	WBLT	EB	NBLT	SB
Phase	*1*	*2*	*3*	*4*
%	16%	36%	12%	36%
Direction	**EBLT**	**WB**	**SBLT**	**NB**
Phase	*5*	*6*	*7*	*8*
%	16%	36%	12%	36%

Pattern 4
Time: 19:00
Cycle Length: 120
Offset (%): 14%

Direction	WBLT	EB	NBLT	SB
Phase	*1*	*2*	*3*	*4*
%	13%	38%	12%	37%
Direction	**EBLT**	**WB**	**SBLT**	**NB**
Phase	*5*	*6*	*7*	*8*
%	13%	38%	12%	37%

Pattern 5
Time: 22:00
Cycle Length: Local
Offset (%):

Direction	WBLT	EB	NBLT	SB
Phase	*1*	*2*	*3*	*4*
%				
Direction	**EBLT**	**WB**	**SBLT**	**NB**
Phase	5	6	7	8
%				

Pattern 6
Time:
Cycle Length:
Offset (%):

Direction				
Phase	*1*	*2*	*3*	*4*
%				
Direction				
Phase	5	6	7	8
%				

```
****************************************
*   ECONOLITE CONTROL PRODUCTS, INC.   *
*                                      *
*              COBALT-1000             *
*       Copyright (C)  2012-2019       *
*                                      *
*     Solutions that Move the World    *
*                                      *
*  CITY....   0  INTERSECTION..     0  *
*                                      *
* SOFTWARE..................... 32.67.30 *
*                                      *
*                                      *
*                                      *
* CONFIG.........................L3000 *
****************************************
```

SOFTWARE MODULES

NAME	PART NUMBER	VERSION
EB U-BOOT	119-1046-205	05.05.00
O/S	119-1047-215	06.15.00
APPLICATION	119-1051-267	32.67.30
CONFIGURATION	100-1049-001	L3000,19
EB CONTROLLER	119-1049-208	07.08.00
BGC CONTROLLER	140-1020-208	09.08.00
BGC RESOURCE	140-1033-203	18.03.00
PIO CONTROLLER	140-1021-204	10.04.00
PS CONTROLLER	140-1022-204	11.04.00
AGC U-BOOT	140-1023-200	12.00.05
AGC O/S	140-1024-212	13.12.00
AGC APPLICATION	140-1025-267	14.67.30
TELEMETRY	N/A	N/A

CONTROLLER SEQUENCE [1]
SEQUENCE COMMANDS . HW ALT SEQ ENA. NO

```
    01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
BC-B  -  B  -  B  -  B  -  B  -  -  -  -  -  -  -  B
R1-| 1  2| 3  4| 9 10|13 14| .  .  .  .  .  .  .  .|
R2-| 5  6| 7  8|11 12|15 16| .  .  .  .  .  .  .  .|
R3-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
R4-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
```

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
BC=BARRIER CONTROL, VALUES: B,C
B=BARRIER MODE
C=COMPATIBILITY MODE

CONTROLLER SEQUENCE [2]
SEQUENCE COMMANDS . HW ALT SEQ ENA. NO

```
    01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
BC-B  -  B  -  B  -  B  -  B  -  -  -  -  -  -  -  B
R1-| 2  1| 3  4|10  9|13 14| .  .  .  .  .  .  .  .|
R2-| 5  6| 7  8|11 12|15 16| .  .  .  .  .  .  .  .|
R3-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
R4-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
```

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
BC=BARRIER CONTROL, VALUES: B,C
B=BARRIER MODE
C=COMPATIBILITY MODE

CONTROLLER SEQUENCE [3]
SEQUENCE COMMANDS . HW ALT SEQ ENA. NO

```
    01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
BC-B  -  B  -  B  -  B  -  B  -  -  -  -  -  -  -  B
R1-| 1  2| 4  3| 9 10|14 13| .  .  .  .  .  .  .  .|
R2-| 5  6| 7  8|11 12|15 16| .  .  .  .  .  .  .  .|
R3-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
R4-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
```

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
BC=BARRIER CONTROL, VALUES: B,C
B=BARRIER MODE
C=COMPATIBILITY MODE

CONTROLLER SEQUENCE [4]
SEQUENCE COMMANDS . HW ALT SEQ ENA. NO

```
    01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
BC-B  -  B  -  B  -  B  -  B  -  -  -  -  -  -  -  B
R1-| 2  1| 4  3|10  9|14 13| .  .  .  .  .  .  .  .|
R2-| 5  6| 7  8|11 12|15 16| .  .  .  .  .  .  .  .|
R3-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
R4-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
```

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
BC=BARRIER CONTROL, VALUES: B,C
B=BARRIER MODE
C=COMPATIBILITY MODE

```
CONTROLLER SEQUENCE [ 5]
SEQUENCE COMMANDS   . HW ALT SEQ ENA. NO
    01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
BC-B  -  B  -  B  -  B  -  B  -  -  -  -  -  -  -  B
R1-| 1  2| 3  4| 9 10|13 14| .  .  .  .  .  .  .  .|
R2-| 6  5| 7  8|12 11|15 16| .  .  .  .  .  .  .  .|
R3-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
R4-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
BC=BARRIER CONTROL, VALUES: B,C
B=BARRIER MODE
C=COMPATIBILITY MODE


CONTROLLER SEQUENCE [ 6]
SEQUENCE COMMANDS   . HW ALT SEQ ENA. NO
    01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
BC-B  -  B  -  B  -  B  -  B  -  -  -  -  -  -  -  B
R1-| 2  1| 3  4|10  9|13 14| .  .  .  .  .  .  .  .|
R2-| 6  5| 7  8|12 11|15 16| .  .  .  .  .  .  .  .|
R3-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
R4-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
BC=BARRIER CONTROL, VALUES: B,C
B=BARRIER MODE
C=COMPATIBILITY MODE


CONTROLLER SEQUENCE [ 7]
SEQUENCE COMMANDS   . HW ALT SEQ ENA. NO
    01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
BC-B  -  B  -  B  -  B  -  B  -  -  -  -  -  -  -  B
R1-| 1  2| 4  3| 9 10|14 13| .  .  .  .  .  .  .  .|
R2-| 6  5| 7  8|12 11|15 16| .  .  .  .  .  .  .  .|
R3-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
R4-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
BC=BARRIER CONTROL, VALUES: B,C
B=BARRIER MODE
C=COMPATIBILITY MODE


CONTROLLER SEQUENCE [ 8]
SEQUENCE COMMANDS   . HW ALT SEQ ENA. NO
    01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
BC-B  -  B  -  B  -  B  -  B  -  -  -  -  -  -  -  B
R1-| 2  1| 4  3|10  9|14 13| .  .  .  .  .  .  .  .|
R2-| 6  5| 7  8|12 11|15 16| .  .  .  .  .  .  .  .|
R3-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
R4-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
BC=BARRIER CONTROL, VALUES: B,C
B=BARRIER MODE
C=COMPATIBILITY MODE


CONTROLLER SEQUENCE [ 9]
SEQUENCE COMMANDS   . HW ALT SEQ ENA. NO
    01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
BC-B  -  B  -  B  -  B  -  B  -  -  -  -  -  -  -  B
R1-| 1  2| 3  4| 9 10|13 14| .  .  .  .  .  .  .  .|
R2-| 5  6| 8  7|11 12|16 15| .  .  .  .  .  .  .  .|
R3-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
R4-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
BC=BARRIER CONTROL, VALUES: B,C
B=BARRIER MODE
C=COMPATIBILITY MODE


CONTROLLER SEQUENCE [10]
SEQUENCE COMMANDS   . HW ALT SEQ ENA. NO
    01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
BC-B  -  B  -  B  -  B  -  B  -  -  -  -  -  -  -  B
R1-| 2  1| 3  4|10  9|13 14| .  .  .  .  .  .  .  .|
R2-| 5  6| 8  7|11 12|16 15| .  .  .  .  .  .  .  .|
R3-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
R4-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
BC=BARRIER CONTROL, VALUES: B,C
B=BARRIER MODE
C=COMPATIBILITY MODE


CONTROLLER SEQUENCE [11]
SEQUENCE COMMANDS   . HW ALT SEQ ENA. NO
    01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
BC-B  -  B  -  B  -  B  -  B  -  -  -  -  -  -  -  B
R1-| 1  2| 4  3| 9 10|14 13| .  .  .  .  .  .  .  .|
R2-| 5  6| 8  7|11 12|16 15| .  .  .  .  .  .  .  .|
R3-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
R4-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
```

```
BC=BARRIER CONTROL, VALUES: B,C
B=BARRIER MODE
C=COMPATIBILITY MODE


CONTROLLER SEQUENCE [12]
SEQUENCE COMMANDS   . HW ALT SEQ ENA. NO
    01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
BC-B  -  B  -  B  -  B  -  B  -  -  -  -  -  -  -  B
R1-| 2  1| 4  3|10  9|14 13| .  .  .  .  .  .  .  .|
R2-| 5  6| 8  7|11 12|16 15| .  .  .  .  .  .  .  .|
R3-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
R4-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
BC=BARRIER CONTROL, VALUES: B,C
B=BARRIER MODE
C=COMPATIBILITY MODE


CONTROLLER SEQUENCE [13]
SEQUENCE COMMANDS   . HW ALT SEQ ENA. NO
    01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
BC-B  -  B  -  B  -  B  -  B  -  -  -  -  -  -  -  B
R1-| 1  2| 3  4| 9 10|13 14| .  .  .  .  .  .  .  .|
R2-| 6  5| 8  7|12 11|16 15| .  .  .  .  .  .  .  .|
R3-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
R4-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
BC=BARRIER CONTROL, VALUES: B,C
B=BARRIER MODE
C=COMPATIBILITY MODE


CONTROLLER SEQUENCE [14]
SEQUENCE COMMANDS   . HW ALT SEQ ENA. NO
    01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
BC-B  -  B  -  B  -  B  -  B  -  -  -  -  -  -  -  B
R1-| 2  1| 3  4|10  9|13 14| .  .  .  .  .  .  .  .|
R2-| 6  5| 8  7|12 11|16 15| .  .  .  .  .  .  .  .|
R3-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
R4-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
BC=BARRIER CONTROL, VALUES: B,C
B=BARRIER MODE
C=COMPATIBILITY MODE


CONTROLLER SEQUENCE [15]
SEQUENCE COMMANDS   . HW ALT SEQ ENA. NO
    01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
BC-B  -  B  -  B  -  B  -  B  -  -  -  -  -  -  -  B
R1-| 1  2| 4  3| 9 10|14 13| .  .  .  .  .  .  .  .|
R2-| 6  5| 8  7|12 11|16 15| .  .  .  .  .  .  .  .|
R3-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
R4-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
BC=BARRIER CONTROL, VALUES: B,C
B=BARRIER MODE
C=COMPATIBILITY MODE


CONTROLLER SEQUENCE [16]
SEQUENCE COMMANDS   . HW ALT SEQ ENA. NO
    01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
BC-B  -  B  -  B  -  B  -  B  -  -  -  -  -  -  -  B
R1-| 2  1| 4  3|10  9|14 13| .  .  .  .  .  .  .  .|
R2-| 6  5| 8  7|12 11|16 15| .  .  .  .  .  .  .  .|
R3-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|
R4-| .  .| .  .| .  .| .  .| .  .  .  .  .  .  .  .|

R1-R4=RING 1-4, DATA ENTRY, PHASES 1-16
BC=BARRIER CONTROL, VALUES: B,C
B=BARRIER MODE
C=COMPATIBILITY MODE



 SCREEN IS NOT AVAILABLE IN BARRIER MODE


ENABLE BACKUP PREVENT
TMG\BKUP 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
       1   . . . . . . . . . . . . . . . .
       2 X   . . . . . . . . . . . . . . .
       3 . .   . . . . . . . . . . . . . .
       4 . . .   . . . . . . . . . . . . .
       5 . . . .   . . . . . . . . . . . .
       6 . . . . X   . . . . . . . . . . .
       7 . . . . . .   . . . . . . . . . .
       8 . . . . . . .   . . . . . . . . .
       9 . . . . . . . .   . . . . . . . .
      10 . . . . . . . . .   . . . . . . .
      11 . . . . . . . . . .   . . . . . .
      12 . . . . . . . . . . .   . . . . .
```

```
     13 . . . . . .   . . .
     14 . . . . . .   . . .
     15 . . . . . .   . . .
     16 . . . . . .
```

```
SIMULTANEOUS GAP PHASES
GAP\PH   1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
       1   . . . . . .
       2 .   . . . . . .
       3 . .   . . . . . .
       4 . . .   . . . . . .
       5 . . . .   . . . . . .
       6 . . . . .   . . . . . .
       7 . . . . . .   . . . . . .
       8 . . . . . .   . . . . . .
       9 . . . . . .   . . . . . .
      10 . . . . . .   . . . . . .
      11 . . . . . .   . . . . . .
      12 . . . . . .   . . . . . .
      13 . . . . . .   . . . . . .
      14 . . . . . .   . . . . . .
      15 . . . . . .   . . . . . .
      16 . . . . . .
DISABLE. . . . . .
```

```
PHASES IN USE / EXCLUSIVE PED
          PHASE  1  2  3  4  5  6  7  8
IN USE.......     X  X  .  X  X  X  .  X
EXCLUSIVE PED     .  .  .  .  .  .  .  .

          PHASE  9 10 11 12 13 14 15 16
IN USE.......     .  .  .  .  .  .  .  .
EXCLUSIVE PED     .  .  .  .  .  .  .  .
```

```
LD SWITCH ASSIGN
    PHASE      DIMMING ---FLASH---
    /OVLP TYPE R Y G D PWR AUT TGR
1    1    V    . . . +  A   R   .
2    2    V    . . . +  A   R   X
3    3    V    . . . +  A   R   .
4    4    V    . . . +  A   R   X
5    5    V    . . . -  A   R   .
6    6    V    . . . -  A   R   X
7    7    V    . . . -  A   R   .
8    8    V    . . . -  A   R   X
9    2    P    . . . +  A   .   .
10   4    P    . . . +  A   .   .
11   6    P    . . . -  A   .   .
12   8    P    . . . -  A   .   .
13   1    .    . . . +  A   R   .
14   2    .    . . . -  A   R   X
15   3    .    . . . +  A   R   .
16   4    .    . . . -  A   R   X
```

```
SDLC PORT 1 CONFIG
            BIU  1  2  3  4  5  6  7  8
TERM & FACILITY  X  X  .  .  .  .  .  .
DETECTOR RACK    X  .  X  .  .  .  .  .

---MMU ALWAYS ENABLED FOR TS2 TYPE 1----
ENABLE MMU EXTENDED STATUS.......... YES
ENABLE SDLC STOP TIME...............  NO
ENABLE 3 CRITICAL RFEs LOCKUP....... YES
MMU TO CU SDLC EXTERNAL START... ENABLED
```

```
                CAUTION

 CHANGES TO MMU PROGRAMMING SCREEN MAY
   RESULT IN IMMEDIATE CABINET FLASH

       PRESS [ENTER] TO CONTINUE
```

```
COLOR CHECK ENABLE
ENABLE COLOR CHECK..X

MMU/LS  1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
RED      . X . . . X . X X X X X . . . .
YELLOW   X X . . . X . X . . . . . . . .
GREEN    X X . . . X . X X X X X . . . .
```

```
ETHERNET           MAC 00:04:81:07:20:43
DHCP ENABLE.....................     NO
CONTROLLER IP........... 172. 16.  2.115
SUBNET MASK............. 255.255.  0.  0
DEFAULT GATEWAY IP......  10.104.  0.  1
```

```
SERVER IP ..............  172. 16.  0.254
LINK SPEED/DUPLEX.............  100/FULL
ENET-2 IP (READ-ONLY).......172.30.30.30
DROP-OUT TIME.....................   300
WEB SERVER ENABLE.................   YES


COMM PORT 2
ENABLE.........  NO PROTOCOL.   GPS NMEA
BIT RATE.....  4800
D/P/S........ 8/N/1
DUPLEX........ HALF
FLOW CONTROL...  NO


NOT INSTALLED      COMM MODULE-     AUTO




  CONTROLLER DOES NOT SUPPORT THIS PORT


NOT INSTALLED      COMM MODULE-     AUTO




  CONTROLLER DOES NOT SUPPORT THIS PORT


NTCIP
BACKUP TIME.......................     0
ETHERNET UDP PORT.................   501
ETHERNET PRIORITY..................... 1
PORT C50S PRIORITY.................... 4
PORT C21S PRIORITY.................... 2
PORT C22S PRIORITY.................... 3


ECPIP
CONTROLLER ADDRESS...................  3
EXPANDED SYSTEM DETECTOR ADDRESS.....  0

SYSTEM DETECTOR ASSIGNMENT:
SYSTEM DET  1  2  3  4  5  6  7  8
LOCAL DET   0  0  0  0  0  0  0  0
SYSTEM DET  9 10 11 12 13 14 15 16
LOCAL DET   0  0  0  0  0  0  0  0


WIRELESS CONFIGURATION


WIRELESS CHANNEL NUMBER                1

WIRELESS ACCESS CODE


PEER TO PEER SETUP
LOCAL PORT..........  503
PEER   PORT      IP ADDRESS      TIMEOUT
  1     503     0.  0.  0.  0        1
  2     503     0.  0.  0.  0        1
  3     503     0.  0.  0.  0        1
  4     503     0.  0.  0.  0        1
  5     503     0.  0.  0.  0        1
  6     503     0.  0.  0.  0        1
  7     503     0.  0.  0.  0        1
  8     503     0.  0.  0.  0        1
  9     503     0.  0.  0.  0        1
 10     503     0.  0.  0.  0        1
 11     503     0.  0.  0.  0        1
 12     503     0.  0.  0.  0        1
 13     503     0.  0.  0.  0        1
 14     503     0.  0.  0.  0        1
 15     503     0.  0.  0.  0        1


EVENT LOGGING
RFEs (MMU/TF).. YES 3 RFEs >24 H.... YES
MMU FL FAULTS.. YES LOCAL FLASH..... YES
RFEs (DET/TEST)  NO DETECTOR ERRORS. YES
COORD ERRORS...  NO CTR DOWNLOAD....  NO
PREEMPT........ YES TSP.............  NO
POWER ON/OFF... YES LOW BATTERY..... YES
ACCESS......... YES DATA CHANGE..... YES
ONLINE/OFFLINE. YES HI-RES MOE......  NO
ALARM 1........ YES ALARM 2......... YES
ALARM 3........  NO ALARM 4.........  NO
ALARM 5........  NO ALARM 6.........  NO
ALARM 7........  NO ALARM 8.........  NO
ALARM 9........  NO ALARM 10........  NO
ALARM 11.......  NO ALARM 12........  NO
ALARM 13.......  NO ALARM 14........  NO
ALARM 15.......  NO ALARM 16........ YES
```

```
ADMINISTRATION

ENABLE CU/CABINET INTERLOCK CRC....   NO
CU/CABINET INTERLOCK CRC VALUE..... 0000
CU/CABINET INTERLOCK HW VALUE...... 0000

REQUEST DOWNLOAD CONTROLLER DATA...   NO
CONTROLLER DATABASE CRC ........... BF6D
AUTOMATIC BACKUP TO DATAKEY/SD CARD. YES


DISPLAY OPTIONS              COBALT-1000

KEY CLICK ENABLE.....................  NO

SWITCH TO GRAPHICS MODE.............   NO

LED MODE........................... AUTO

MAIN STATUS DISPLAY MODE...........BASIC

TRANS MODE POP-UP DISABLE............ NO


SECURITY ACCESS -SELECT NAME-
01 administrator--  02 public---------
03 public---------  04 public---------
05 public---------  06 public---------
07 public---------  08 public---------
09 public---------  10 public---------
11 public---------  12 public---------
13 public---------  14 public---------
15 public---------  16 public---------
17 public---------  18 public---------
19 public---------  20 public---------
21 public---------  22 public---------
23 public---------  24 public---------
25 public---------  26 public---------
27 public---------  28 public---------
29 public---------  30 public---------
31 public---------  32 public---------
33 public---------  34 public---------
35 public---------  36 public---------
37 public---------  38 public---------
39 public---------  40 public---------
41 public---------  42 public---------
43 public---------  44 public---------
45 public---------  46 public---------
47 public---------  48 public---------
49 public---------  50 public---------



****************************************
*   ECONOLITE CONTROL PRODUCTS, INC.   *
*                                      *
*              COBALT-1000             *
*       Copyright (C)  2012-2019       *
*                                      *
*     Solutions that Move the World    *
*                                      *
*  CITY....   0  INTERSECTION..     0  *
*                                      *
* SOFTWARE..................... 32.67.30 *
*                                      *
*                                      *
*                                      *
* CONFIG.........................L3000 *
****************************************


SOFTWARE MODULES
NAME            PART NUMBER   VERSION

EB U-BOOT       119-1046-205  05.05.00
O/S             119-1047-215  06.15.00
APPLICATION     119-1051-267    32.67.30
CONFIGURATION   100-1049-001    L3000,19
EB CONTROLLER   119-1049-208  07.08.00
BGC CONTROLLER  140-1020-208  09.08.00
BGC RESOURCE    140-1033-203  18.03.00
PIO CONTROLLER  140-1021-204  10.04.00
PS CONTROLLER   140-1022-204  11.04.00
AGC U-BOOT      140-1023-200  12.00.05
AGC O/S         140-1024-212  13.12.00
AGC APPLICATION 140-1025-267  14.67.30
TELEMETRY              N/A         N/A




TIMING PLAN [  1] PHASE DATA
  PHASE    1   2   3   4   5   6   7   8   9  10  11  12  13  14  15  16
MIN GRN    7  20   7  10   7  20   7  10   5   5   5   5   5   5   5   5
BK MGRN    0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
```

CS MGRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DLY GRN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WALK	0	7	0	7	0	7	0	7	0	10	0	10	0	10	0	10
WALK2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WLK MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PED CLR	0	24	0	34	0	24	0	34	0	16	0	16	0	16	0	16
PD CLR2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PC MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PED CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VEH EXT	3.0	5.5	3.5	3.5	3.5	5.5	3.5	3.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
VH EXT2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX1	20	55	0	22	0	55	0	22	35	35	35	35	35	35	35	35
MAX2	20	60	0	30	12	60	0	30	40	40	40	40	40	40	40	40
MAX3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM STP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOW	3.0	4.2	3.0	3.3	3.0	4.2	3.0	3.3	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	1.0	2.6	1.0	4.1	1.0	2.6	1.0	4.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
RED MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED RVT	4.0	4.0	2.0	4.0	2.0	4.0	2.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ACT B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SEC/ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX INT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TIME B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CARS WT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDUC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTREDUC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MIN GAP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TMG VEH OVLP...[A] TYPE:OTHER/ECONOLITE

TMG VEH OVLP...[B] TYPE:OTHER/ECONOLITE

TMG VEH OVLP...[C] TYPE:OTHER/ECONOLITE

TMG VEH OVLP...[D] TYPE:OTHER/ECONOLITE

TMG VEH OVLP...[E] TYPE:OTHER/ECONOLITE

TMG VEH OVLP...[F] TYPE:OTHER/ECONOLITE

TMG VEH OVLP...[G] TYPE:OTHER/ECONOLITE

TMG VEH OVLP...[H] TYPE:OTHER/ECONOLITE

TMG VEH OVLP...[I] TYPE:OTHER/ECONOLITE

TMG VEH OVLP...[J] TYPE:OTHER/ECONOLITE

TMG VEH OVLP...[K] TYPE:OTHER/ECONOLITE

TMG VEH OVLP...[L] TYPE:OTHER/ECONOLITE

TMG VEH OVLP...[M] TYPE:OTHER/ECONOLITE

TMG VEH OVLP...[N] TYPE:OTHER/ECONOLITE

TMG VEH OVLP...[O] TYPE:OTHER/ECONOLITE

TMG VEH OVLP...[P] TYPE:OTHER/ECONOLITE

VEH/PED OVERLAPS
INCLUDED 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
VEH OL A . . . . . .
VEH OL B . . . . . .
VEH OL C . . . . . .
VEH OL D . . . . . .
VEH OL E . . . . . .
VEH OL F . . . . . .
VEH OL G . . . . . .
VEH OL H . . . . . .
VEH OL I . . . . . .
VEH OL J . . . . . .
VEH OL K . . . . . .
VEH OL L . . . . . .
VEH OL M . . . . . .
VEH OL N . . . . . .
VEH OL O . . . . . .
VEH OL P . . . . . .
PD OL 01 . . . . . .
PD OL 02 . . . . . .
PD OL 03 . . . . . .
PD OL 04 . . . . . .

```
PD OL 05 . . . . . .
PD OL 06 . . . . . .
PD OL 07 . . . . . .
PD OL 08 . . . . . .
PD OL 09 . . . . . .
PD OL 10 . . . . . .
PD OL 11 . . . . . .
PD OL 12 . . . . . .
PD OL 13 . . . . . .
PD OL 14 . . . . . .
PD OL 15 . . . . . .
PD OL 16 . . . . . .


GUARANTEED MINIMUM TIME DATA
  PHASE  A01 B02 C03 D04 E05 F06 G07 H08
MIN GRN    5   5   5   5   5   5   5   5
WALK       0   0   0   0   0   0   0   0
PED CLR    7   7   7   7   7   7   7   7
YELLOW   3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0
RED CLR  0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
OVL GRN    5   5   5   5   5   5   5   5
  PHASE  I09 J10 K11 L12 M13 N14 O15 P16
MIN GRN    5   5   5   5   5   5   5   5
WALK       0   0   0   0   0   0   0   0
PED CLR    7   7   7   7   7   7   7   7
YELLOW   3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0
RED CLR  0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
OVL GRN    5   5   5   5   5   5   5   5


START/FLASH DATA
------START UP--------------------------
        1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
PHASE   . . . Y . . . Y . . . . . . . .
        A B C D E F G H I J K L M N O P
OVERLAP  X X X X . . . . . . . . . . . .
FLASH>MON.YES FL TIME..  0 ALL RED...  0
PWR START SEQ..  1 MUTCD-> NO
------AUTOMATIC FLASH-----------------------
   PHASE 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
ENTRY    . X . . . X . . . . . . . . . .
EXIT     . X . . . X . . . . . . . . . .
OVERLAP  A B C D E F G H I J K L M N O P
EXIT     X X X X . . . . . . . . . . . .
FLASH>MON.YES EXIT FL.  W MIN FLASH.   8
MINIMUM RECALL. NO  CYCLE THRU PHASE. NO


CONTROLLER OPTIONS
```

```
PED CLEAR PROTECT . UNIT RED REVERT  2.0
MUTCD 3 SECONDS DONT WALK ..........  NO
          PHASE  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16
FLASHING GRN PH.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .
GUAR PASSAGE....  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .
NON-ACT I.......  .  X  .  .  .  X  .  .  .  .  .  .  .  .  .  .
NON-ACT II......  .  .  .  X  .  .  .  X  .  .  .  .  .  .  .  .
DUAL ENTRY......  .  X  .  X  .  X  .  X  .  .  .  .  .  .  .  .
COND SERVICE....  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .
COND RESERVICE..  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .
PED RESERVICE...  .  X  .  .  .  X  .  .  .  .  .  .  .  .  .  .
REST IN WALK....  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .
FLASHING WALK...  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .
PED CLR>YELLOW..  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .
PED CLR>RED.....  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .
IGRN + VEH EXT..  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .


PRE-TIMED MODE

ENABLE PRE-TIMED MODE.............  NO
FREE INPUT DISABLES PRE-TIMED..... NO
   PHASE 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
PRETIMED . . . . . .


PHASE RECALL OPTIONS
TIMING PLAN NUMBER [ 1]
   PHASE 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
LOCK DET . . . . . X X X X X X X X X X
VE RCALL . X . . . X . . . . . . . . . .
PD RCALL . . . . . .
MX RCALL . . . . . .
SF RCALL . . . . . .
NO REST  . . . . . .
AI CALC  . . . . . .



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*     Solutions that Move the World    *
*                                      *
*  CITY....   0  INTERSECTION..     0  *
*                                      *
```

```
* SOFTWARE................... 32.67.30 *
*                                       *
*                                       *
*                                       *
* CONFIG.........................L3000 *
*****************************************


SOFTWARE MODULES
NAME             PART NUMBER   VERSION

EB U-BOOT        119-1046-205  05.05.00
O/S              119-1047-215  06.15.00
APPLICATION      119-1051-267    32.67.30
CONFIGURATION    100-1049-001    L3000,19
EB CONTROLLER    119-1049-208  07.08.00
BGC CONTROLLER   140-1020-208  09.08.00
BGC RESOURCE     140-1033-203  18.03.00
PIO CONTROLLER   140-1021-204  10.04.00
PS CONTROLLER    140-1022-204  11.04.00
AGC U-BOOT       140-1023-200  12.00.05
AGC O/S          140-1024-212  13.12.00
AGC APPLICATION 140-1025-267  14.67.30
TELEMETRY               N/A         N/A




COORD OPTIONS
MANUAL PATTERN. AUTO ECPI COORD..... YES
SYSTEM SOURCE..  TBC SYSTEM FORMAT.. STD
SPLITS IN....PERCENT OFFSET IN...PERCENT
TRANSITION..  SMOOTH MAX SELECT.. MAXINH
DWELL/ADD TIME..   0 ENABLE MAN SYNC. NO
DLY COORD WK-LZ.  NO FORCE OFF...  FLOAT
OFFSET REF....  LEAD CAL USE PED TM.  NO
PED RECALL......  NO PED RESERVE.... YES
LOCAL ZERO OVRD.  NO FO ADD INI GRN.  NO
RE-SYNC COUNT...   0 MULTISYNC......  NO


COORDINATOR PATTERN [  1]
USE SPLIT PATTERN.  1 SPLIT SUM ....100%
TS2 (PAT-OFF)..   0-1
CYCLE..........  130s STD (COS)......111
OFFSET VAL.....    7% DWELL/ADD TIME.  0
ACTUATED COORD... YES TIMING PLAN....  0
ACT WALK REST....  NO SEQUENCE........ 0
PHASE RESRVCE....  NO ACTION PLAN....  0
MAX SELECT.....MAXINH FORCE OFF....FLOAT
SPLIT PREFERENCE PHASES
 PHASE[s]  1   2   3   4   5   6   7   8
SPT[  1]  10  54   0  36   0  64   0  36
PREF 1...  0   0   0   0   0   0   0   0
PREF 2...  0   0   0   0   0   0   0   0
SPLT EXT...0%. 0%  0%  0%
VEH PERM.  0%  0%  0%  DISP
RING DISP  -   0%  0%  0% (RING 2-4)
 PHASE[s]  9  10  11  12  13  14  15  16
SPT[  1]   0   0   0   0   0   0   0   0
PREF 1...  0   0   0   0   0   0   0   0
PREF 2...  0   0   0   0   0   0   0   0

SPLIT DEMAND PTRN.  0   0 XART PTRN.   0
PHASE..  1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
COORD... . X . . . X . . . . . . . . . .
VE RCALL . . . . . . . . . . . . . . . .
PD RCALL . . . . . . . . . . . . . . . .
MX RCALL . . . . . . . . . . . . . . . .
OMIT.... . . . . . . . . X X X X X X X X
SF OUT.. . . . . . . . . (1-8)


COORDINATOR PATTERN [  2]
USE SPLIT PATTERN.  2 SPLIT SUM ....100%
TS2 (PAT-OFF)..   0-2
CYCLE..........  120s STD (COS)......121
OFFSET VAL.....   19% DWELL/ADD TIME.  0
ACTUATED COORD... YES TIMING PLAN....  0
ACT WALK REST....  NO SEQUENCE........ 0
PHASE RESRVCE....  NO ACTION PLAN....  0
MAX SELECT.....  NONE FORCE OFF.... NONE
SPLIT PREFERENCE PHASES
 PHASE[s]  1   2   3   4   5   6   7   8
SPT[  2]  12  50   0  38   0  62   0  38
PREF 1...  0   0   0   0   0   0   0   0
PREF 2...  0   0   0   0   0   0   0   0
SPLT EXT...0%. 0%  0%  0%
VEH PERM.  0%  0%  0%  DISP
RING DISP  -   0%  0%  0% (RING 2-4)
 PHASE[s]  9  10  11  12  13  14  15  16
SPT[  2]   0   0   0   0   0   0   0   0
PREF 1...  0   0   0   0   0   0   0   0
PREF 2...  0   0   0   0   0   0   0   0

SPLIT DEMAND PTRN.  0   0 XART PTRN.   0
PHASE..  1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
COORD... . X . . . X . . . . . . . . . .
```

```
VE RCALL . . . . . .
PD RCALL . . . . . .
MX RCALL . . . . . .
OMIT.... . . . . . X X X X X X X X
SF OUT.. . . . . (1-8)


COORDINATOR PATTERN [  3]
USE SPLIT PATTERN.  3 SPLIT SUM ....100%
TS2 (PAT-OFF)..   0-3
CYCLE.....  130s STD (COS).....131
OFFSET VAL.....   28% DWELL/ADD TIME.  0
ACTUATED COORD... YES TIMING PLAN....  0
ACT WALK REST....  NO SEQUENCE..... 0
PHASE RESRVCE....  NO ACTION PLAN....  0
MAX SELECT.....  NONE FORCE OFF.... NONE
SPLIT PREFERENCE PHASES
 PHASE[s]  1   2   3   4   5   6   7   8
SPT[  3]  20  44   0  36   9  55   0  36
PREF 1...  0   0   0   0   0   0   0   0
PREF 2...  0   0   0   0   0   0   0   0
SPLT EXT...0%. 0%  0%  0%
VEH PERM.  0%  0%  0%  DISP
RING DISP  -   0%  0%  0% (RING 2-4)
 PHASE[s]  9  10  11  12  13  14  15  16
SPT[  3]   0   0   0   0   0   0   0   0
PREF 1...  0   0   0   0   0   0   0   0
PREF 2...  0   0   0   0   0   0   0   0

SPLIT DEMAND PTRN.  0   0 XART PTRN.   0
PHASE..  1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
COORD... . X . . . X . . . . . . . . . .
VE RCALL . . . . . .
PD RCALL . . . . . .
MX RCALL . . . . . .
OMIT.... . . . . . X X X X X X X X
SF OUT.. . . . . (1-8)


COORDINATOR PATTERN [  4]
USE SPLIT PATTERN.  4 SPLIT SUM ....100%
TS2 (PAT-OFF)..   1-1
CYCLE.....  100s STD (COS).....141
OFFSET VAL.....   74% DWELL/ADD TIME.  0
ACTUATED COORD... YES TIMING PLAN....  0
ACT WALK REST....  NO SEQUENCE..... 0
PHASE RESRVCE....  NO ACTION PLAN....  0
MAX SELECT.....  NONE FORCE OFF.... NONE
SPLIT PREFERENCE PHASES
 PHASE[s]  1   2   3   4   5   6   7   8
SPT[  4]  11  44   0  45   0  55   0  45
PREF 1...  0   0   0   0   0   0   0   0
PREF 2...  0   0   0   0   0   0   0   0
SPLT EXT...0%. 0%  0%  0%
VEH PERM.  0%  0%  0%  DISP
RING DISP  -   0%  0%  0% (RING 2-4)
 PHASE[s]  9  10  11  12  13  14  15  16
SPT[  4]   0   0   0   0   0   0   0   0
PREF 1...  0   0   0   0   0   0   0   0
PREF 2...  0   0   0   0   0   0   0   0

SPLIT DEMAND PTRN.  0   0 XART PTRN.   0
PHASE..  1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
COORD... . X . . . X . . . . . . . . . .
VE RCALL . . . . . .
PD RCALL . . . . . .
MX RCALL . . . . . .
OMIT.... . . . . . X X X X X X X X
SF OUT.. . . . . (1-8)


SPLIT PATTERN [  1]
SPLIT SUM .....100%
 PHASE[s]  1   2   3   4   5   6   7   8
SPLIT     10  54   0  36   0  64   0  36

 PHASE[s]  9  10  11  12  13  14  15  16
SPLIT      0   0   0   0   0   0   0   0

PHASE..  1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
COORD... . X . . . X . . . . . . . . . .
VE RCALL . . . . . .
PD RCALL . . . . . .
MX RCALL . . . . . .
OMIT.... . . . . . X X X X X X X X


SPLIT PATTERN [  2]
SPLIT SUM .....100%
 PHASE[s]  1   2   3   4   5   6   7   8
SPLIT     12  50   0  38   0  62   0  38

 PHASE[s]  9  10  11  12  13  14  15  16
SPLIT      0   0   0   0   0   0   0   0

PHASE..  1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
COORD... . X . . . X . . . . . . . . . .
VE RCALL . . . . . .
PD RCALL . . . . . .
MX RCALL . . . . . .
```

```
OMIT.... . . . . . X X X X X X X X

SPLIT PATTERN [  3]
SPLIT SUM .....100%
 PHASE[s]  1   2   3   4   5   6   7   8
SPLIT     20  44   0  36   9  55   0  36

 PHASE[s]  9  10  11  12  13  14  15  16
SPLIT      0   0   0   0   0   0   0   0

PHASE..  1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
COORD... . X . . . X . . . . . . . . . .
VE RCALL . . . . . . . . . . . . . . . .
PD RCALL . . . . . . . . . . . . . . . .
MX RCALL . . . . . . . . . . . . . . . .
OMIT.... . . . . . X X X X X X X X

SPLIT PATTERN [  4]
SPLIT SUM .....100%
 PHASE[s]  1   2   3   4   5   6   7   8
SPLIT     11  44   0  45   0  55   0  45

 PHASE[s]  9  10  11  12  13  14  15  16
SPLIT      0   0   0   0   0   0   0   0

PHASE..  1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
COORD... . X . . . X . . . . . . . . . .
VE RCALL . . . . . . . . . . . . . . . .
PD RCALL . . . . . . . . . . . . . . . .
MX RCALL . . . . . . . . . . . . . . . .
OMIT.... . . . . . X X X X X X X X

AUTO PERM MINIMUM GREEN (SECONDS)

   PHASE  1   2   3   4   5   6   7   8
MIN GRN.  0   0   0   0   0   0   0   0

   PHASE  9  10  11  12  13  14  15  16
MIN GRN.  0   0   0   0   0   0   0   0

SPLIT DEMAND
  PHASES 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
DEMAND 1 . . . . . . . . . . . . . . . .
DEMAND 2 . . . . . . . . . . . . . . . .
          DEMAND  1     2
DETECTOR.........  0     0
```

```
CALL TIME (SEC)..  0     0
CYCLE COUNT......  0     0



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*     Solutions that Move the World    *
*                                      *
*  CITY....   0  INTERSECTION..     0  *
*                                      *
* SOFTWARE..................... 32.67.30 *
*                                      *
*                                      *
*                                      *
* CONFIG.........................L3000 *
****************************************


SOFTWARE MODULES
NAME            PART NUMBER   VERSION

EB U-BOOT       119-1046-205  05.05.00
O/S             119-1047-215  06.15.00
APPLICATION     119-1051-267    32.67.30
CONFIGURATION   100-1049-001    L3000,19
EB CONTROLLER   119-1049-208  07.08.00
BGC CONTROLLER  140-1020-208  09.08.00
BGC RESOURCE    140-1033-203  18.03.00
PIO CONTROLLER  140-1021-204  10.04.00
PS CONTROLLER   140-1022-204  11.04.00
AGC U-BOOT      140-1023-200  12.00.05
AGC O/S         140-1024-212  13.12.00
AGC APPLICATION 140-1025-267  14.67.30
TELEMETRY              N/A         N/A



PREEMPT PLAN [  1]    ENABLE.... NO
 VEH/PED 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 OVERLAP A B C D E F G H I J K L M N O P
TRKCLR V . . . . . . . . . . . . . . . .
```

```
TRKCLR O . . . . . .
ENA TRL  X X X X X X X X X X X X X X X X
DWEL VEH . . . . . .
DWEL PED . . . . . .
DWEL OLP . . . . . .
CYC VEH  . . . . . .
CYC PED  . . . . . .
CYC OLP  . . . . . .
EXIT PH  . . . . . .
EXIT CAL . . . . . .
SP FUNC  . . . . . .

ENABLE...  NO|PMT OVRIDE.X|INTERLOCK. NO
DET LOCK..  X|DELAY..    0|INHIBIT...  0
OVERIDE FL. .|DURATION   0|CLR>GRN... NO
TERM OLP.  NO|PC>YEL    NO|TERM PH    NO
PED DARK.. NO|TC RESRV  NO|DWELL FL  OFF
LINK PMT....0|X FLCOLR RED|EXIT OPT. OFF
X TMG PLN...0|RE-SERV..  0|FLT TYPE.HARD
FREE DUR PMT|R1  NO|R2  NO|R3  NO|R4  NO
--TIMING-----WALK|PED CL|MN GR| YEL| RED
ENTRANCE TM.    0|   255|    5| 4.0| 1.0
-----------MIN GR|EXT GR|MX GR| YEL| RED
TRACK CLEAR     0|     0|    0| 4.0| 1.0
-----------MIN DL|PMTEXT|MX TM| YEL| RED
DWL/CYC-EXIT    0|   0.0|    0| 4.0| 1.0
PMT ACTIVE OUT.. ON  PMT ACT DWELL... NO
OTHER - PRI PMT.OFF  NON-PRI PMT.....OFF
INH EXT TIME....0.0  PED PR RETURN...OFF
PRIORITY RETURN.OFF  QUEUE DELAY.... OFF
COND DELAY......OFF
PHASES     1   2   3   4   5   6   7   8
PR RTN%    0   0   0   0   0   0   0   0
PHASES     9  10  11  12  13  14  15  16
PR RTN%    0   0   0   0   0   0   0   0


PREEMPT PLAN [  3]    ENABLE....YES
 VEH/PED 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 OVERLAP A B C D E F G H I J K L M N O P
TRKCLR V . . . . . .
TRKCLR O . . . . . .
ENA TRL  X X X X X X X X X X X X X X X X
DWEL VEH . . . X . . . X . . . . . . . .
DWEL PED . . . . . .
DWEL OLP . . . . . .
CYC VEH  . . . . . .
CYC PED  . . . . . .
CYC OLP  . . . . . .
EXIT PH  . . . . . .
EXIT CAL . . . . . .
SP FUNC  . . . . . .

ENABLE... YES|PMT OVRIDE.X|INTERLOCK. NO
DET LOCK..  X|DELAY..    0|INHIBIT...  0
OVERIDE FL. .|DURATION  10|CLR>GRN... NO
TERM OLP.  NO|PC>YEL   YES|TERM PH    NO
PED DARK.. NO|TC RESRV  NO|DWELL FL  OFF
LINK PMT....0|X FLCOLR GRN|EXIT OPT. OFF
X TMG PLN...0|RE-SERV..  0|FLT TYPE.HARD
FREE DUR PMT|R1  NO|R2  NO|R3  NO|R4  NO
--TIMING-----WALK|PED CL|MN GR| YEL| RED
ENTRANCE TM.    0|     7|    5| 4.0| 1.0
-----------MIN GR|EXT GR|MX GR| YEL| RED
TRACK CLEAR     0|     0|    0| 4.0| 1.0
-----------MIN DL|PMTEXT|MX TM| YEL| RED
DWL/CYC-EXIT    0|   0.0|    0| 4.0| 1.0
PMT ACTIVE OUT.. ON  PMT ACT DWELL... NO
OTHER - PRI PMT.OFF  NON-PRI PMT.....OFF
INH EXT TIME....0.0  PED PR RETURN...OFF
PRIORITY RETURN.OFF  QUEUE DELAY.... OFF
COND DELAY......OFF
PHASES     1   2   3   4   5   6   7   8
PR RTN%    0   0   0   0   0   0   0   0
PHASES     9  10  11  12  13  14  15  16
PR RTN%    0   0   0   0   0   0   0   0


PREEMPT PLAN [  5]    ENABLE....YES
 VEH/PED 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 OVERLAP A B C D E F G H I J K L M N O P
TRKCLR V . . . . . .
TRKCLR O . . . . . .
ENA TRL  X X X X X X X X X X X X X X X X
DWEL VEH . X . . . X . . . . . . . . . .
DWEL PED . . . . . .
DWEL OLP . . . . . .
CYC VEH  . . . . . .
CYC PED  . . . . . .
CYC OLP  . . . . . .
EXIT PH  . . . . . .
EXIT CAL . . . . . .
SP FUNC  . . . . . .

ENABLE... YES|PMT OVRIDE.X|INTERLOCK. NO
DET LOCK..  X|DELAY..    0|INHIBIT...  0
OVERIDE FL. .|DURATION  10|CLR>GRN... NO
TERM OLP.  NO|PC>YEL   YES|TERM PH    NO
PED DARK.. NO|TC RESRV  NO|DWELL FL  OFF
LINK PMT....0|X FLCOLR GRN|EXIT OPT. OFF
```

```
X TMG PLN...0|RE-SERV..  0|FLT TYPE.HARD
FREE DUR PMT|R1  NO|R2  NO|R3  NO|R4  NO
--TIMING-----WALK|PED CL|MN GR| YEL| RED
ENTRANCE TM.    0|     7|    5| 4.0| 1.0
-----------MIN GR|EXT GR|MX GR| YEL| RED
TRACK CLEAR     0|     0|    0| 4.0| 1.0
-----------MIN DL|PMTEXT|MX TM| YEL| RED
DWL/CYC-EXIT    0|   0.0|    0| 4.0| 1.0
PMT ACTIVE OUT.. ON  PMT ACT DWELL... NO
OTHER - PRI PMT.OFF  NON-PRI PMT.....OFF
INH EXT TIME....0.0  PED PR RETURN...OFF
PRIORITY RETURN.OFF  QUEUE DELAY.... OFF
COND DELAY......OFF
PHASES     1   2   3   4   5   6   7   8
PR RTN%    0   0   0   0   0   0   0   0
PHASES     9  10  11  12  13  14  15  16
PR RTN%    0   0   0   0   0   0   0   0


PREEMPT PLAN [  6]    ENABLE....YES
 VEH/PED 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 OVERLAP A B C D E F G H I J K L M N O P
TRKCLR V . . . . . .
TRKCLR O . . . . . .
ENA TRL  X X X X X X X X X X X X X X X X
DWEL VEH . X . . . X . . . . . .
DWEL PED . . . . . .
DWEL OLP . . . . . .
CYC VEH  . . . . . .
CYC PED  . . . . . .
CYC OLP  . . . . . .
EXIT PH  . . . . . .
EXIT CAL . . . . . .
SP FUNC  . . . . . .

ENABLE... YES|PMT OVRIDE.X|INTERLOCK. NO
DET LOCK..  X|DELAY..    0|INHIBIT...  0
OVERIDE FL. .|DURATION  10|CLR>GRN... NO
TERM OLP.  NO|PC>YEL   YES|TERM PH    NO
PED DARK.. NO|TC RESRV  NO|DWELL FL  OFF
LINK PMT....0|X FLCOLR GRN|EXIT OPT. OFF
X TMG PLN...0|RE-SERV..  0|FLT TYPE.HARD
FREE DUR PMT|R1  NO|R2  NO|R3  NO|R4  NO
--TIMING-----WALK|PED CL|MN GR| YEL| RED
ENTRANCE TM.    0|     7|    5| 4.0| 1.0
-----------MIN GR|EXT GR|MX GR| YEL| RED
TRACK CLEAR     0|     0|    0| 4.0| 1.0
-----------MIN DL|PMTEXT|MX TM| YEL| RED
DWL/CYC-EXIT    0|   0.0|    0| 4.0| 1.0
PMT ACTIVE OUT.. ON  PMT ACT DWELL... NO
```

```
OTHER - PRI PMT.OFF  NON-PRI PMT.....OFF
INH EXT TIME....0.0  PED PR RETURN...OFF
PRIORITY RETURN.OFF  QUEUE DELAY.... OFF
COND DELAY......OFF
PHASES     1   2   3   4   5   6   7   8
PR RTN%    0   0   0   0   0   0   0   0
PHASES     9  10  11  12  13  14  15  16
PR RTN%    0   0   0   0   0   0   0   0


ENABLE PREEMPT FILTERING & TSP/SCP
FILTERED     SOLID         PULSING
INPUT  1 ...BYPASSED.. ...BYPASSED..
       2 ...BYPASSED.. ...BYPASSED..
       3 ..PREEMPT  3. ..PREEMPT  7.
       4 ..PREEMPT  4. ..PREEMPT  8.
       5 ..PREEMPT  5. ..PREEMPT  9.
       6 ..PREEMPT  6. ..PREEMPT 10.
       7 ...BYPASSED.. ...BYPASSED..
       8 ...BYPASSED.. ...BYPASSED..
       9 ...BYPASSED.. ...BYPASSED..
      10 ...BYPASSED.. ...BYPASSED..




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*                                      *
*     Solutions that Move the World    *
*                                      *
*  CITY....   0  INTERSECTION..     0  *
*                                      *
* SOFTWARE..................... 32.67.30 *
*                                      *
*                                      *
*                                      *
* CONFIG.........................L3000 *
****************************************


SOFTWARE MODULES
NAME            PART NUMBER   VERSION

EB U-BOOT       119-1046-205  05.05.00
O/S             119-1047-215  06.15.00
APPLICATION     119-1051-267    32.67.30
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CONFIGURATION   100-1049-001    L3000,19
EB CONTROLLER   119-1049-208  07.08.00
BGC CONTROLLER  140-1020-208  09.08.00
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AGC U-BOOT      140-1023-200  12.00.05
AGC O/S         140-1024-212  13.12.00
AGC APPLICATION 140-1025-267  14.67.30
TELEMETRY              N/A         N/A
```

```
CLOCK/CALENDAR DATA
05/31/2023          WED        09:25:17
ENA ACTION PLAN.  0
SYNC REF TIME.03:15 SYNC REF..  REF TIME
TIME FROM GMT...+00 DAY LIGHT SAVE.   NO
TIME RESET INPUT SET TIME..... 03:30:00
```

```
ACTION PLAN...[  1]
PATTERN.........   1 SYS OVERRIDE.... NO
TIMING PLAN..... 0 SEQUENCE........  0
VEH DETECTOR PLAN. 0 DET LOG........NONE
FLASH...........  -- RED REST........ NO
VEH DET DIAG PLN.. 0 PED DET DIAG PLN..0
DIMMING ENABLE..  NO PRIORITY RETURN. NO
PED PR RETURN.... NO QUEUE DELAY..... NO
PMT COND DELAY... NO
   PHASE 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
PED RCL  . . . . . . . . . . . . . . . .
WALK 2   . . . . . . . . . . . . . . . .
VEX 2    . . . . . . . . . . . . . . . .
VEH RCL  . . . . . . . . . . . . . . . .
MAX RCL  . . . . . . . . . . . . . . . .
MAX 2    . X . . . X . . . . . . . . . .
   PHASE 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
MAX 3    . . . . . . . . . . . . . . . .
CS INH   . . . . . . . . . . . . . . . .
OMIT     . . . . . . . . . . . . . . . .
SPC FCT  . . . . . . . . (1-8)
AUX FCT  . . . (1-3)
         1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
LP 1-15  . . . . . . . . . . . . . . .
LP 16-30 . . . . . . . . . . . . . . .
LP 31-45 . . . . . . . . . . . . . . .
LP 46-60 . . . . . . . . . . . . . . .
LP 61-75 . . . . . . . . . . . . . . .
LP 76-90 . . . . . . . . . . . . . . .
LP91-100 . . . . . . . . . .
         1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
```

```
ACTION PLAN...[  2]
PATTERN.........   2 SYS OVERRIDE.... NO
TIMING PLAN..... 0 SEQUENCE........  0
VEH DETECTOR PLAN. 0 DET LOG........NONE
FLASH...........  -- RED REST........ NO
VEH DET DIAG PLN.. 0 PED DET DIAG PLN..0
DIMMING ENABLE..  NO PRIORITY RETURN. NO
PED PR RETURN.... NO QUEUE DELAY..... NO
PMT COND DELAY... NO
   PHASE 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
PED RCL  . . . . . . . . . . . . . . . .
WALK 2   . . . . . . . . . . . . . . . .
VEX 2    . . . . . . . . . . . . . . . .
VEH RCL  . . . . . . . . . . . . . . . .
MAX RCL  . . . . . . . . . . . . . . . .
MAX 2    . . . . . . . . . . . . . . . .
   PHASE 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
MAX 3    . . . . . . . . . . . . . . . .
CS INH   . . . . . . . . . . . . . . . .
OMIT     . . . . . . . . . . . . . . . .
SPC FCT  . . . . . . . . (1-8)
AUX FCT  . . . (1-3)
         1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
LP 1-15  . . . . . . . . . . . . . . .
LP 16-30 . . . . . . . . . . . . . . .
LP 31-45 . . . . . . . . . . . . . . .
LP 46-60 . . . . . . . . . . . . . . .
LP 61-75 . . . . . . . . . . . . . . .
LP 76-90 . . . . . . . . . . . . . . .
LP91-100 . . . . . . . . . .
         1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
```

```
ACTION PLAN...[  3]
PATTERN.........   3 SYS OVERRIDE.... NO
TIMING PLAN..... 0 SEQUENCE........  0
VEH DETECTOR PLAN. 0 DET LOG........NONE
FLASH...........  -- RED REST........ NO
VEH DET DIAG PLN.. 0 PED DET DIAG PLN..0
DIMMING ENABLE..  NO PRIORITY RETURN. NO
PED PR RETURN.... NO QUEUE DELAY..... NO
PMT COND DELAY... NO
   PHASE 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
```

```
PED RCL  . . . . . .
WALK 2   . . . . . .
VEX 2    . . . . . .
VEH RCL  . . . . . .
MAX RCL  . . . . . .
MAX 2    . . . . X . . . . . . .
   PHASE 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
MAX 3    . . . . . .
CS INH   . . . . . .
OMIT     . . . . . .
SPC FCT  . . . . . . . . (1-8)
AUX FCT  . . . (1-3)
         1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
LP 1-15  . . . . . .
LP 16-30 . . . . . .
LP 31-45 . . . . . .
LP 46-60 . . . . . .
LP 61-75 . . . . . .
LP 76-90 . . . . . .
LP91-100 . . . . . .
         1 2 3 4 5 6 7 8 9 0 1 2 3 4 5


ACTION PLAN...[  4]
PATTERN.........   4 SYS OVERRIDE.... NO
TIMING PLAN....... 0 SEQUENCE........  0
VEH DETECTOR PLAN. 0 DET LOG........NONE
FLASH...........  -- RED REST........ NO
VEH DET DIAG PLN.. 0 PED DET DIAG PLN..0
DIMMING ENABLE..  NO PRIORITY RETURN. NO
PED PR RETURN.... NO QUEUE DELAY..... NO
PMT COND DELAY... NO
   PHASE 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
PED RCL  . . . . . .
WALK 2   . . . . . .
VEX 2    . . . . . .
VEH RCL  . . . . . .
MAX RCL  . . . . . .
MAX 2    . . . . . .
   PHASE 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
MAX 3    . . . . . .
CS INH   . . . . . .
OMIT     . . . . . .
SPC FCT  . . . . . . . . (1-8)
AUX FCT  . . . (1-3)
         1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
LP 1-15  . . . . . .
LP 16-30 . . . . . .
LP 31-45 . . . . . .
LP 46-60 . . . . . .
LP 61-75 . . . . . .
LP 76-90 . . . . . .
LP91-100 . . . . . .
         1 2 3 4 5 6 7 8 9 0 1 2 3 4 5


ACTION PLAN...[  5]
PATTERN.........   5 SYS OVERRIDE.... NO
TIMING PLAN....... 0 SEQUENCE........  0
VEH DETECTOR PLAN. 0 DET LOG........NONE
FLASH...........  -- RED REST........ NO
VEH DET DIAG PLN.. 0 PED DET DIAG PLN..0
DIMMING ENABLE..  NO PRIORITY RETURN. NO
PED PR RETURN.... NO QUEUE DELAY..... NO
PMT COND DELAY... NO
   PHASE 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
PED RCL  . . . . . .
WALK 2   . . . . . .
VEX 2    . . . . . .
VEH RCL  . . . . . .
MAX RCL  . . . . . .
MAX 2    . . . . . .
   PHASE 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
MAX 3    . . . . . .
CS INH   . . . . . .
OMIT     . . . . . .
SPC FCT  . . . . . . . . (1-8)
AUX FCT  . . . (1-3)
         1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
LP 1-15  . . . . . .
LP 16-30 . . . . . .
LP 31-45 . . . . . .
LP 46-60 . . . . . .
LP 61-75 . . . . . .
LP 76-90 . . . . . .
LP91-100 . . . . . .
         1 2 3 4 5 6 7 8 9 0 1 2 3 4 5


DAY PLAN [ 1]  DAY PLAN IN EFFECT [ 1]
EVENT        ACTION PLAN      START TIME
  1              1              06:00
  2              2              10:00
  3              3              15:15
  4              4              19:00
  5              5              22:00
  6              0              00:00
  7              0              00:00
  8              0              00:00
  9              0              00:00
```

10	0	00:00
11	0	00:00
12	0	00:00
13	0	00:00
14	0	00:00
15	0	00:00
16	0	00:00
17	0	00:00
18	0	00:00
19	0	00:00
20	0	00:00
21	0	00:00
22	0	00:00
23	0	00:00
24	0	00:00
25	0	00:00
26	0	00:00
27	0	00:00
28	0	00:00
29	0	00:00
30	0	00:00
31	0	00:00
32	0	00:00
33	0	00:00
34	0	00:00
35	0	00:00
36	0	00:00
37	0	00:00
38	0	00:00
39	0	00:00
40	0	00:00
41	0	00:00
42	0	00:00
43	0	00:00
44	0	00:00
45	0	00:00
46	0	00:00
47	0	00:00
48	0	00:00
49	0	00:00
50	0	00:00

```
SCHEDULE NUMBER [  1]
DAY PLAN NO ..... 1 CLEAR ALL FIELDS.. .
SELECT ALL MONTHS.. .  DOW.. .  DOM.. .
MONTH     J F M A M J J A S O N D
          X X X X X X X X X X X X
DAY (DOW): SUN MON TUE WED THU FRI SAT
            X   X   X   X   X   X   X
```

```
DAY(DOM):1  2  3  4  5  6  7  8  9 10 11
          X  X  X  X  X  X  X  X  X  X  X
         12 13 14 15 16 17 18 19 20 21 22
          X  X  X  X  X  X  X  X  X  X  X
         23 24 25 26 27 28 29 30 31
          X  X  X  X  X  X  X  X  X
```

EXCEPTION DAY PROGRAM

EXCEPTION DAY	FLOAT/ FIXED	MON/ MON	DOW/ DOM	WOM/ YEAR	DAY PLAN
1	FLOAT	0	0	0	0
2	FLOAT	0	0	0	0
3	FLOAT	0	0	0	0
4	FLOAT	0	0	0	0
5	FLOAT	0	0	0	0
6	FLOAT	0	0	0	0
7	FLOAT	0	0	0	0
8	FLOAT	0	0	0	0
9	FLOAT	0	0	0	0
10	FLOAT	0	0	0	0
11	FLOAT	0	0	0	0
12	FLOAT	0	0	0	0
13	FLOAT	0	0	0	0
14	FLOAT	0	0	0	0
15	FLOAT	0	0	0	0
16	FLOAT	0	0	0	0
17	FLOAT	0	0	0	0
18	FLOAT	0	0	0	0
19	FLOAT	0	0	0	0
20	FLOAT	0	0	0	0
21	FLOAT	0	0	0	0
22	FLOAT	0	0	0	0
23	FLOAT	0	0	0	0
24	FLOAT	0	0	0	0
25	FLOAT	0	0	0	0
26	FLOAT	0	0	0	0
27	FLOAT	0	0	0	0
28	FLOAT	0	0	0	0
29	FLOAT	0	0	0	0
30	FLOAT	0	0	0	0
31	FLOAT	0	0	0	0
32	FLOAT	0	0	0	0
33	FLOAT	0	0	0	0
34	FLOAT	0	0	0	0
35	FLOAT	0	0	0	0
36	FLOAT	0	0	0	0
37	FLOAT	0	0	0	0
38	FLOAT	0	0	0	0
39	FLOAT	0	0	0	0

```
40       FLOAT      0     0     0    0
41       FLOAT      0     0     0    0
42       FLOAT      0     0     0    0
43       FLOAT      0     0     0    0
44       FLOAT      0     0     0    0
45       FLOAT      0     0     0    0
46       FLOAT      0     0     0    0
47       FLOAT      0     0     0    0
48       FLOAT      0     0     0    0
49       FLOAT      0     0     0    0
50       FLOAT      0     0     0    0
51       FLOAT      0     0     0    0
52       FLOAT      0     0     0    0
53       FLOAT      0     0     0    0
54       FLOAT      0     0     0    0
55       FLOAT      0     0     0    0
56       FLOAT      0     0     0    0
57       FLOAT      0     0     0    0
58       FLOAT      0     0     0    0
59       FLOAT      0     0     0    0
60       FLOAT      0     0     0    0
61       FLOAT      0     0     0    0
62       FLOAT      0     0     0    0
63       FLOAT      0     0     0    0
64       FLOAT      0     0     0    0
65       FLOAT      0     0     0    0
66       FLOAT      0     0     0    0
67       FLOAT      0     0     0    0
68       FLOAT      0     0     0    0
69       FLOAT      0     0     0    0
70       FLOAT      0     0     0    0
71       FLOAT      0     0     0    0
72       FLOAT      0     0     0    0
73       FLOAT      0     0     0    0
74       FLOAT      0     0     0    0
75       FLOAT      0     0     0    0
76       FLOAT      0     0     0    0
77       FLOAT      0     0     0    0
78       FLOAT      0     0     0    0
79       FLOAT      0     0     0    0
80       FLOAT      0     0     0    0
81       FLOAT      0     0     0    0
82       FLOAT      0     0     0    0
83       FLOAT      0     0     0    0
84       FLOAT      0     0     0    0
85       FLOAT      0     0     0    0
86       FLOAT      0     0     0    0
87       FLOAT      0     0     0    0
88       FLOAT      0     0     0    0
89       FLOAT      0     0     0    0
  90       FLOAT      0     0     0    0
```

```
****************************************
*   ECONOLITE CONTROL PRODUCTS, INC.   *
*                                      *
*              COBALT-1000             *
*       Copyright (C)  2012-2019       *
*                                      *
*     Solutions that Move the World    *
*                                      *
*  CITY....   0  INTERSECTION..     0  *
*                                      *
* SOFTWARE................... 32.67.30 *
*                                      *
*                                      *
*                                      *
* CONFIG.........................L3000 *
****************************************
```

```
SOFTWARE MODULES
NAME            PART NUMBER   VERSION

EB U-BOOT       119-1046-205  05.05.00
O/S             119-1047-215  06.15.00
APPLICATION     119-1051-267    32.67.30
CONFIGURATION   100-1049-001    L3000,19
EB CONTROLLER   119-1049-208  07.08.00
BGC CONTROLLER  140-1020-208  09.08.00
BGC RESOURCE    140-1033-203  18.03.00
PIO CONTROLLER  140-1021-204  10.04.00
PS CONTROLLER   140-1022-204  11.04.00
AGC U-BOOT      140-1023-200  12.00.05
AGC O/S         140-1024-212  13.12.00
AGC APPLICATION 140-1025-267  14.67.30
TELEMETRY              N/A         N/A
```

```
VEH DET PH ASSIGN VEH DET PLAN [ 1]
       [   ADDITIONAL PHASE CALLS    ]
DET PH 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 T-TYPE
  1  1 . . . . . . . . . . . . . . . . N-NTCIP
  2  2 . . . . . . . . . . . . . . . . N-NTCIP
```

3	0	N-NTCIP
4	4	N-NTCIP
5	5	N-NTCIP
6	6	N-NTCIP
7	0	N-NTCIP
8	8	N-NTCIP
9	0	N-NTCIP
10	0	N-NTCIP
11	0	N-NTCIP
12	8	N-NTCIP
13	0	N-NTCIP
14	0	N-NTCIP
15	0	N-NTCIP
16	0	N-NTCIP
17	1	N-NTCIP
18	2	N-NTCIP
19	3	N-NTCIP
20	0	N-NTCIP
21	5	N-NTCIP
22	6	N-NTCIP
23	7	N-NTCIP
24	8	N-NTCIP
25	0	N-NTCIP
26	0	N-NTCIP
27	0	N-NTCIP
28	0	N-NTCIP
29	0	N-NTCIP
30	0	N-NTCIP
31	0	N-NTCIP
32	0	N-NTCIP
33	9	N-NTCIP
34	10	N-NTCIP
35	11	N-NTCIP
36	12	N-NTCIP
37	0	N-NTCIP
38	0	N-NTCIP
39	0	N-NTCIP
40	0	N-NTCIP
41	0	N-NTCIP
42	0	N-NTCIP
43	0	N-NTCIP
44	0	N-NTCIP
45	0	N-NTCIP
46	0	N-NTCIP
47	0	N-NTCIP
48	0	N-NTCIP
49	0	N-NTCIP
50	0	N-NTCIP
51	0	N-NTCIP
52	0	N-NTCIP
53	0	N-NTCIP
54	0	N-NTCIP
55	0	N-NTCIP
56	0	N-NTCIP
57	0	N-NTCIP
58	0	N-NTCIP
59	0	N-NTCIP
60	0	N-NTCIP
61	0	N-NTCIP
62	0	N-NTCIP
63	0	N-NTCIP
64	0	N-NTCIP

VEH DET PH ASSIGN VEH DET PLAN [2]

		[ADDITIONAL PHASE CALLS]															
DET	PH	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	T-TYPE
1	1																	N-NTCIP
2	2																	N-NTCIP
3	3																	N-NTCIP
4	4																	N-NTCIP
5	5																	N-NTCIP
6	6																	N-NTCIP
7	7																	N-NTCIP
8	8																	N-NTCIP
9	9																	N-NTCIP
10	10																	N-NTCIP
11	11																	N-NTCIP
12	12																	N-NTCIP
13	13																	N-NTCIP
14	14																	N-NTCIP
15	15																	N-NTCIP
16	16																	N-NTCIP
17	0																	N-NTCIP
18	0																	N-NTCIP
19	0																	N-NTCIP
20	0																	N-NTCIP
21	0																	N-NTCIP
22	0																	N-NTCIP
23	0																	N-NTCIP
24	0																	N-NTCIP
25	0																	N-NTCIP
26	0																	N-NTCIP
27	0																	N-NTCIP
28	0																	N-NTCIP
29	0																	N-NTCIP
30	0																	N-NTCIP
31	0																	N-NTCIP
32	0																	N-NTCIP
33	0																	N-NTCIP

```
 34  0 . . . . . . . . . . . . . . . . N-NTCIP
 35  0 . . . . . . . . . . . . . . . . N-NTCIP
 36  0 . . . . . . . . . . . . . . . . N-NTCIP
 37  0 . . . . . . . . . . . . . . . . N-NTCIP
 38  0 . . . . . . . . . . . . . . . . N-NTCIP
 39  0 . . . . . . . . . . . . . . . . N-NTCIP
 40  0 . . . . . . . . . . . . . . . . N-NTCIP
 41  0 . . . . . . . . . . . . . . . . N-NTCIP
 42  0 . . . . . . . . . . . . . . . . N-NTCIP
 43  0 . . . . . . . . . . . . . . . . N-NTCIP
 44  0 . . . . . . . . . . . . . . . . N-NTCIP
 45  0 . . . . . . . . . . . . . . . . N-NTCIP
 46  0 . . . . . . . . . . . . . . . . N-NTCIP
 47  0 . . . . . . . . . . . . . . . . N-NTCIP
 48  0 . . . . . . . . . . . . . . . . N-NTCIP
 49  0 . . . . . . . . . . . . . . . . N-NTCIP
 50  0 . . . . . . . . . . . . . . . . N-NTCIP
 51  0 . . . . . . . . . . . . . . . . N-NTCIP
 52  0 . . . . . . . . . . . . . . . . N-NTCIP
 53  0 . . . . . . . . . . . . . . . . N-NTCIP
 54  0 . . . . . . . . . . . . . . . . N-NTCIP
 55  0 . . . . . . . . . . . . . . . . N-NTCIP
 56  0 . . . . . . . . . . . . . . . . N-NTCIP
 57  0 . . . . . . . . . . . . . . . . N-NTCIP
 58  0 . . . . . . . . . . . . . . . . N-NTCIP
 59  0 . . . . . . . . . . . . . . . . N-NTCIP
 60  0 . . . . . . . . . . . . . . . . N-NTCIP
 61  0 . . . . . . . . . . . . . . . . N-NTCIP
 62  0 . . . . . . . . . . . . . . . . N-NTCIP
 63  0 . . . . . . . . . . . . . . . . N-NTCIP
 64  0 . . . . . . . . . . . . . . . . N-NTCIP


VEH DET PH ASSIGN VEH DET PLAN [ 3]
       [   ADDITIONAL PHASE CALLS    ]
DET PH 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 T-TYPE
  1  1 . . . . . . . . . . . . . . . . N-NTCIP
  2  2 . . . . . . . . . . . . . . . . N-NTCIP
  3  3 . . . . . . . . . . . . . . . . N-NTCIP
  4  4 . . . . . . . . . . . . . . . . N-NTCIP
  5  5 . . . . . . . . . . . . . . . . N-NTCIP
  6  6 . . . . . . . . . . . . . . . . N-NTCIP
  7  7 . . . . . . . . . . . . . . . . N-NTCIP
  8  8 . . . . . . . . . . . . . . . . N-NTCIP
  9  9 . . . . . . . . . . . . . . . . N-NTCIP
 10 10 . . . . . . . . . . . . . . . . N-NTCIP
 11 11 . . . . . . . . . . . . . . . . N-NTCIP
 12 12 . . . . . . . . . . . . . . . . N-NTCIP
 13 13 . . . . . . . . . . . . . . . . N-NTCIP
 14 14 . . . . . . . . . . . . . . . . N-NTCIP
 15 15 . . . . . . . . . . . . . . . . N-NTCIP
 16 16 . . . . . . . . . . . . . . . . N-NTCIP
 17  0 . . . . . . . . . . . . . . . . N-NTCIP
 18  0 . . . . . . . . . . . . . . . . N-NTCIP
 19  0 . . . . . . . . . . . . . . . . N-NTCIP
 20  0 . . . . . . . . . . . . . . . . N-NTCIP
 21  0 . . . . . . . . . . . . . . . . N-NTCIP
 22  0 . . . . . . . . . . . . . . . . N-NTCIP
 23  0 . . . . . . . . . . . . . . . . N-NTCIP
 24  0 . . . . . . . . . . . . . . . . N-NTCIP
 25  0 . . . . . . . . . . . . . . . . N-NTCIP
 26  0 . . . . . . . . . . . . . . . . N-NTCIP
 27  0 . . . . . . . . . . . . . . . . N-NTCIP
 28  0 . . . . . . . . . . . . . . . . N-NTCIP
 29  0 . . . . . . . . . . . . . . . . N-NTCIP
 30  0 . . . . . . . . . . . . . . . . N-NTCIP
 31  0 . . . . . . . . . . . . . . . . N-NTCIP
 32  0 . . . . . . . . . . . . . . . . N-NTCIP
 33  0 . . . . . . . . . . . . . . . . N-NTCIP
 34  0 . . . . . . . . . . . . . . . . N-NTCIP
 35  0 . . . . . . . . . . . . . . . . N-NTCIP
 36  0 . . . . . . . . . . . . . . . . N-NTCIP
 37  0 . . . . . . . . . . . . . . . . N-NTCIP
 38  0 . . . . . . . . . . . . . . . . N-NTCIP
 39  0 . . . . . . . . . . . . . . . . N-NTCIP
 40  0 . . . . . . . . . . . . . . . . N-NTCIP
 41  0 . . . . . . . . . . . . . . . . N-NTCIP
 42  0 . . . . . . . . . . . . . . . . N-NTCIP
 43  0 . . . . . . . . . . . . . . . . N-NTCIP
 44  0 . . . . . . . . . . . . . . . . N-NTCIP
 45  0 . . . . . . . . . . . . . . . . N-NTCIP
 46  0 . . . . . . . . . . . . . . . . N-NTCIP
 47  0 . . . . . . . . . . . . . . . . N-NTCIP
 48  0 . . . . . . . . . . . . . . . . N-NTCIP
 49  0 . . . . . . . . . . . . . . . . N-NTCIP
 50  0 . . . . . . . . . . . . . . . . N-NTCIP
 51  0 . . . . . . . . . . . . . . . . N-NTCIP
 52  0 . . . . . . . . . . . . . . . . N-NTCIP
 53  0 . . . . . . . . . . . . . . . . N-NTCIP
 54  0 . . . . . . . . . . . . . . . . N-NTCIP
 55  0 . . . . . . . . . . . . . . . . N-NTCIP
 56  0 . . . . . . . . . . . . . . . . N-NTCIP
 57  0 . . . . . . . . . . . . . . . . N-NTCIP
 58  0 . . . . . . . . . . . . . . . . N-NTCIP
 59  0 . . . . . . . . . . . . . . . . N-NTCIP
 60  0 . . . . . . . . . . . . . . . . N-NTCIP
 61  0 . . . . . . . . . . . . . . . . N-NTCIP
 62  0 . . . . . . . . . . . . . . . . N-NTCIP
 63  0 . . . . . . . . . . . . . . . . N-NTCIP
 64  0 . . . . . . . . . . . . . . . . N-NTCIP
```

```
VEH DET PH ASSIGN VEH DET PLAN [ 4]
      [   ADDITIONAL PHASE CALLS    ]
DET PH 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 T-TYPE
  1  1 . . . . . . . . . . . . . . . . N-NTCIP
  2  2 . . . . . . . . . . . . . . . . N-NTCIP
  3  3 . . . . . . . . . . . . . . . . N-NTCIP
  4  4 . . . . . . . . . . . . . . . . N-NTCIP
  5  5 . . . . . . . . . . . . . . . . N-NTCIP
  6  6 . . . . . . . . . . . . . . . . N-NTCIP
  7  7 . . . . . . . . . . . . . . . . N-NTCIP
  8  8 . . . . . . . . . . . . . . . . N-NTCIP
  9  9 . . . . . . . . . . . . . . . . N-NTCIP
 10 10 . . . . . . . . . . . . . . . . N-NTCIP
 11 11 . . . . . . . . . . . . . . . . N-NTCIP
 12 12 . . . . . . . . . . . . . . . . N-NTCIP
 13 13 . . . . . . . . . . . . . . . . N-NTCIP
 14 14 . . . . . . . . . . . . . . . . N-NTCIP
 15 15 . . . . . . . . . . . . . . . . N-NTCIP
 16 16 . . . . . . . . . . . . . . . . N-NTCIP
 17  0 . . . . . . . . . . . . . . . . N-NTCIP
 18  0 . . . . . . . . . . . . . . . . N-NTCIP
 19  0 . . . . . . . . . . . . . . . . N-NTCIP
 20  0 . . . . . . . . . . . . . . . . N-NTCIP
 21  0 . . . . . . . . . . . . . . . . N-NTCIP
 22  0 . . . . . . . . . . . . . . . . N-NTCIP
 23  0 . . . . . . . . . . . . . . . . N-NTCIP
 24  0 . . . . . . . . . . . . . . . . N-NTCIP
 25  0 . . . . . . . . . . . . . . . . N-NTCIP
 26  0 . . . . . . . . . . . . . . . . N-NTCIP
 27  0 . . . . . . . . . . . . . . . . N-NTCIP
 28  0 . . . . . . . . . . . . . . . . N-NTCIP
 29  0 . . . . . . . . . . . . . . . . N-NTCIP
 30  0 . . . . . . . . . . . . . . . . N-NTCIP
 31  0 . . . . . . . . . . . . . . . . N-NTCIP
 32  0 . . . . . . . . . . . . . . . . N-NTCIP
 33  0 . . . . . . . . . . . . . . . . N-NTCIP
 34  0 . . . . . . . . . . . . . . . . N-NTCIP
 35  0 . . . . . . . . . . . . . . . . N-NTCIP
 36  0 . . . . . . . . . . . . . . . . N-NTCIP
 37  0 . . . . . . . . . . . . . . . . N-NTCIP
 38  0 . . . . . . . . . . . . . . . . N-NTCIP
 39  0 . . . . . . . . . . . . . . . . N-NTCIP
 40  0 . . . . . . . . . . . . . . . . N-NTCIP
 41  0 . . . . . . . . . . . . . . . . N-NTCIP
 42  0 . . . . . . . . . . . . . . . . N-NTCIP
 43  0 . . . . . . . . . . . . . . . . N-NTCIP
 44  0 . . . . . . . . . . . . . . . . N-NTCIP
 45  0 . . . . . . . . . . . . . . . . N-NTCIP
 46  0 . . . . . . . . . . . . . . . . N-NTCIP
 47  0 . . . . . . . . . . . . . . . . N-NTCIP
 48  0 . . . . . . . . . . . . . . . . N-NTCIP
 49  0 . . . . . . . . . . . . . . . . N-NTCIP
 50  0 . . . . . . . . . . . . . . . . N-NTCIP
 51  0 . . . . . . . . . . . . . . . . N-NTCIP
 52  0 . . . . . . . . . . . . . . . . N-NTCIP
 53  0 . . . . . . . . . . . . . . . . N-NTCIP
 54  0 . . . . . . . . . . . . . . . . N-NTCIP
 55  0 . . . . . . . . . . . . . . . . N-NTCIP
 56  0 . . . . . . . . . . . . . . . . N-NTCIP
 57  0 . . . . . . . . . . . . . . . . N-NTCIP
 58  0 . . . . . . . . . . . . . . . . N-NTCIP
 59  0 . . . . . . . . . . . . . . . . N-NTCIP
 60  0 . . . . . . . . . . . . . . . . N-NTCIP
 61  0 . . . . . . . . . . . . . . . . N-NTCIP
 62  0 . . . . . . . . . . . . . . . . N-NTCIP
 63  0 . . . . . . . . . . . . . . . . N-NTCIP
 64  0 . . . . . . . . . . . . . . . . N-NTCIP


VEH DETECTOR [ 1]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 1  1    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 2]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 2  2    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 3]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 3  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
```

```
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 4]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 4  4    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 5]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 5  5    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 6]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 6  6    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 7]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 7  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 8]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 8  8    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 9]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 9  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [10]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
10  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [11]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
11  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [12]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
12  8    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...   10.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
```

```
PMT QUEUE DELAY- NO


VEH DETECTOR [13]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
13  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [14]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
14  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [15]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
15  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [16]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
16  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...   15.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [17]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
17  1    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [18]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
18  2    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [19]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
19  3    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [20]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
20  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [21]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
21  5    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO
```

```
VEH DETECTOR [22]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
22  6    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [23]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
23  7    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [24]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
24  8    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [25]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
25  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [26]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
26  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [27]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
27  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [28]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
28  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [29]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
29  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [30]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
30  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO
```

```
VEH DETECTOR [31]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
31  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [32]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
32  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [33]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
33  9    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [34]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
34 10    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [35]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
35 11    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [36]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
36 12    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [37]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
37  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [38]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
38  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [39]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
39  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO
```

```
VEH DETECTOR [40]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
40  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [41]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
41  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [42]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
42  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [43]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
43  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [44]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
44  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [45]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
45  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [46]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
46  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [47]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
47  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [48]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
48  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [49]   VEH DET PLAN [ 1]
```

```
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
49  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [50]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
50  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [51]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
51  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [52]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
52  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [53]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
53  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [54]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
54  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [55]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
55  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [56]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
56  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [57]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
57  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [58]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
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```
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
58  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [59]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
59  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [60]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
60  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [61]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
61  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [62]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
62  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [63]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
63  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [64]   VEH DET PLAN [ 1]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
64  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 1]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 1  1    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 2]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 2  2    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 3]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
```

```
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 3  3    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 4]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 4  4    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 5]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 5  5    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 6]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 6  6    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 7]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 7  7    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 8]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 8  8    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 9]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 9  9    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [10]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
10 10    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [11]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
11 11    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [12]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
```

```
12 12    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [13]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
13 13    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [14]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
14 14    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [15]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
15 15    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [16]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
16 16    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [17]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
17  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [18]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
18  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [19]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
19  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [20]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
20  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [21]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
21  0    . . . . . . . . . . . . . . . .
```

```
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [22]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
22  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [23]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
23  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [24]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
24  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [25]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
25  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [26]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
26  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [27]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
27  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [28]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
28  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [29]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
29  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [30]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
30  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
```

```
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [31]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
31  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [32]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
32  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [33]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
33  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [34]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
34  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [35]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
35  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [36]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
36  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [37]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
37  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [38]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
38  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [39]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
39  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
```

```
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [40]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
40  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [41]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
41  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [42]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
42  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [43]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
43  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [44]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
44  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [45]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
45  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [46]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
46  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [47]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
47  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [48]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
48  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
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```
PMT QUEUE DELAY- NO


VEH DETECTOR [49]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
49  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [50]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
50  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [51]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
51  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [52]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
52  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [53]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
53  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [54]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
54  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [55]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
55  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [56]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
56  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [57]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
57  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO
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VEH DETECTOR [58]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
58  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [59]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
59  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [60]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
60  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [61]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
61  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [62]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
62  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [63]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
63  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [64]   VEH DET PLAN [ 2]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
64  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 1]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 1  1    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 2]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 2  2    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO
```

```
VEH DETECTOR [ 3]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 3  3    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 4]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 4  4    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 5]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 5  5    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 6]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 6  6    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 7]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 7  7    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 8]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 8  8    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 9]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 9  9    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [10]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
10 10    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [11]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
11 11    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO
```

```
VEH DETECTOR [12]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
12 12    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [13]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
13 13    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [14]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
14 14    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [15]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
15 15    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [16]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
16 16    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [17]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
17  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [18]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
18  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [19]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
19  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [20]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
20  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [21]   VEH DET PLAN [ 3]
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```
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
21  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [22]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
22  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [23]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
23  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [24]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
24  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [25]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
25  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [26]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
26  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [27]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
27  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [28]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
28  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [29]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
29  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [30]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
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```
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
30  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [31]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
31  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [32]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
32  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [33]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
33  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [34]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
34  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [35]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
35  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [36]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
36  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [37]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
37  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [38]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
38  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [39]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
```

```
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
39  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [40]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
40  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [41]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
41  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [42]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
42  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [43]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
43  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [44]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
44  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [45]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
45  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [46]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
46  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [47]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
47  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [48]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
```

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48  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [49]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
49  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [50]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
50  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [51]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
51  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [52]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
52  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [53]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
53  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [54]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
54  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [55]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
55  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [56]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
56  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [57]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
57  0    . . . . . . . . . . . . . . . .
```

```
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [58]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
58  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [59]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
59  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [60]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
60  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [61]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
61  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [62]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
62  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [63]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
63  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [64]   VEH DET PLAN [ 3]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
64  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 1]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 1  1    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 2]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 2  2    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
```

```
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 3]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 3  3    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 4]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 4  4    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 5]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 5  5    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 6]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 6  6    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 7]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 7  7    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 8]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 8  8    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [ 9]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
 9  9    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [10]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
10 10    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [11]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
11 11    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
```

```
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [12]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
12 12    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [13]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
13 13    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [14]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
14 14    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [15]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
15 15    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [16]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
16 16    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [17]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
17  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [18]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
18  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [19]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
19  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [20]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
20  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
```

```
PMT QUEUE DELAY- NO


VEH DETECTOR [21]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
21  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [22]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
22  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [23]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
23  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [24]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
24  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [25]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
25  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [26]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
26  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [27]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
27  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [28]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
28  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [29]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
29  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO
```

```
VEH DETECTOR [30]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
30  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [31]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
31  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [32]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
32  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [33]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
33  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [34]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
34  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [35]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
35  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [36]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
36  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [37]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
37  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [38]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
38  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO
```

```
VEH DETECTOR [39]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
39  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [40]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
40  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [41]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
41  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [42]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
42  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [43]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
43  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [44]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
44  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [45]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
45  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [46]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
46  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [47]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
47  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN..... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO
```

```
VEH DETECTOR [48]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
48  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [49]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
49  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [50]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
50  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [51]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
51  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [52]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
52  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [53]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
53  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [54]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
54  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [55]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
55  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [56]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
56  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [57]   VEH DET PLAN [ 4]
```

```
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
57  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [58]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
58  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [59]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
59  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [60]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
60  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [61]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
61  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [62]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
62  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [63]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
63  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


VEH DETECTOR [64]   VEH DET PLAN [ 4]
TYPE: N-NTCIP
TS2 DETECTOR..... X ECPI LOG.......   NO
DET PH - 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
64  0    . . . . . . . . . . . . . . . .
EXTEND TIME...  0.0 DELAY TIME...    0.0
USE ADDED INITIAL . CROSS SWITCH PH..  0
LOCK IN....... NONE NTCIP VOL . OR OCC .
PMT QUEUE DELAY- NO


PED DET PHASE ASSIGNMENT MODE: NTCIP

   PHASE  1   2   3   4   5   6   7   8
DETECTOR  1   2   3   4   5   6   7   8

   PHASE  9  10  11  12  13  14  15  16
DETECTOR  9  10  11  12  13  14  15  16


LOG - SPEED DETECTOR SETUP
NTCIP LOG. 60 ECPI LOG. TBAP LENGTH.INCH
       SPEED DET  1  2  3  4  5  6  7  8
LOCAL DET.......  0  0  0  0  0  0  0  0
```

```
ONE/TWO DET.....  1  1  1  1  1  1  1  1
VEH LENGTH......  0  0  0  0  0  0  0  0
TRAP LENGTH.....  0  0  0  0  0  0  0  0
ENABLE LOG......  .  .  .  .  .  .  .  .
       SPEED DET  9 10 11 12 13 14 15 16
LOCAL DET.......  0  0  0  0  0  0  0  0
ONE/TWO DET.....  1  1  1  1  1  1  1  1
VEH LENGTH......  0  0  0  0  0  0  0  0
TRAP LENGTH.....  0  0  0  0  0  0  0  0
ENABLE LOG......  .  .  .  .  .  .  .  .
```

VEH DET DIAG

VEH DIAG PLAN NUMBER[1]				FAILED		
DET	COUNT	ACT	PRES	X'S	TIME	CL DELAY
1	0	0	0	1	255	0
2	0	0	0	1	255	0
3	0	0	0	1	255	0
4	0	0	0	1	255	0
5	0	0	0	1	255	0
6	0	0	0	1	255	0
7	0	0	0	1	255	0
8	0	0	0	1	255	0
9	0	0	0	1	255	0
10	0	0	0	1	255	0
11	0	0	0	1	255	0
12	0	0	0	1	255	0
13	0	0	0	1	255	0
14	0	0	0	1	255	0
15	0	0	0	1	255	0
16	0	0	0	1	255	0
17	0	0	0	1	255	0
18	0	0	0	1	255	0
19	0	0	0	1	255	0
20	0	0	0	1	255	0
21	0	0	0	1	255	0
22	0	0	0	1	255	0
23	0	0	0	1	255	0
24	0	0	0	1	255	0
25	0	0	0	1	255	0
26	0	0	0	1	255	0
27	0	0	0	1	255	0
28	0	0	0	1	255	0
29	0	0	0	1	255	0
30	0	0	0	1	255	0
31	0	0	0	1	255	0
32	0	0	0	1	255	0
33	0	0	0	1	255	0
34	0	0	0	1	255	0
35	0	0	0	1	255	0
36	0	0	0	1	255	0
37	0	0	0	1	255	0
38	0	0	0	1	255	0
39	0	0	0	1	255	0
40	0	0	0	1	255	0
41	0	0	0	1	255	0
42	0	0	0	1	255	0
43	0	0	0	1	255	0
44	0	0	0	1	255	0
45	0	0	0	1	255	0
46	0	0	0	1	255	0
47	0	0	0	1	255	0
48	0	0	0	1	255	0
49	0	0	0	1	255	0
50	0	0	0	1	255	0
51	0	0	0	1	255	0
52	0	0	0	1	255	0
53	0	0	0	1	255	0
54	0	0	0	1	255	0
55	0	0	0	1	255	0
56	0	0	0	1	255	0
57	0	0	0	1	255	0
58	0	0	0	1	255	0
59	0	0	0	1	255	0
60	0	0	0	1	255	0
61	0	0	0	1	255	0
62	0	0	0	1	255	0
63	0	0	0	1	255	0
64	0	0	0	1	255	0

PED DETECTOR DIAG PLAN[1]

DET	COUNTS	ACT	PRES	MULTIPLIER
1	0	0	0	1
2	0	0	0	1
3	0	0	0	1
4	0	0	0	1
5	0	0	0	1
6	0	0	0	1
7	0	0	0	1
8	0	0	0	1
9	0	0	0	1
10	0	0	0	1
11	0	0	0	1
12	0	0	0	1
13	0	0	0	1
14	0	0	0	1
15	0	0	0	1
16	0	0	0	1

```
****************************************
*   ECONOLITE CONTROL PRODUCTS, INC.   *
*                                      *
*               COBALT-1000            *
*       Copyright (C)  2012-2019       *
*                                      *
*     Solutions that Move the World    *
*                                      *
*  CITY....   0  INTERSECTION..     0  *
*                                      *
* SOFTWARE..................... 32.67.30 *
*                                      *
*                                      *
*                                      *
* CONFIG.........................L3000 *
****************************************
```

SOFTWARE MODULES

NAME	PART NUMBER	VERSION
EB U-BOOT	119-1046-205	05.05.00
O/S	119-1047-215	06.15.00
APPLICATION	119-1051-267	32.67.30
CONFIGURATION	100-1049-001	L3000,19
EB CONTROLLER	119-1049-208	07.08.00
BGC CONTROLLER	140-1020-208	09.08.00
BGC RESOURCE	140-1033-203	18.03.00
PIO CONTROLLER	140-1021-204	10.04.00
PS CONTROLLER	140-1022-204	11.04.00
AGC U-BOOT	140-1023-200	12.00.05
AGC O/S	140-1024-212	13.12.00
AGC APPLICATION	140-1025-267	14.67.30
TELEMETRY	N/A	N/A

LOGIC # 1 ACTIVE: KBD- ENABLED

IF   --F DET   33 IS ON

THEN DET SET PED   2   ON

LOGIC # 2 ACTIVE: KBD- ENABLED

IF   --F DET   34 IS ON

THEN DET SET PED   4   ON

LOGIC # 3 ACTIVE: KBD- ENABLED

IF   --F DET   35 IS ON

THEN DET SET PED   6   ON

LOGIC # 4 ACTIVE: KBD- ENABLED

IF   --F DET   36 IS ON

THEN DET SET PED   8   ON

LOGIC # 5 ACTIVE: KBD- ENABLED

IF   --F DET FAIL ON DET   33 IS ON

THEN DET SET PED   2   ON

LOGIC # 6 ACTIVE: KBD- ENABLED

IF   --F DET FAIL ON DET   34 IS ON

THEN DET SET PED   4   ON

LOGIC # 7 ACTIVE: KBD- ENABLED

```
IF   --F DET FAIL ON DET    35 IS ON

THEN DET SET PED           6   ON



LOGIC #  8  ACTIVE: KBD- ENABLED

IF   --F DET FAIL ON DET    36 IS ON

THEN DET SET PED           8   ON



****************************************
*   ECONOLITE CONTROL PRODUCTS, INC.   *
*                                      *
*               COBALT-1000            *
*       Copyright (C)  2012-2019       *
*                                      *
*     Solutions that Move the World    *
*                                      *
*  CITY....   0  INTERSECTION..     0  *
*                                      *
* SOFTWARE..................... 32.67.30 *
*                                      *
*                                      *
*                                      *
* CONFIG.........................L3000 *
****************************************


SOFTWARE MODULES
NAME            PART NUMBER   VERSION

EB U-BOOT       119-1046-205  05.05.00
O/S             119-1047-215  06.15.00
APPLICATION     119-1051-267    32.67.30
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EB CONTROLLER   119-1049-208  07.08.00
BGC CONTROLLER  140-1020-208  09.08.00
BGC RESOURCE    140-1033-203  18.03.00
PIO CONTROLLER  140-1021-204  10.04.00
PS CONTROLLER   140-1022-204  11.04.00
AGC U-BOOT      140-1023-200  12.00.05
AGC O/S         140-1024-212  13.12.00
AGC APPLICATION 140-1025-267  14.67.30
TELEMETRY              N/A         N/A
```

```
TSP/SCP PLAN
   TSP/SCP PLAN    1   2   3   4   5   6
TSP/SCP ENA       NO  NO  NO  NO  NO  NO
SIGNAL TYPE        S   S   S   S   S   S
DET LOCK           .   .   .   .   .   .
DELAY TIME         0   0   0   0   0   0
MAX PRESENCE       0   0   0   0   0   0
PMT ENA RESERVICE  .   .   .   .   .   .
NO DELAY IN TSP    .   .   .   .   .   .
ACT SF INHIBIT     0   0   0   0   0   0
RESERVICE CYCLS    0   0   0   0   0   0
BUS HEADING       NB  SB  EB  WB
MODE.........TSP  FREE DEFAULT PTN. 120
HEADWAY ALLOWANCE   0%


         ----- TSP/SCP PHASE -----
         1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6
TSP/SCP1 . . . . . . . . . . . . . . . .
TSP/SCP2 . . . . . . . . . . . . . . . .
TSP/SCP3 . . . . . . . . . . . . . . . .
TSP/SCP4 . . . . . . . . . . . . . . . .
TSP/SCP5 . . . . . . . . . . . . . . . .
TSP/SCP6 . . . . . . . . . . . . . . . .

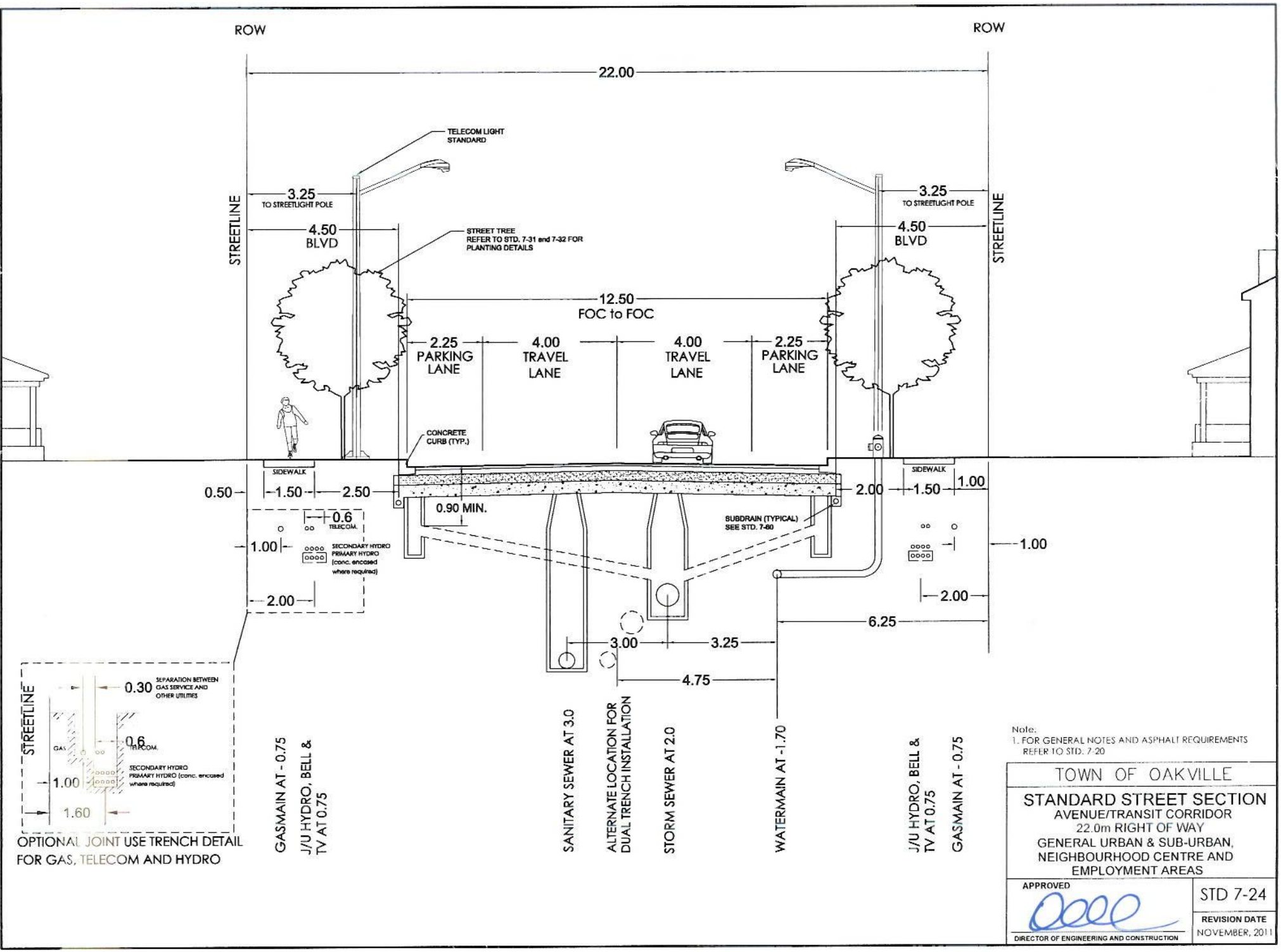

TSP/SCP SPLIT PATTERN [  1]
IN EFFECT TMG PLAN [1] O SPL DM [1] O
   PHASE   1   2   3   4   5   6   7   8
MAX RDTN 255 255 255 255 255 255 255 255
MIN GRN   11  26   0  17   0  26   0  17



   PHASE   9  10  11  12  13  14  15  16
MAX RDTN 255 255 255 255 255 255 255 255
MIN GRN    0   0   0   0   0   0   0   0
```

Appendix C

Town of Oakville Standard ROW Section



Note.
1. FOR GENERAL NOTES AND ASPHALT REQUIREMENTS REFER TO STD. 7-20

TOWN OF OAKVILLE

STANDARD STREET SECTION

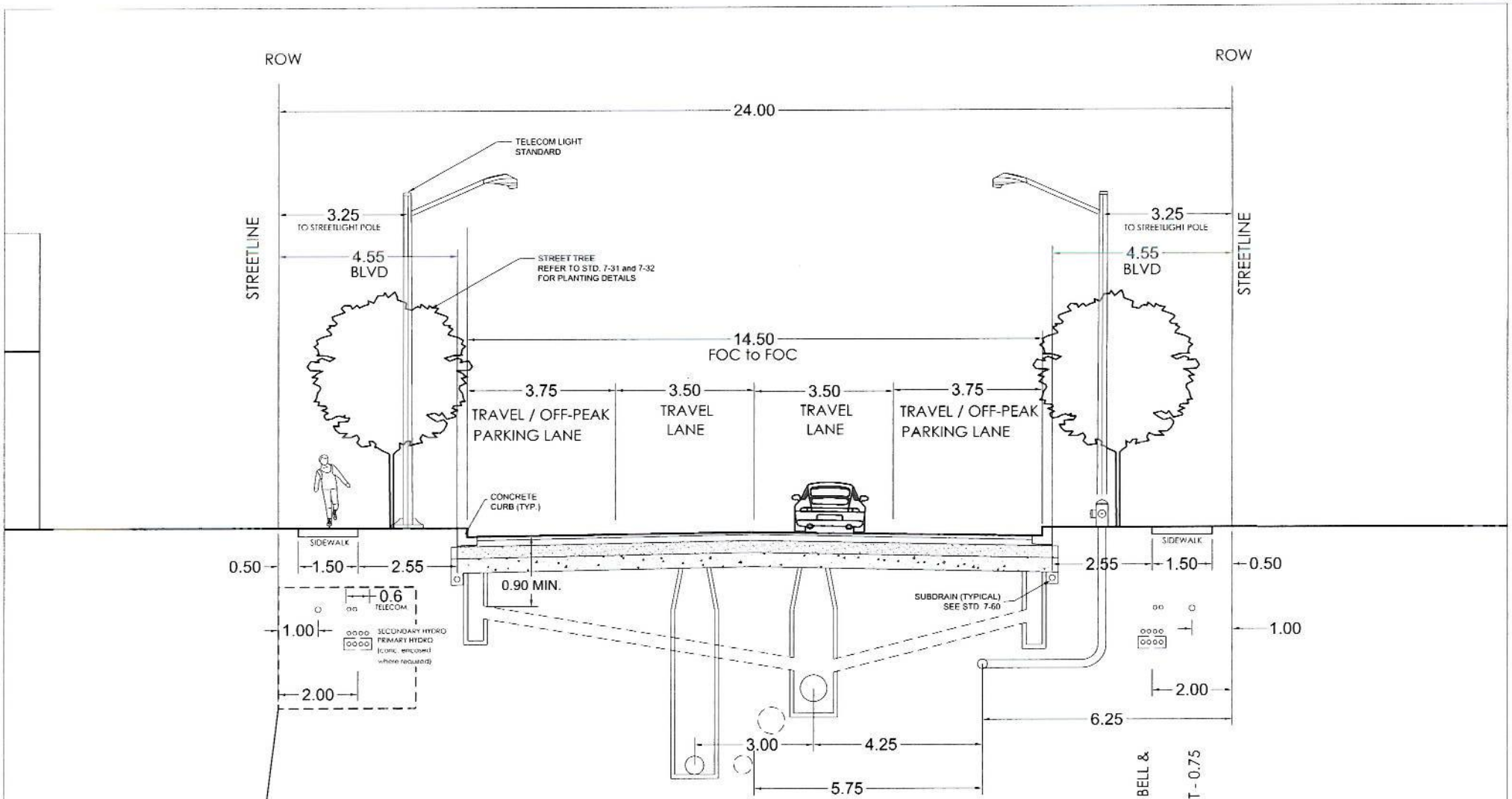
AVENUE/TRANSIT CORRIDOR
22.0m RIGHT OF WAY
GENERAL URBAN & SUB-URBAN, NEIGHBOURHOOD CENTRE AND EMPLOYMENT AREAS

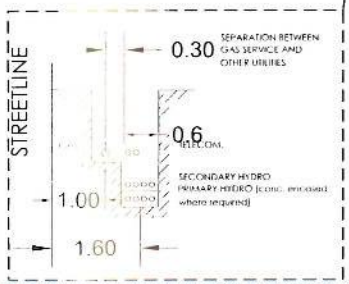
APPROVED

DIRECTOR OF ENGINEERING AND CONSTRUCTION

STD 7-24

REVISION DATE
NOVEMBER, 2011





OPTIONAL JOINT USE TRENCH DETAIL
FOR GAS, TELECOM AND HYDRO

Note:
1. FOR GENERAL NOTES AND ASPHALT REQUIREMENTS REFER TO STD. 7-20

TOWN OF OAKVILLE

STANDARD STREET SECTION
AVENUE/TRANSIT CORRIDOR
24.0m RIGHT OF WAY
URBAN CORE AREA

APPROVED

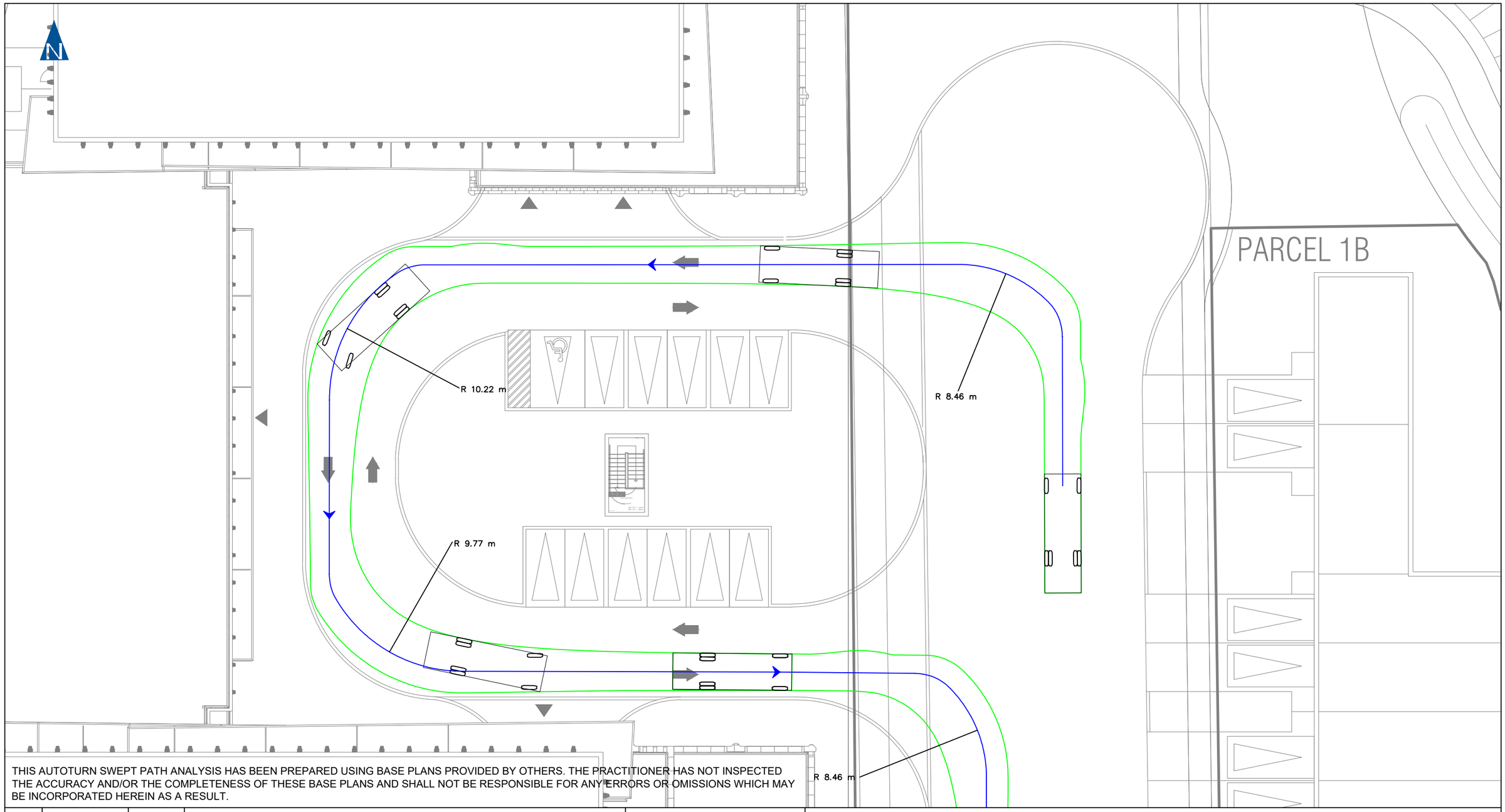
DIRECTOR OF ENGINEERING AND CONSTRUCTION

STD 7-25

REVISION DATE
May 2011

Appendix D

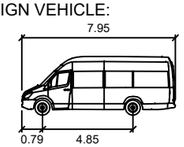
Vehicle Swept Path Analysis



THIS AUTOTURN SWEPT PATH ANALYSIS HAS BEEN PREPARED USING BASE PLANS PROVIDED BY OTHERS. THE PRACTITIONER HAS NOT INSPECTED THE ACCURACY AND/OR THE COMPLETENESS OF THESE BASE PLANS AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.

NO.	DATE	INITIAL	REVISION DETAIL

DESIGN VEHICLE:



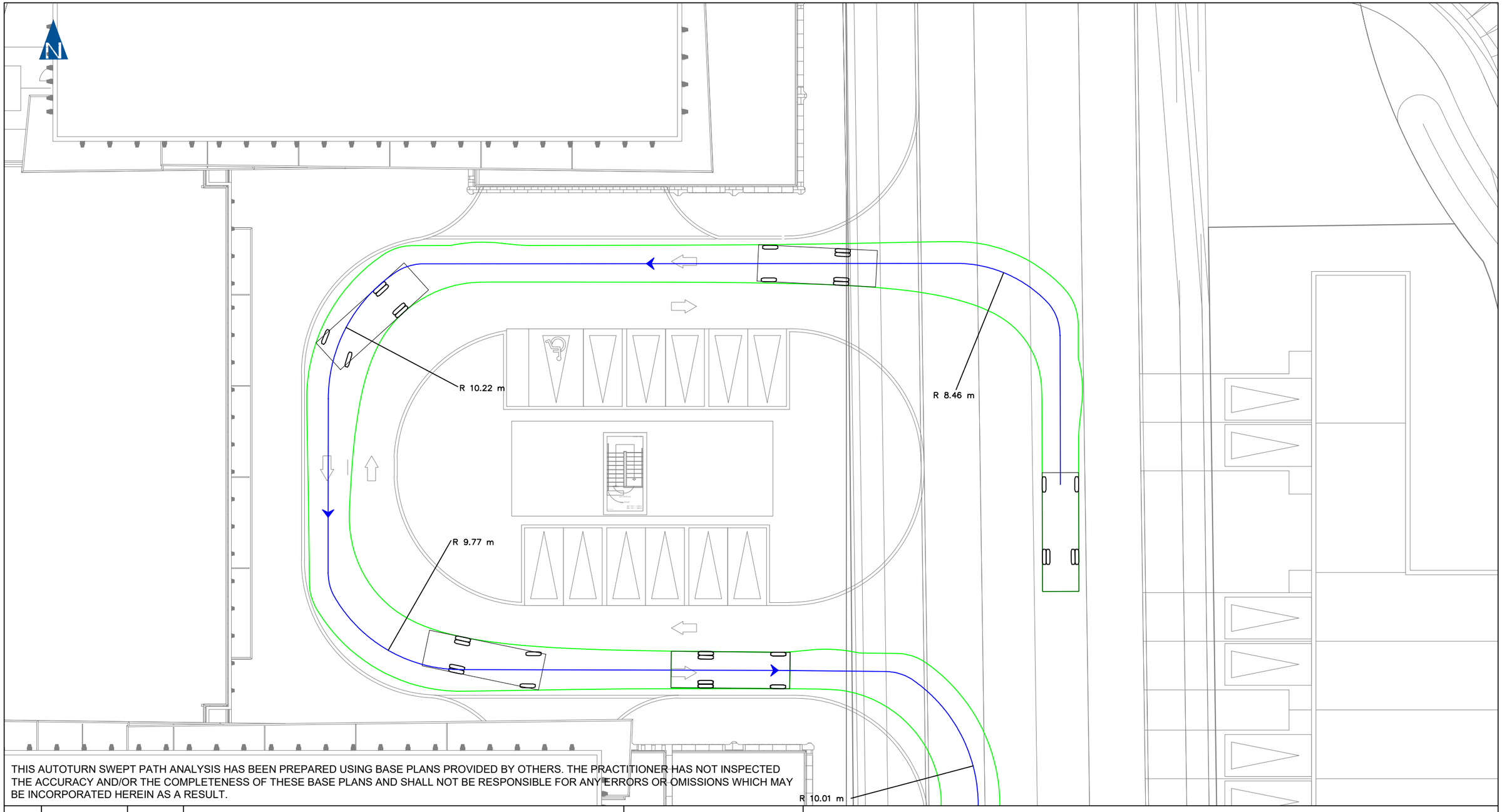
Oakville care-A-van

	meters
Width	: 2.44
Track	: 2.44
Lock to Lock Time	: 6.0
Steering Angle	: 35.0

AUTOTURN ASSESSMENT
3275 TRAFALGAR ROAD
TOWN OF OAKVILLE

paradigm TRANSPORTATION SOLUTIONS LIMITED

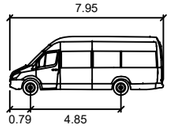
PROJECT NO.: 220208	DATE: SEPTEMBER 2024	SCALE: 1:250	DRAWING NO.: 01
DRAWN: SC	DESIGN: SC	CHECK: GL	



THIS AUTOTURN SWEPT PATH ANALYSIS HAS BEEN PREPARED USING BASE PLANS PROVIDED BY OTHERS. THE PRACTITIONER HAS NOT INSPECTED THE ACCURACY AND/OR THE COMPLETENESS OF THESE BASE PLANS AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.

NO.	DATE	INITIAL	REVISION DETAIL

DESIGN VEHICLE:



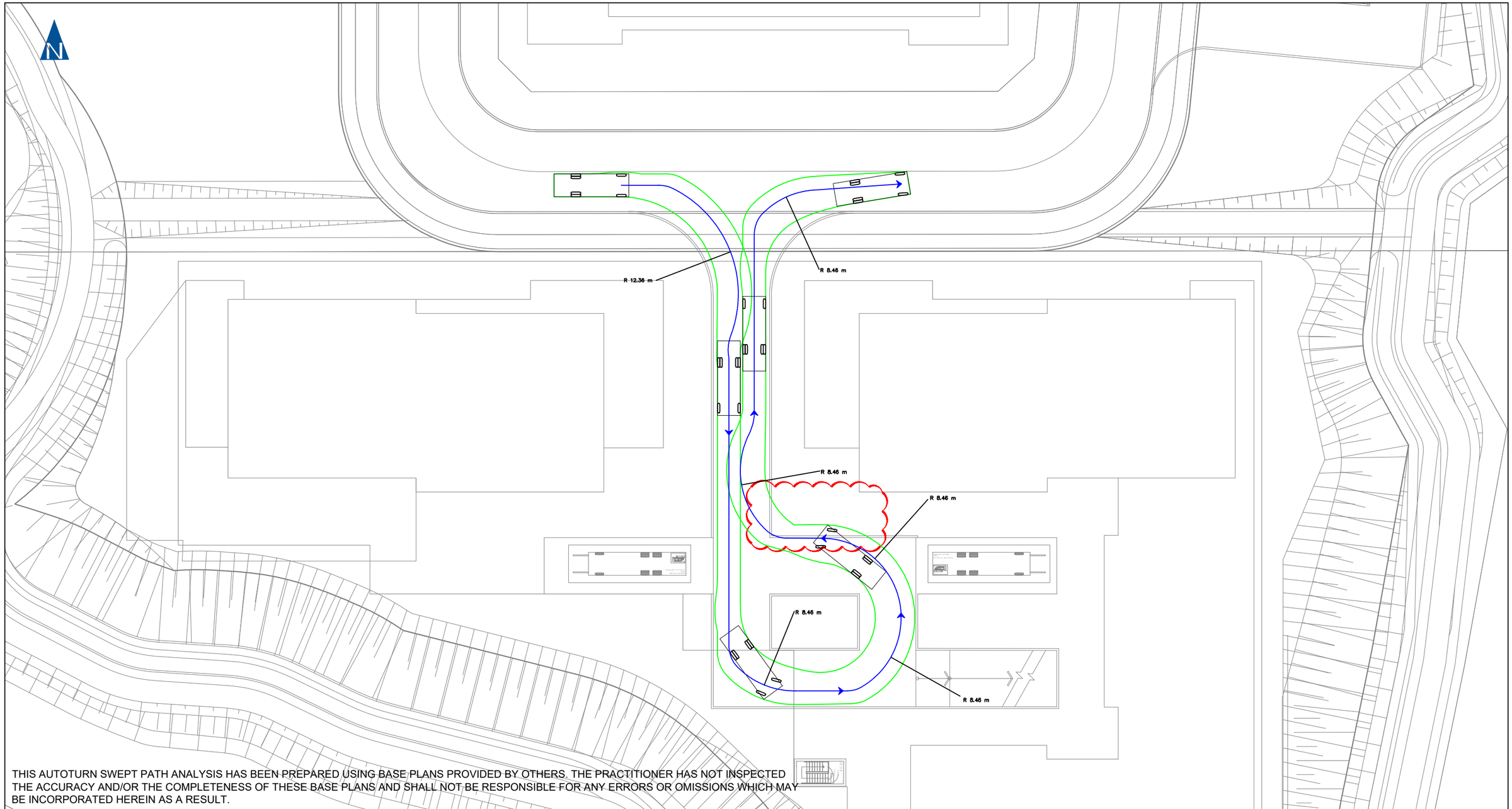
Oakville care-A-van

	meters
Width	: 2.44
Track	: 2.44
Lock to Lock Time	: 6.0
Steering Angle	: 35.0

AUTOTURN ASSESSMENT
3275 TRAFALGAR ROAD
TOWN OF OAKVILLE

paradigm TRANSPORTATION SOLUTIONS LIMITED

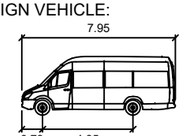
PROJECT NO.: 220208	DATE: SEPTEMBER 2024	SCALE: 1:250	DRAWING NO.: 02
DRAWN: SC	DESIGN: SC	CHECK: GL	



THIS AUTOTURN SWEPT PATH ANALYSIS HAS BEEN PREPARED USING BASE PLANS PROVIDED BY OTHERS. THE PRACTITIONER HAS NOT INSPECTED THE ACCURACY AND/OR THE COMPLETENESS OF THESE BASE PLANS AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.

NO.	DATE	INITIAL	REVISION DETAIL

DESIGN VEHICLE:



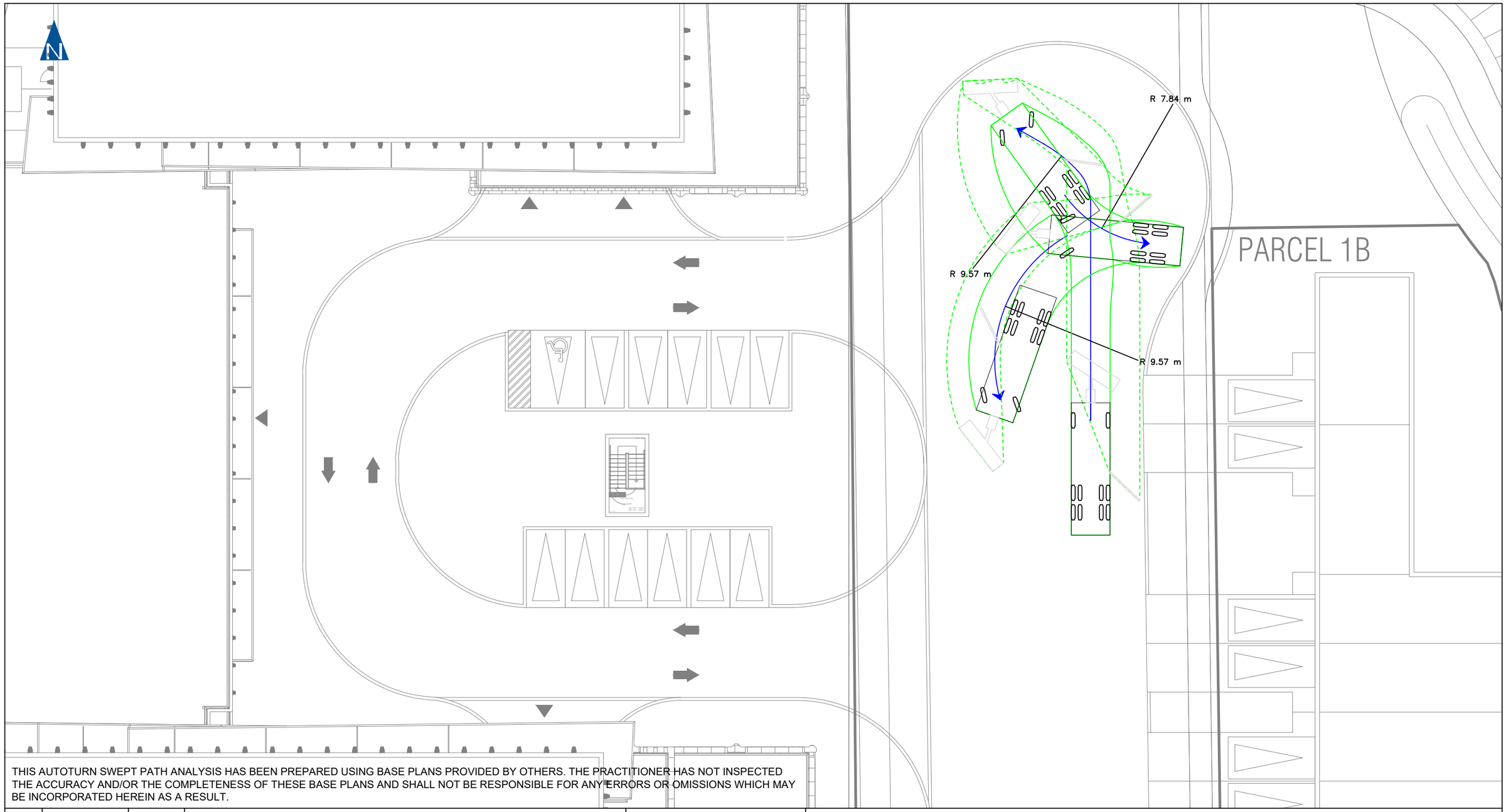
Oakville care-A-van

	meters
Width	: 2.44
Track	: 2.44
Lock to Lock Time	: 6.0
Steering Angle	: 35.0

AUTOTURN ASSESSMENT
3275 TRAFALGAR ROAD
TOWN OF OAKVILLE

paradigm TRANSPORTATION SOLUTIONS LIMITED

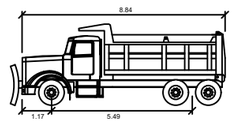
PROJECT NO.: 220208	DATE: SEPTEMBER 2024	SCALE: 1:400	DRAWING NO.: 03
DRAWN: SC	DESIGN: SC	CHECK: GL	



THIS AUTOTURN SWEPT PATH ANALYSIS HAS BEEN PREPARED USING BASE PLANS PROVIDED BY OTHERS. THE PRACTITIONER HAS NOT INSPECTED THE ACCURACY AND/OR THE COMPLETENESS OF THESE BASE PLANS AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT.

NO.	DATE	INITIAL	REVISION DETAIL

DESIGN VEHICLE:



2015 Tandem Plow Truck
meters

Width	: 2.59	Lock to Lock Time	: 6.0
Track	: 2.59	Steering Angle	: 35.0
		Articulating Angle	: AA

AUTOTURN ASSESSMENT
3275 TRAFALGAR ROAD
TOWN OF OAKVILLE

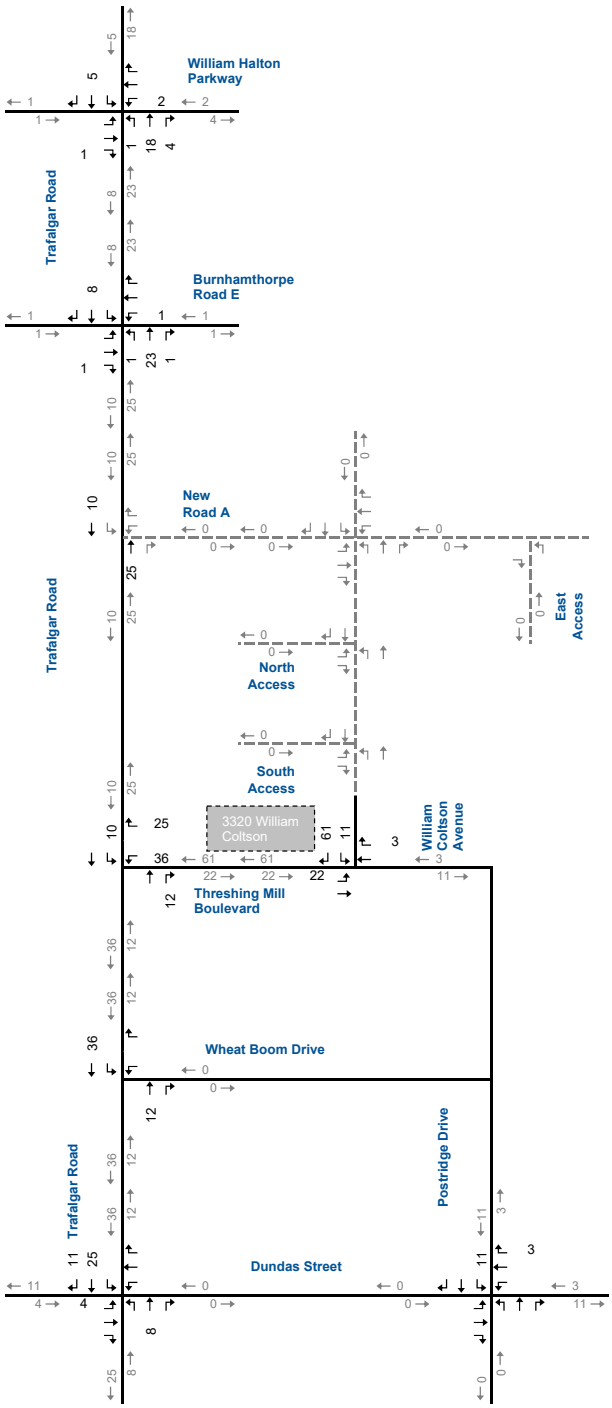
paradigm TRANSPORTATION SOLUTIONS LIMITED

PROJECT NO.: 220208	DATE: SEPTEMBER 2024	SCALE: 1:250	DRAWING NO.: 04
DRAWN: SC	DESIGN: SC	CHECK: GL	

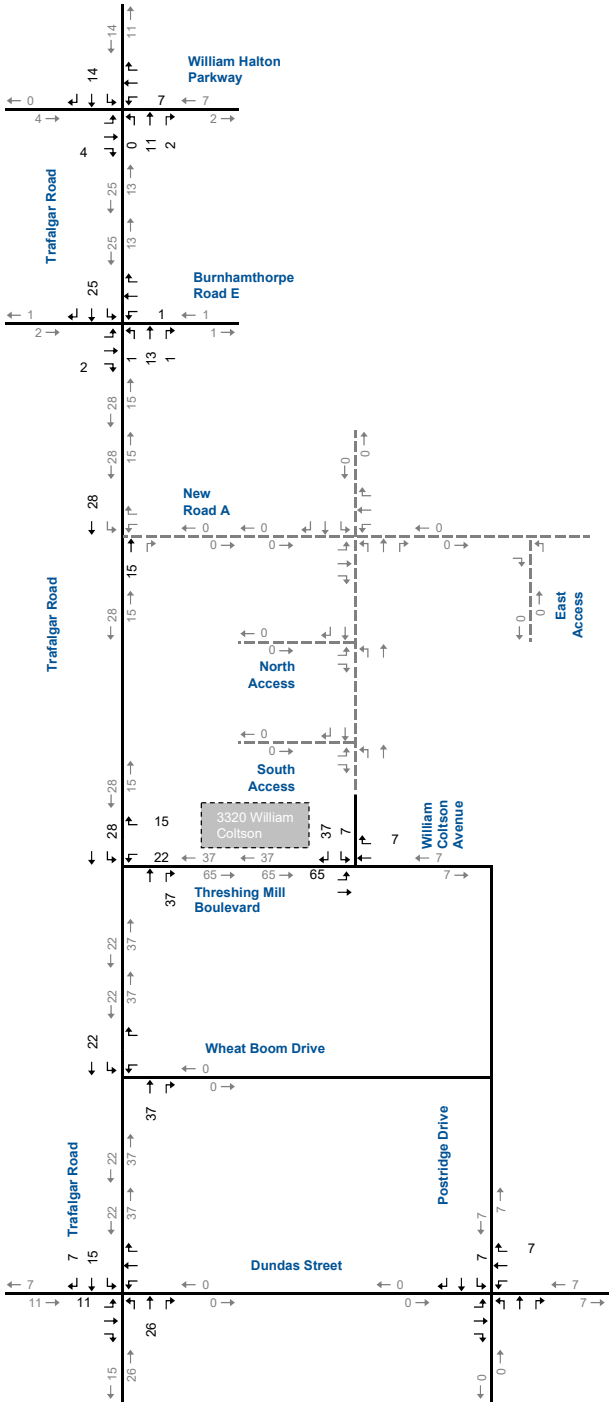
Appendix E

Background Development Traffic Assignment

AM Peak Hour

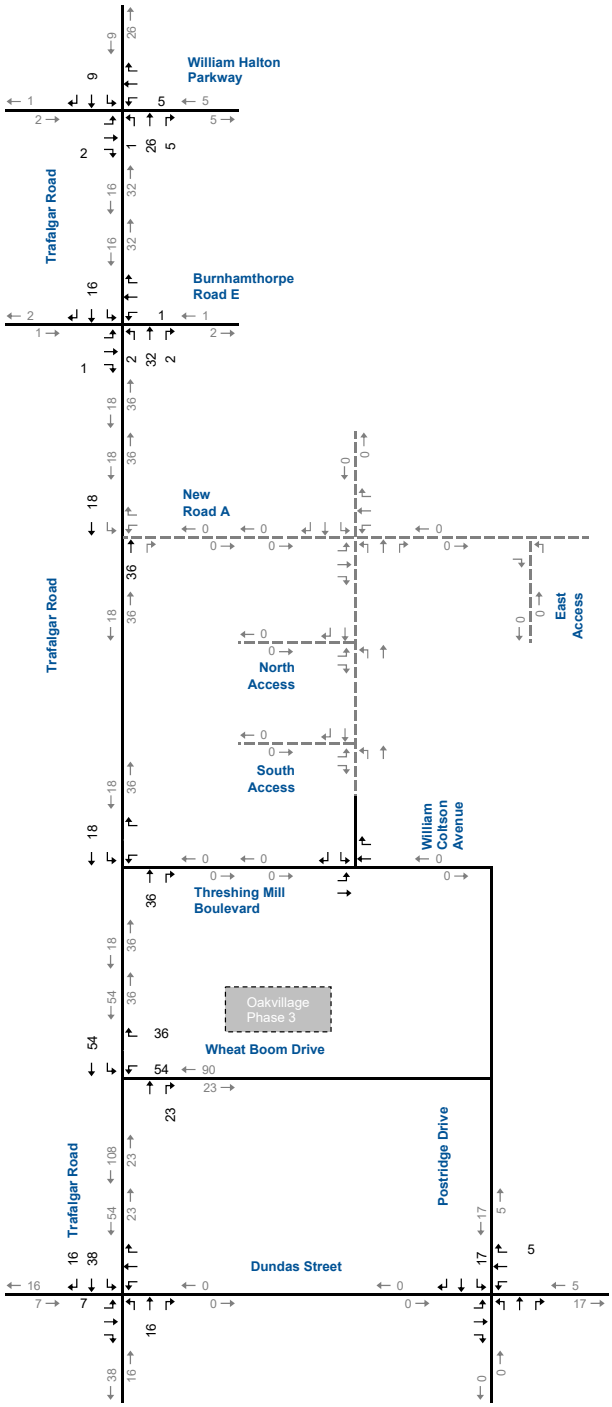


PM Peak Hour

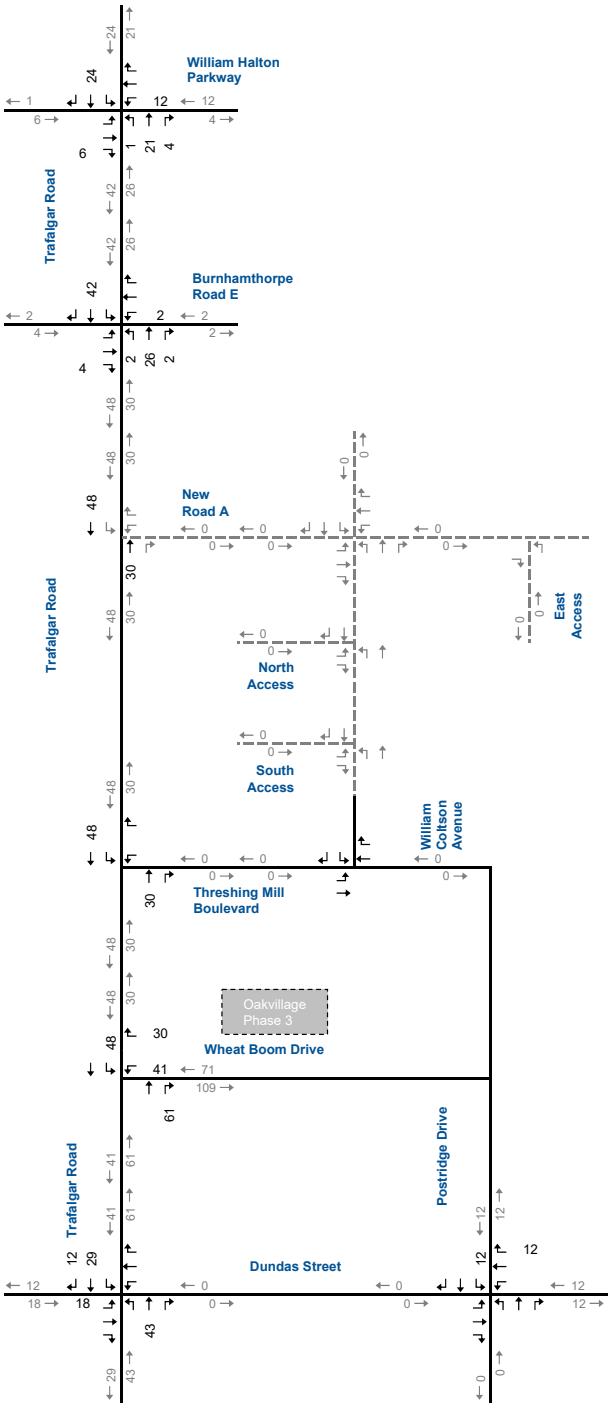


Background Development Traffic Volumes 3220 William Coltson Avenue

AM Peak Hour



PM Peak Hour



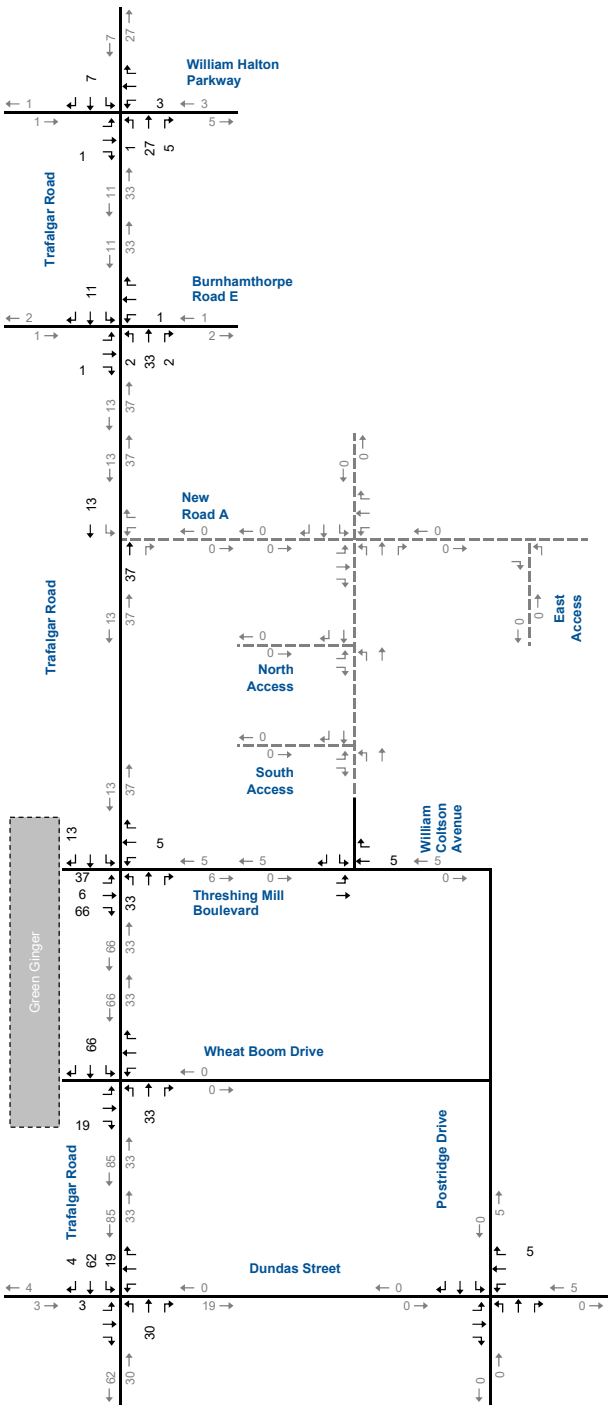
paradigm TRANSPORTATION SOLUTIONS LIMITED

Background Development Traffic Volumes OakVillage Phase 3

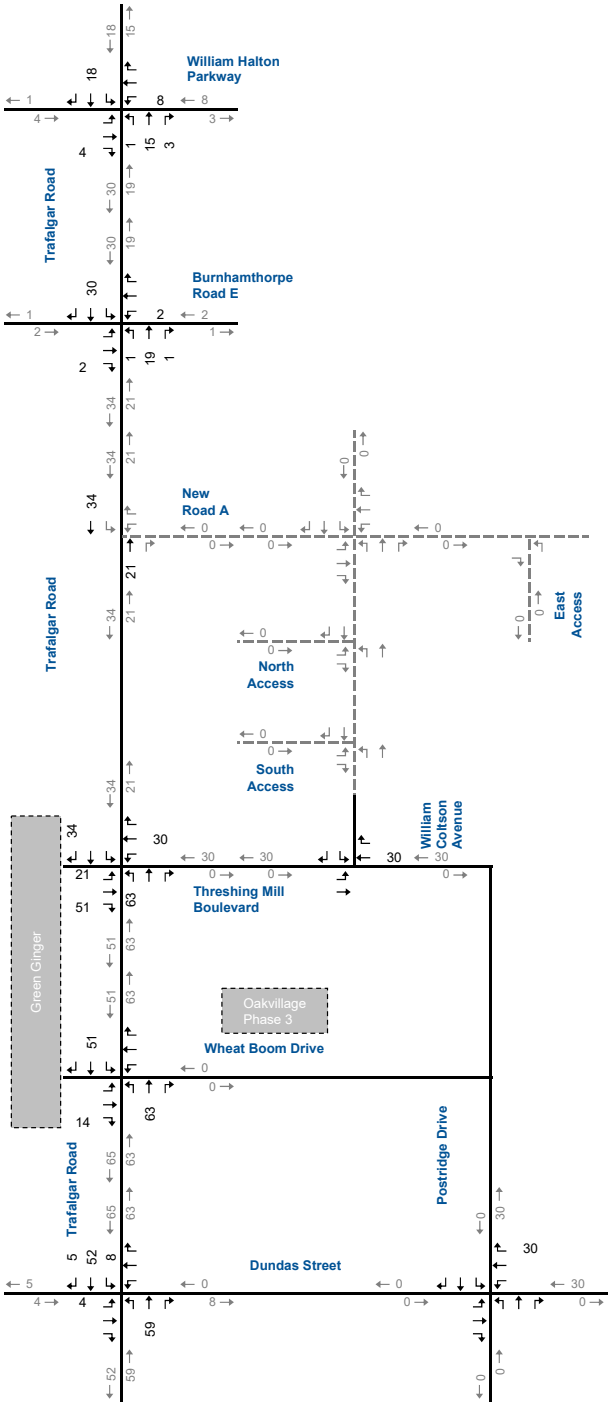
3275 Trafalgar Road, Oakville TIS
220208

Appendix D2

AM Peak Hour



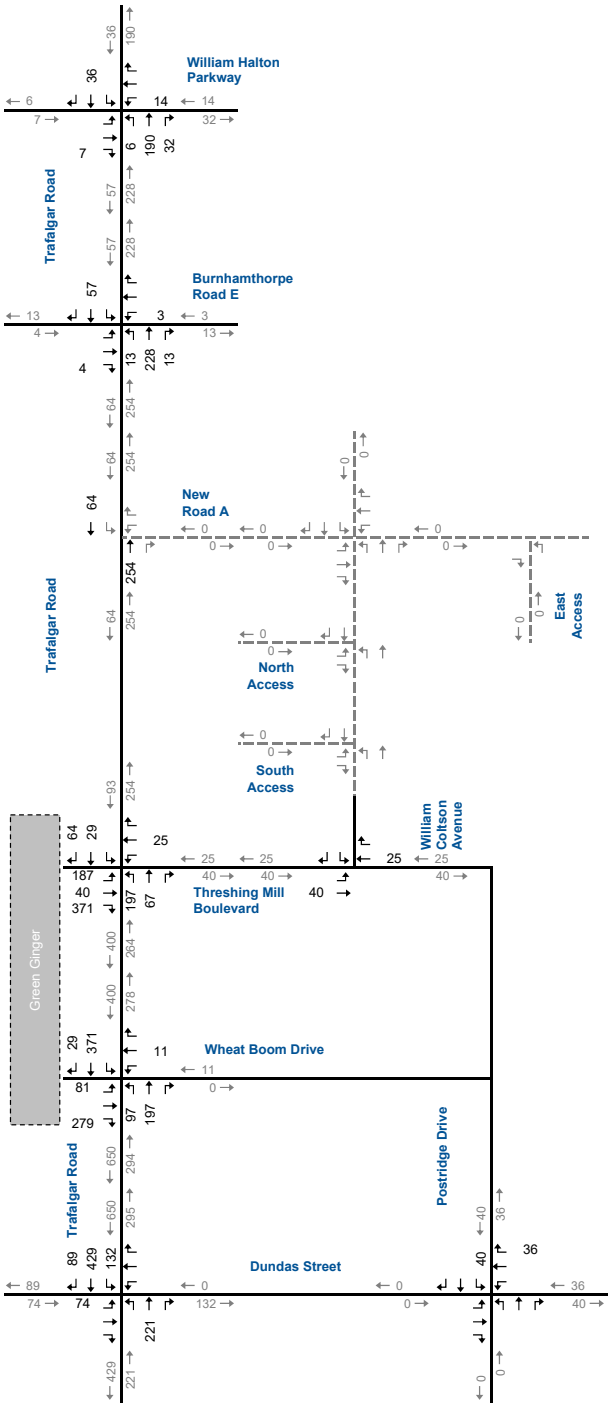
PM Peak Hour



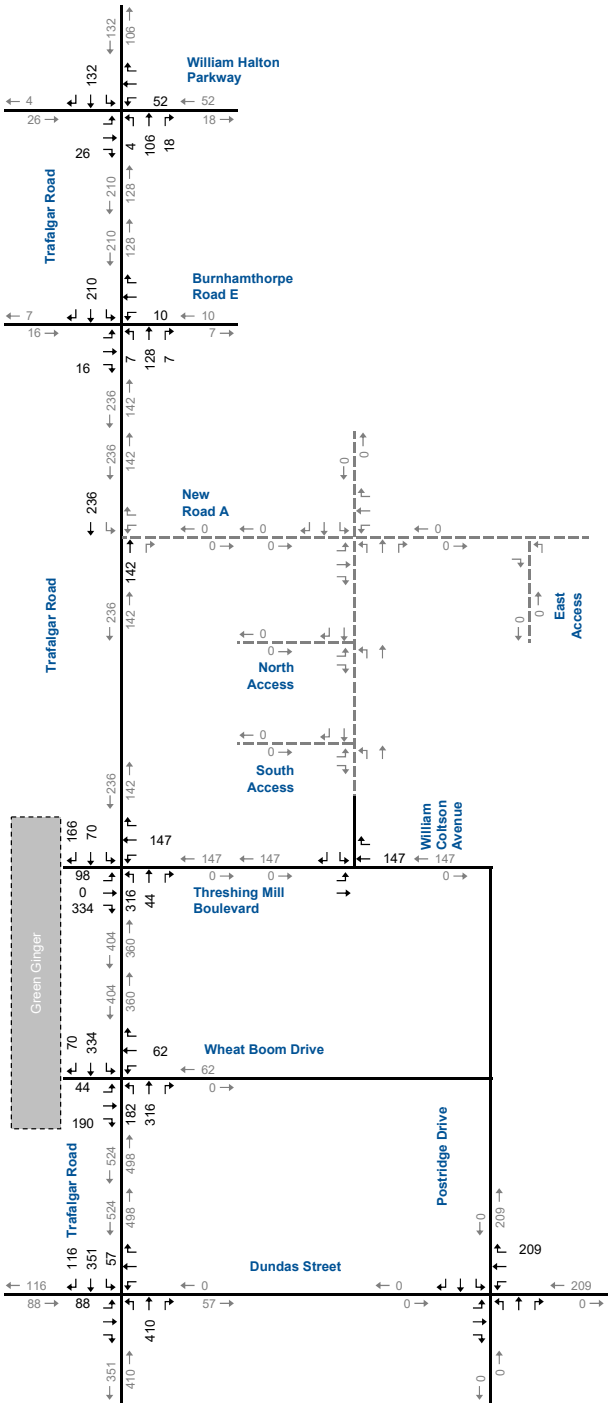
paradigm TRANSPORTATION SOLUTIONS LIMITED

Background Development Traffic Volumes Green Ginger 2028

AM Peak Hour



PM Peak Hour



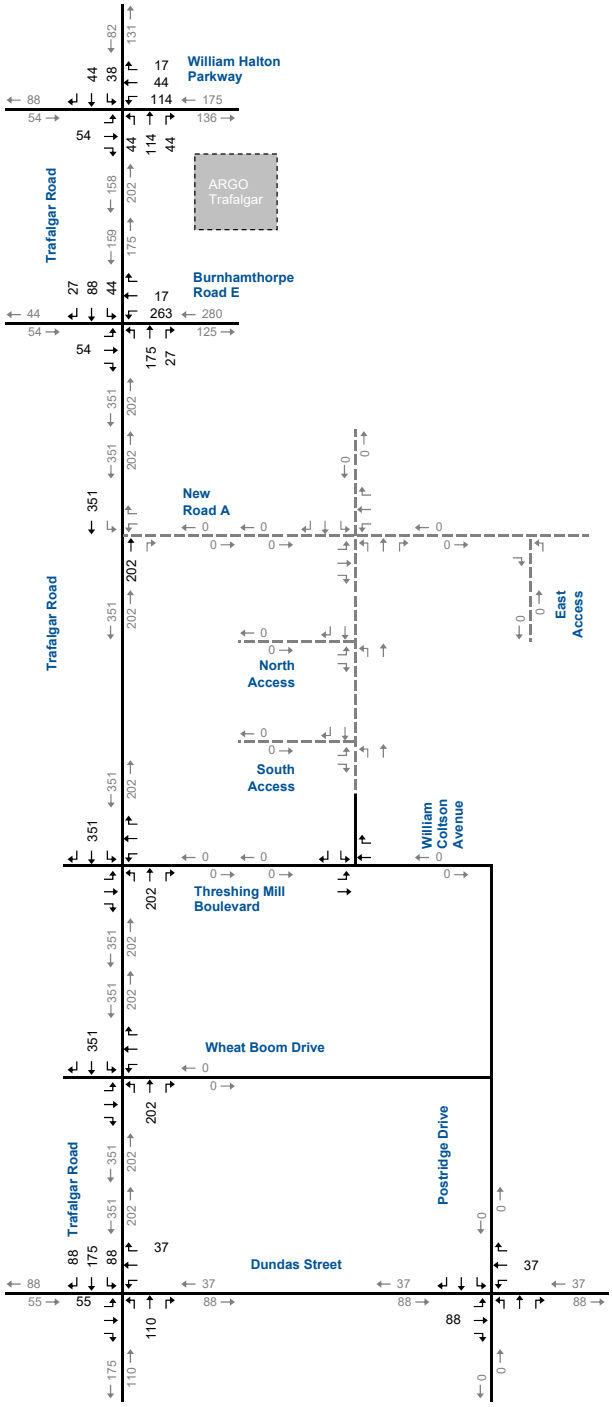
paradigm TRANSPORTATION SOLUTIONS LIMITED

Background Development Traffic Volumes Green Ginger 2035

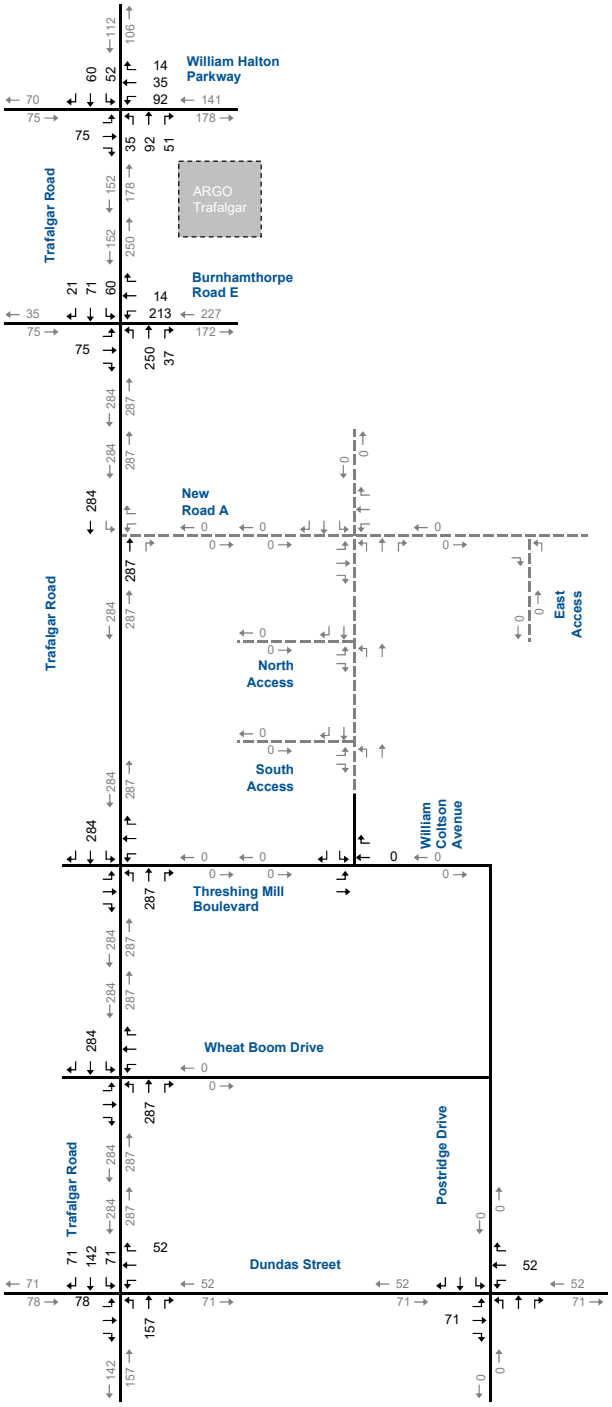
3275 Trafalgar Road, Oakville TIS
220208

Appendix D3-2

AM Peak Hour



PM Peak Hour



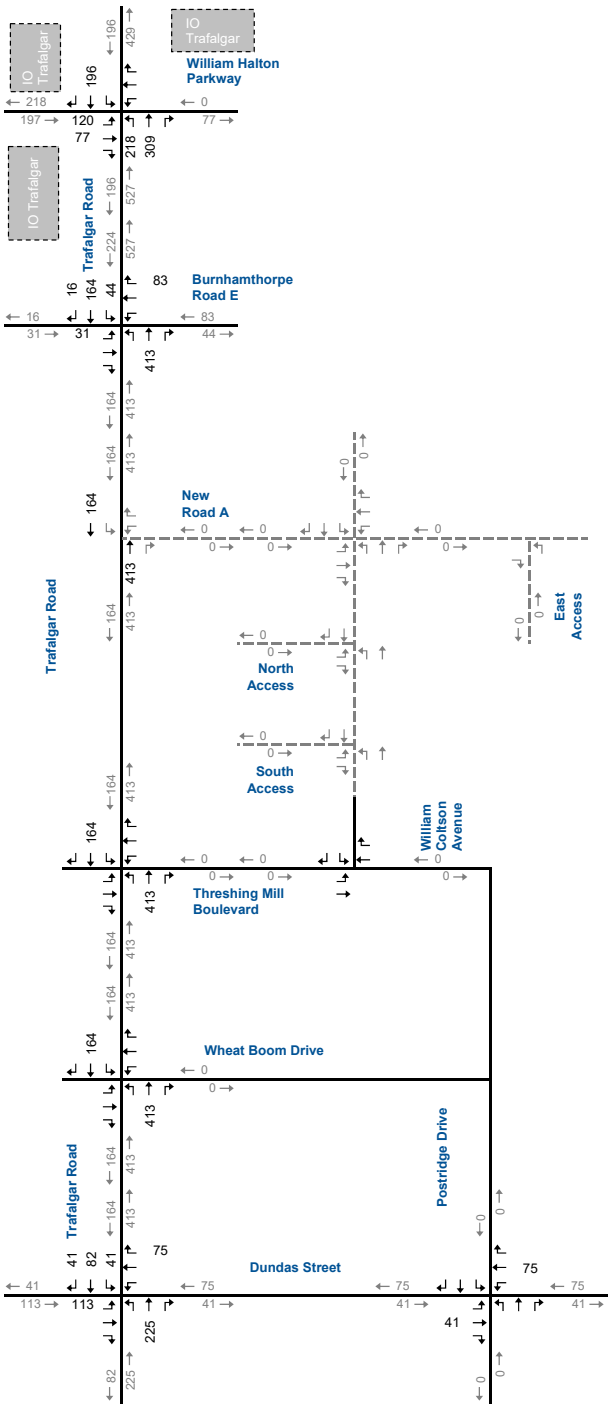
paradigm TRANSPORTATION SOLUTIONS LIMITED

Background Development Traffic Volumes Argo Trafalgar

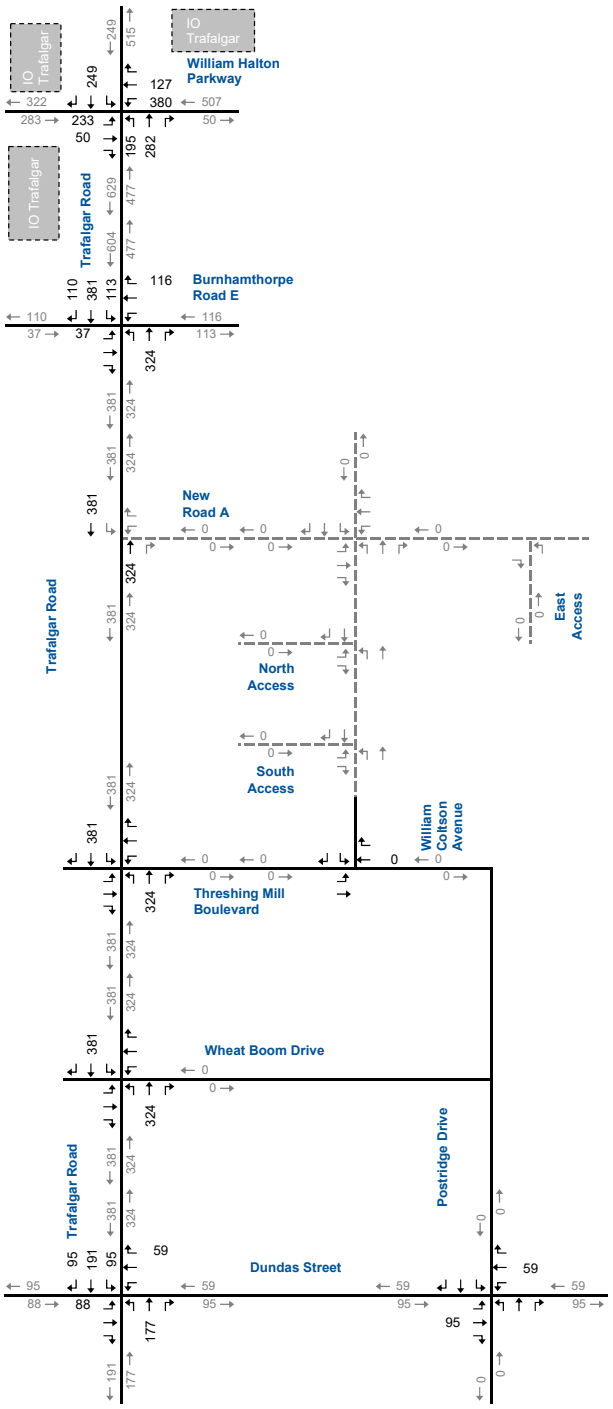
3275 Trafalgar Road, Oakville TIS
220208

Appendix D4

AM Peak Hour

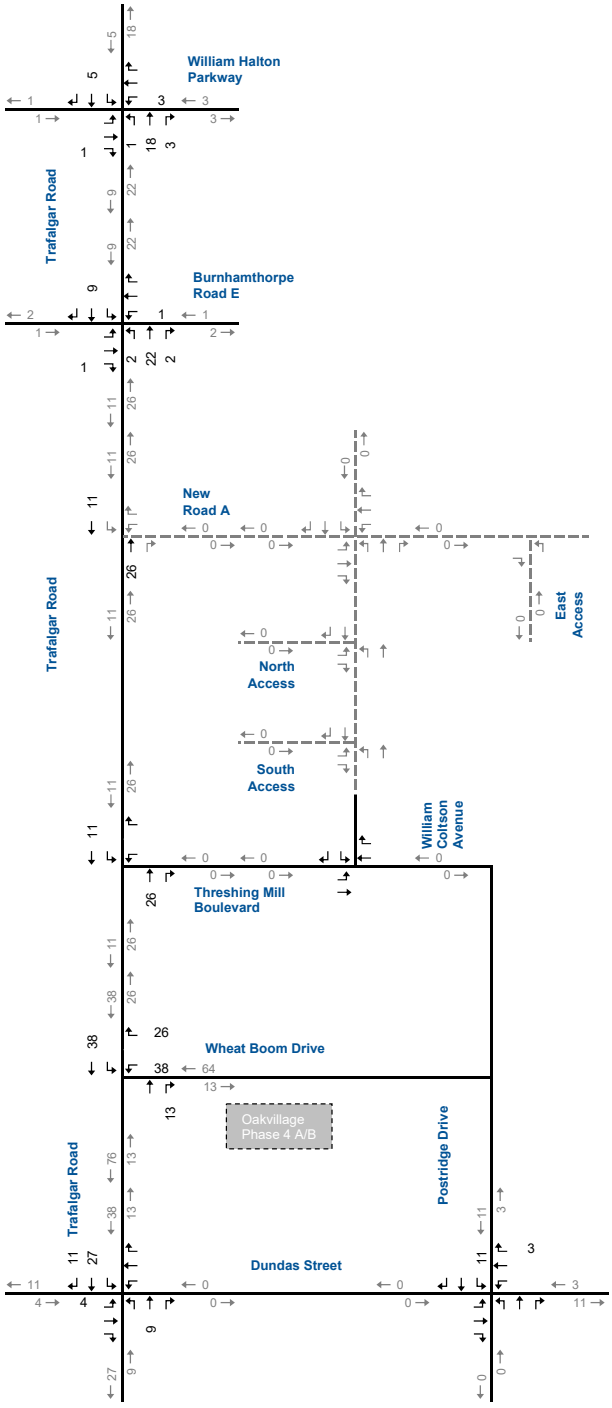


PM Peak Hour

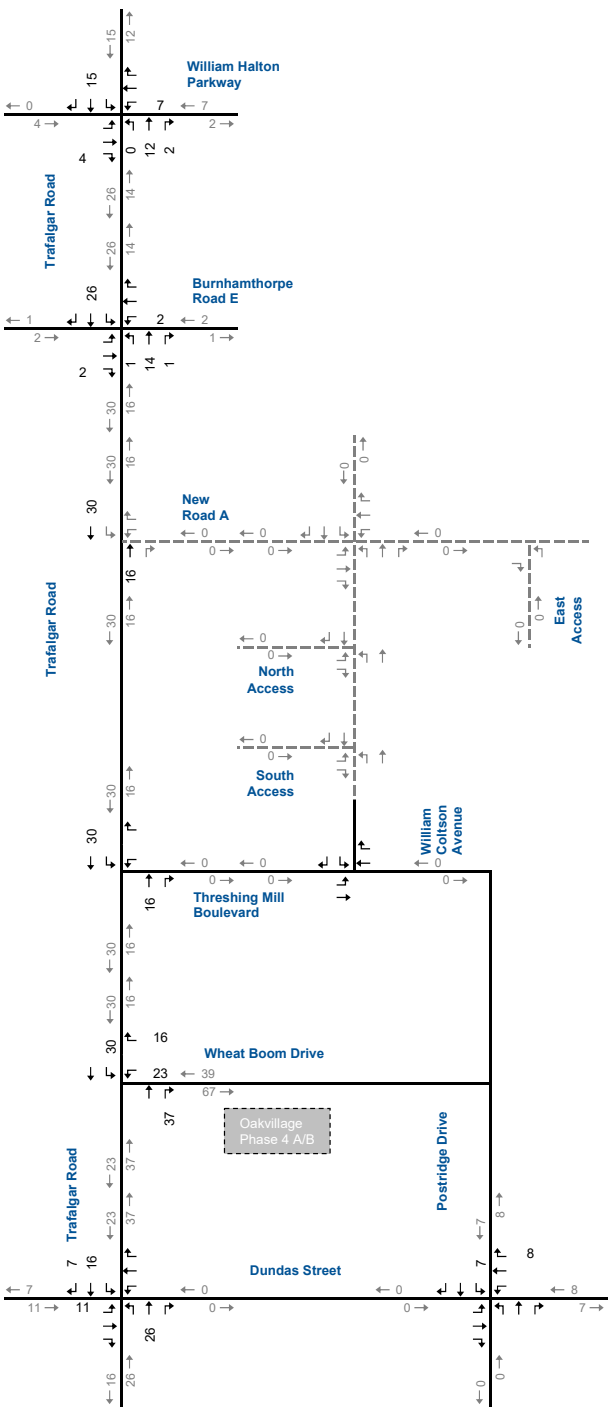


Background Development Traffic Volumes
4233, 4040 and 4180 Trafalgar Road

AM Peak Hour



PM Peak Hour



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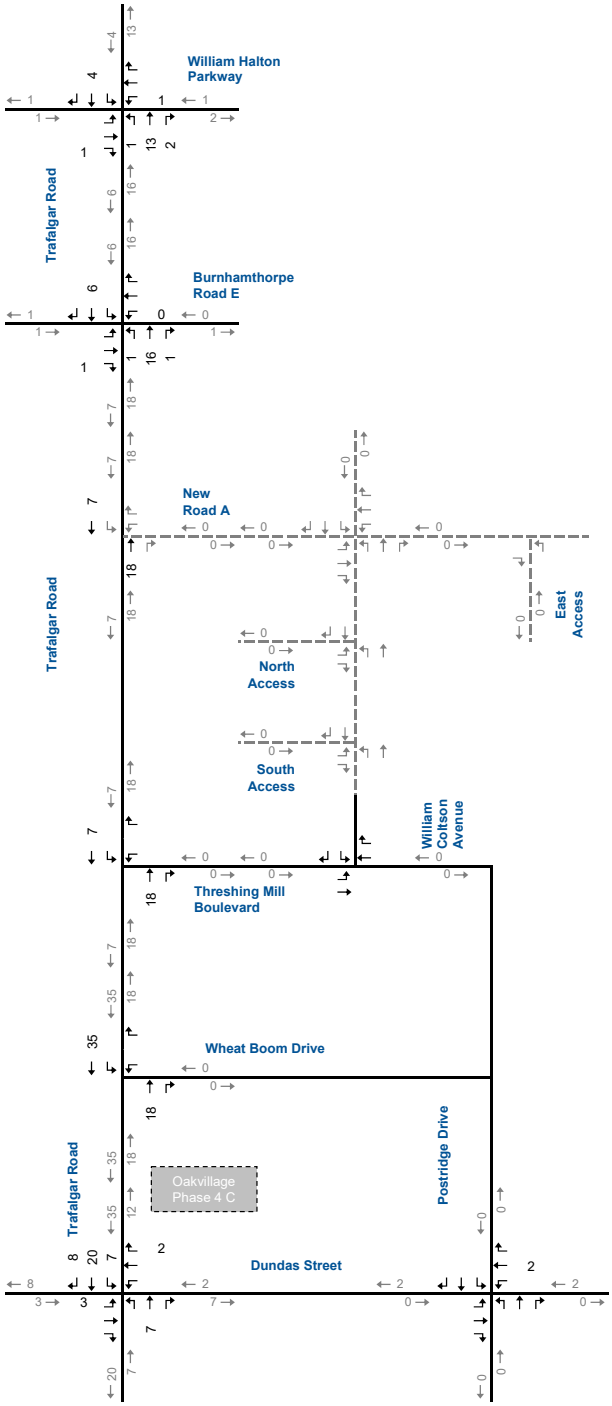
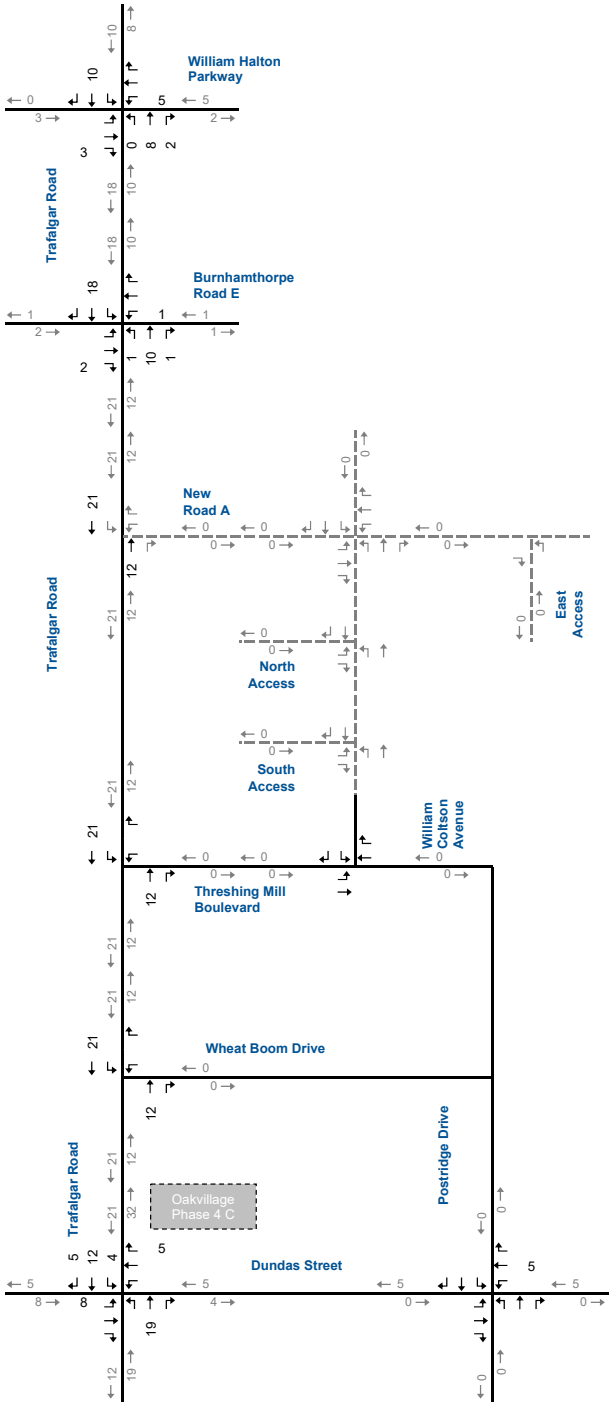
Background Development Traffic Volumes OakVillage Phase 4A/B

AM Peak Hour



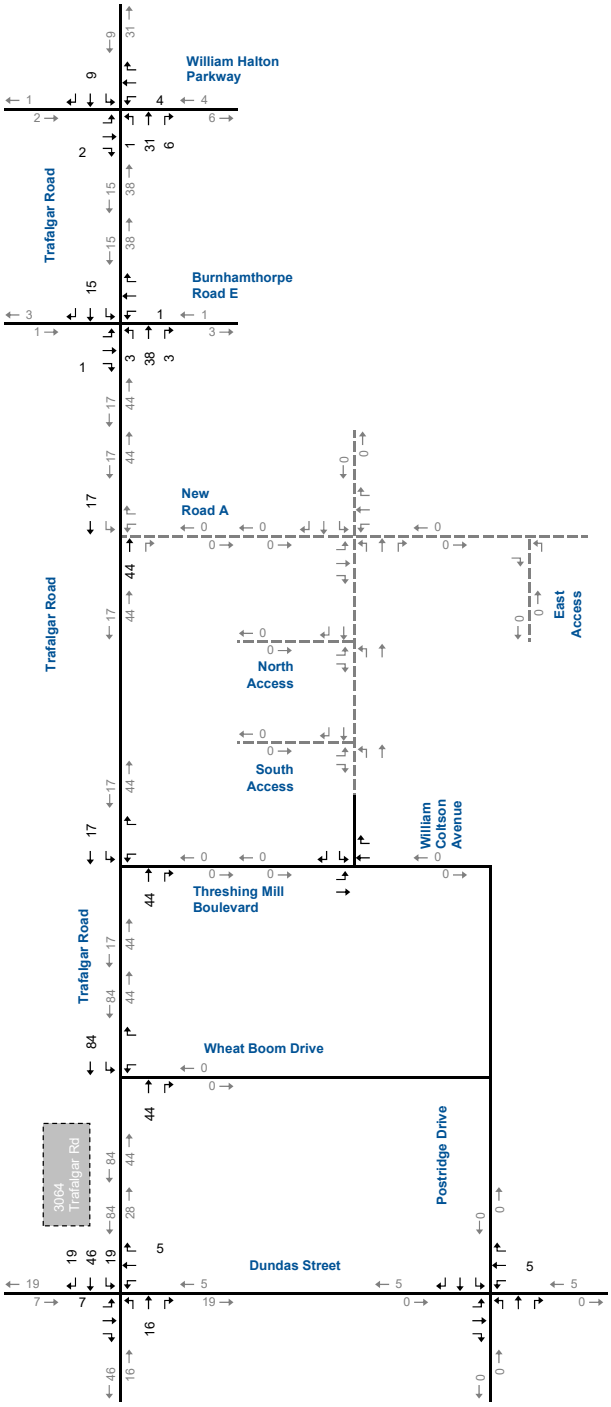
PM Peak Hour



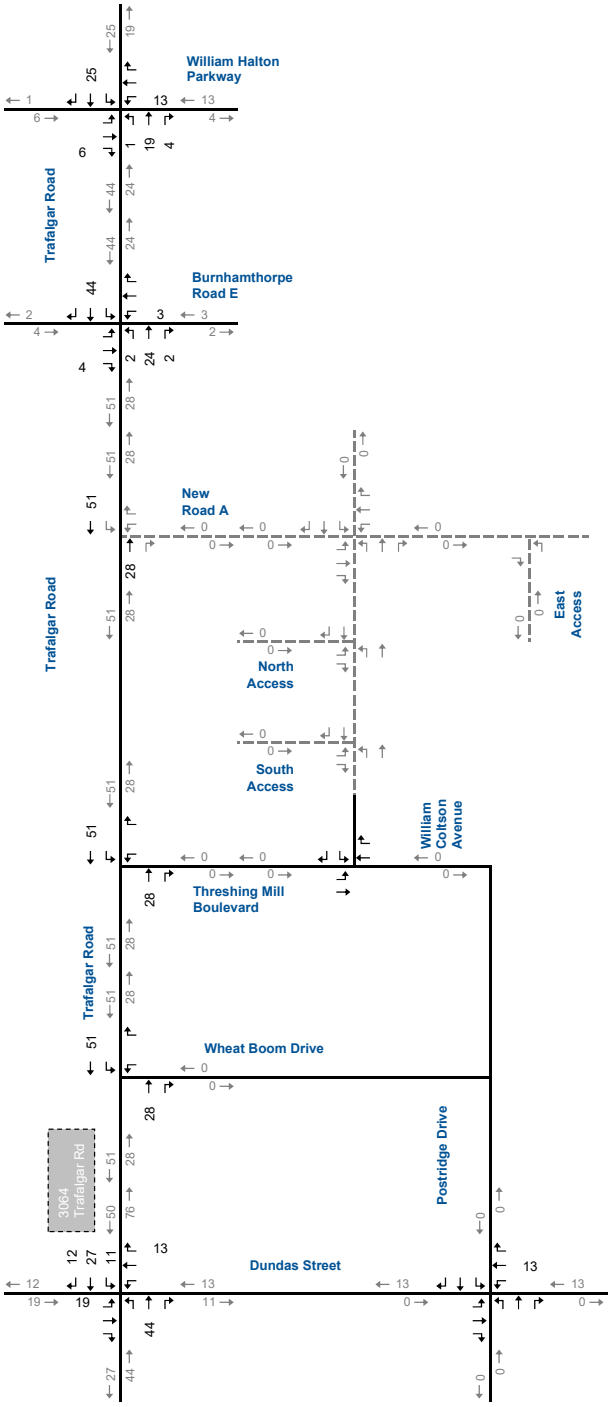
paradigm TRANSPORTATION SOLUTIONS LIMITED

Background Development Traffic Volumes OakVillage Phase 4C

AM Peak Hour



PM Peak Hour



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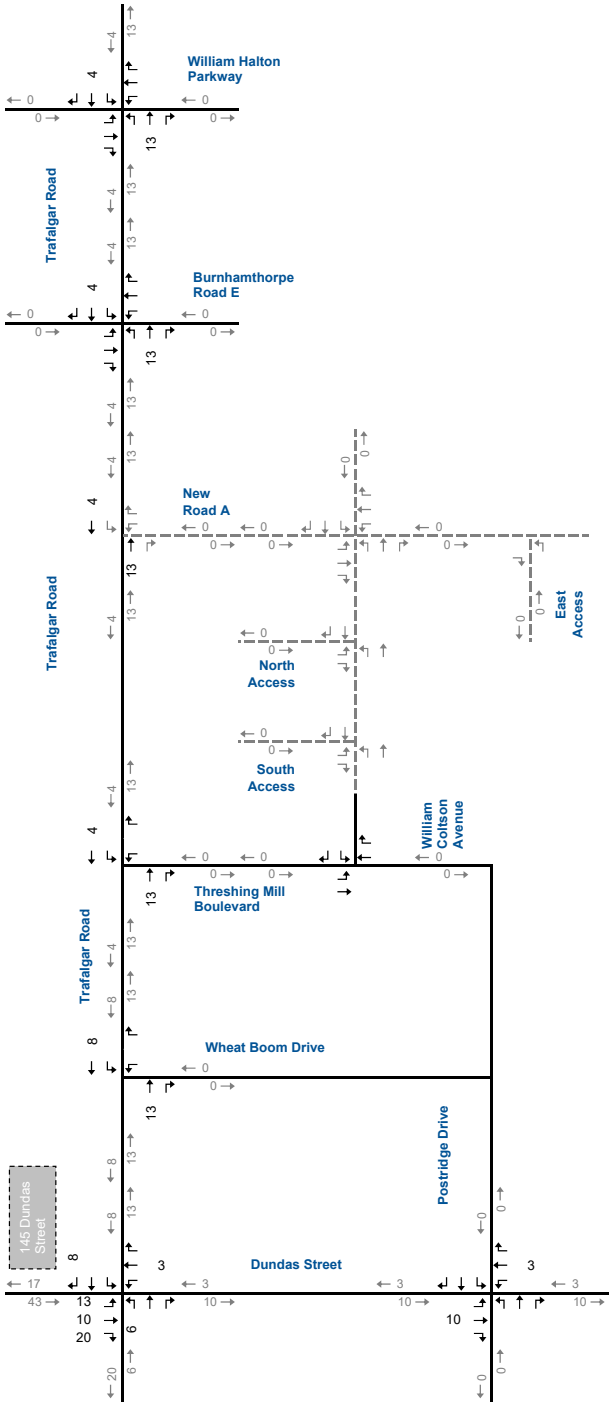
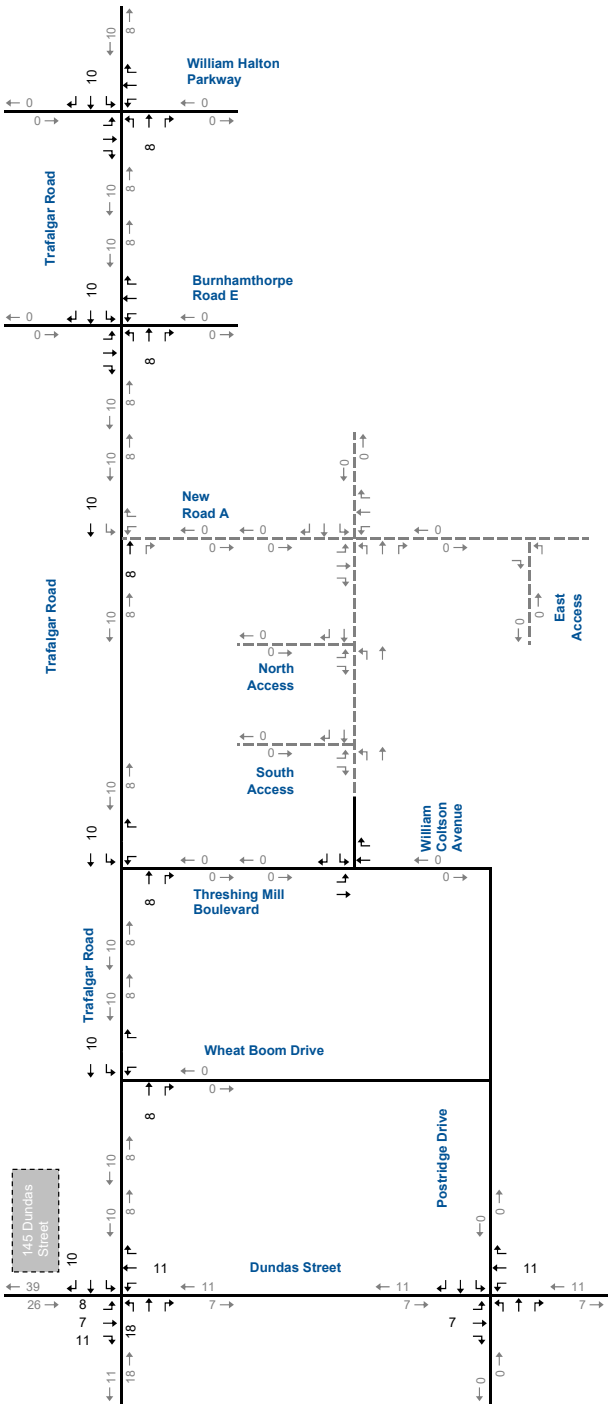
Background Development Traffic Volumes 3064 Trafalgar Road

AM Peak Hour



PM Peak Hour



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Background Development Traffic Volumes 145 Dundas Street East

Appendix F

Synchro Reports

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	182	402	169	24	776	24	95	760	23	182	599	119
Future Volume (vph)	182	402	169	24	776	24	95	760	23	182	599	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4848	1553	1687	5136	1429
Flt Permitted	0.113			0.491			0.392			0.292		
Satd. Flow (perm)	201	3610	1583	933	3374	1553	745	4848	1553	519	5136	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			174			77			78			123
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	188	414	174	25	800	25	98	784	24	188	618	123
Shared Lane Traffic (%)												
Lane Group Flow (vph)	188	414	174	25	800	25	98	784	24	188	618	123
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	12.6	43.4	43.4	12.6	43.4	43.4	14.0	70.0	70.0	14.0	70.0	70.0
Total Split (%)	9.0%	31.0%	31.0%	9.0%	31.0%	31.0%	10.0%	50.0%	50.0%	10.0%	50.0%	50.0%
Maximum Green (s)	9.6	36.4	36.4	9.6	36.4	36.4	11.0	63.1	63.1	11.0	63.1	63.1
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	52.2	42.5	42.5	47.5	36.2	36.2	76.5	63.7	63.7	79.9	65.4	65.4
Actuated g/C Ratio	0.37	0.30	0.30	0.34	0.26	0.26	0.55	0.46	0.46	0.57	0.47	0.47
v/c Ratio	1.07	0.38	0.29	0.07	0.92	0.05	0.21	0.36	0.03	0.49	0.26	0.17
Control Delay	120.1	40.5	6.7	28.1	66.6	0.2	14.3	25.5	0.1	18.6	23.2	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	120.1	40.5	6.7	28.1	66.6	0.2	14.3	25.5	0.1	18.6	23.2	4.1
LOS	F	D	A	C	E	A	B	C	A	B	C	A
Approach Delay		52.2			63.5			23.6			19.7	
Approach LOS		D			E			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 38.8 Intersection LOS: D
Intersection Capacity Utilization 76.5% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 1: Trafalgar Road & William Halton Parkway

Queues
1: Trafalgar Road & William Halton Parkway

Base
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	188	414	174	25	800	25	98	784	24	188	618	123
v/c Ratio	1.07	0.38	0.29	0.07	0.92	0.05	0.21	0.36	0.03	0.49	0.26	0.17
Control Delay	120.1	40.5	6.7	28.1	66.6	0.2	14.3	25.5	0.1	18.6	23.2	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	120.1	40.5	6.7	28.1	66.6	0.2	14.3	25.5	0.1	18.6	23.2	4.1
Queue Length 50th (m)	~40.8	51.9	0.0	4.6	119.7	0.0	12.2	53.9	0.0	24.9	39.3	0.0
Queue Length 95th (m)	#93.6	69.3	18.5	11.2	#157.0	0.0	21.1	65.2	0.0	38.2	50.1	11.8
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	176	1094	601	391	877	460	501	2206	748	388	2399	733
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.07	0.38	0.29	0.06	0.91	0.05	0.20	0.36	0.03	0.48	0.26	0.17

Intersection Summary

~ 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.

HCM 2010 Signalized Intersection Summary
1: Trafalgar Road & William Halton Parkway

Base
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	402	169	24	776	24	95	760	23	182	599	119
Future Volume (veh/h)	182	402	169	24	776	24	95	760	23	182	599	119
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	188	414	174	25	800	25	98	784	24	188	618	123
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	183	1060	465	278	864	398	442	2239	717	401	2487	692
Arrive On Green	0.07	0.29	0.29	0.03	0.26	0.26	0.05	0.46	0.46	0.07	0.48	0.48
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4848	1553	1691	5136	1429
Grp Volume(v), veh/h	188	414	174	25	800	25	98	784	24	188	618	123
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1616	1553	1691	1712	1429
Q Serve(g_s), s	9.6	12.8	12.2	1.4	32.4	1.7	3.9	14.5	1.2	7.9	9.9	6.8
Cycle Q Clear(g_c), s	9.6	12.8	12.2	1.4	32.4	1.7	3.9	14.5	1.2	7.9	9.9	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	1060	465	278	864	398	442	2239	717	401	2487	692
V/C Ratio(X)	1.03	0.39	0.37	0.09	0.93	0.06	0.22	0.35	0.03	0.47	0.25	0.18
Avail Cap(c_a), veh/h	183	1060	465	345	877	404	495	2239	717	414	2487	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	39.5	39.2	36.3	50.8	39.4	17.9	24.2	20.6	17.5	21.2	20.4
Incr Delay (d2), s/veh	73.8	0.5	1.1	0.1	16.0	0.1	0.3	0.4	0.1	0.9	0.2	0.6
Initial Q Delay(d3),s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	6.5	5.5	0.7	17.0	0.7	2.0	6.6	0.5	3.8	4.7	2.8
LnGrp Delay(d),s/veh	116.8	40.0	40.3	36.4	66.7	39.5	18.2	24.6	20.7	18.4	21.4	20.9
LnGrp LOS	F	D	D	D	E	D	B	C	C	B	C	C
Approach Vol, veh/h		776			850			906			929	
Approach Delay, s/veh		58.7			65.0			23.8			20.7	
Approach LOS		E			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	71.6	7.4	48.1	9.8	74.7	12.6	42.9
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	11.0	* 63	9.6	36.4	11.0	* 63	9.6	36.4
Max Q Clear Time (g_c+I1), s	9.9	16.5	3.4	14.8	5.9	11.9	11.6	34.4
Green Ext Time (p_c), s	0.1	14.9	0.0	6.9	0.1	12.8	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	40.9
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	189	53	37	119	30	54	617	58	46	632	75
Future Volume (vph)	120	189	53	37	119	30	54	617	58	46	632	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.967			0.970			0.987			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1786	0	1805	1786	0	1770	3320	0	1805	3305	0
Flt Permitted	0.546			0.312			0.357			0.322		
Satd. Flow (perm)	1007	1786	0	593	1786	0	665	3320	0	612	3305	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			12			9			16	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	132	208	58	41	131	33	59	678	64	51	695	82
Shared Lane Traffic (%)												
Lane Group Flow (vph)	132	266	0	41	164	0	59	742	0	51	777	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	

Lanes, Volumes, Timings
2: Trafalgar Road & Burnhamthorpe Road E

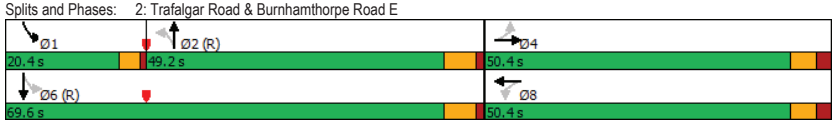
Base
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		7.0	20.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		26.0	26.0		11.0	26.0	
Total Split (s)	50.4	50.4		50.4	50.4		49.2	49.2		20.4	69.6	
Total Split (%)	42.0%	42.0%		42.0%	42.0%		41.0%	41.0%		17.0%	58.0%	
Maximum Green (s)	44.4	44.4		44.4	44.4		43.2	43.2		16.4	63.6	
Yellow Time (s)	3.7	3.7		3.7	3.7		4.6	4.6		3.0	4.6	
All-Red Time (s)	2.3	2.3		2.3	2.3		1.4	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	22.8	22.8		22.8	22.8		76.2	76.2		87.2	85.2	
Actuated g/C Ratio	0.19	0.19		0.19	0.19		0.64	0.64		0.73	0.71	
v/c Ratio	0.69	0.76		0.37	0.47		0.14	0.35		0.10	0.33	
Control Delay	63.0	57.4		49.5	43.2		12.5	12.0		6.2	7.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	63.0	57.4		49.5	43.2		12.5	12.0		6.2	7.5	
LOS	E	E		D	D		B	B		A	A	
Approach Delay		59.2			44.5			12.1			7.4	
Approach LOS		E			D			B			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 21.7 Intersection LOS: C
Intersection Capacity Utilization 78.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E



Queues
2: Trafalgar Road & Burnhamthorpe Road E

Base
AM Peak Hour

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	132	266	41	164	59	742	51	777
v/c Ratio	0.69	0.76	0.37	0.47	0.14	0.35	0.10	0.33
Control Delay	63.0	57.4	49.5	43.2	12.5	12.0	6.2	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.0	57.4	49.5	43.2	12.5	12.0	6.2	7.5
Queue Length 50th (m)	30.8	60.1	8.9	33.8	5.7	43.8	3.1	33.3
Queue Length 95th (m)	49.6	83.6	19.4	51.2	15.1	68.2	8.6	54.2
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	372	669	219	668	422	2112	607	2351
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.40	0.19	0.25	0.14	0.35	0.08	0.33

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	189	53	37	119	30	54	617	58	46	632	75
Future Volume (veh/h)	120	189	53	37	119	30	54	617	58	46	632	75
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1847	1900	1900	1841	1900	1863	1771	1900	1900	1768	1900
Adj Flow Rate, veh/h	132	208	58	41	131	33	59	678	64	51	695	82
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	232	308	86	156	315	79	463	1857	175	500	2054	242
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.60	0.60	0.60	0.05	0.68	0.68
Sat Flow, veh/h	1205	1391	388	1131	1420	358	692	3108	293	1810	3027	357
Grp Volume(v), veh/h	132	0	266	41	0	164	59	367	375	51	385	392
Grp Sat Flow(s),veh/h/ln	1205	0	1779	1131	0	1778	692	1682	1719	1810	1680	1705
Q Serve(g_s), s	12.7	0.0	16.4	4.1	0.0	9.5	4.7	13.5	13.5	1.2	11.5	11.5
Cycle Q Clear(g_c), s	22.1	0.0	16.4	20.6	0.0	9.5	6.5	13.5	13.5	1.2	11.5	11.5
Prop In Lane	1.00		0.22	1.00		0.20	1.00		0.17	1.00		0.21
Lane Grp Cap(c), veh/h	232	0	394	156	0	394	463	1005	1027	500	1139	1157
V/C Ratio(X)	0.57	0.00	0.67	0.26	0.00	0.42	0.13	0.36	0.37	0.10	0.34	0.34
Avail Cap(c_a), veh/h	411	0	658	324	0	658	463	1005	1027	661	1139	1157
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	0.0	42.7	52.2	0.0	40.0	11.4	12.4	12.4	8.1	8.1	8.1
Incr Delay (d2), s/veh	2.2	0.0	2.0	0.9	0.0	0.7	0.6	1.0	1.0	0.1	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	8.3	1.3	0.0	4.7	1.0	6.5	6.6	0.6	5.5	5.6
LnGrp Delay(d),s/veh	51.7	0.0	44.8	53.0	0.0	40.8	12.0	13.5	13.4	8.2	8.9	8.9
LnGrp LOS	D		D	D		D	B	B	B	A	A	A
Approach Vol, veh/h		398			205			801			828	
Approach Delay, s/veh		47.1			43.2			13.3			8.8	
Approach LOS		D			D			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	9.7	77.7		32.6		87.4		32.6
Change Period (Y+Rc), s	4.0	* 6		6.0		* 6		6.0
Max Green Setting (Gmax), s	16.4	* 43		44.4		* 64		44.4
Max Q Clear Time (g_c+I1), s	3.2	15.5		24.1		13.5		22.6
Green Ext Time (p_c), s	0.1	11.8		2.4		14.1		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	20.4
HCM 2010 LOS	C

Notes

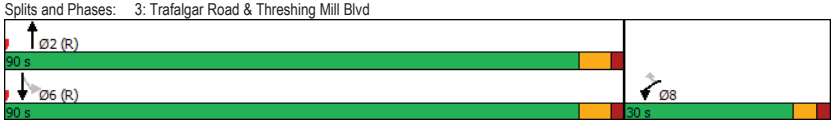
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	19	93	611	21	93	672
Future Volume (vph)	19	93	611	21	93	672
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.995			
Flt Protected	0.950					0.994
Satd. Flow (prot)	1410	1553	3349	0	0	3350
Flt Permitted	0.950					0.761
Satd. Flow (perm)	1410	1553	3349	0	0	2565
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		97	7			
Link Speed (k/h)	50		80			80
Link Distance (m)	120.2		286.4			537.5
Travel Time (s)	8.7		12.9			24.2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	28%	4%	7%	15%	8%	7%
Adj. Flow (vph)	20	97	636	22	97	700
Shared Lane Traffic (%)						
Lane Group Flow (vph)	20	97	658	0	0	797
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15		15	25	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (m)	2.0	2.0	10.0		2.0	10.0
Trailing Detector (m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Size(m)	2.0	2.0	0.6		2.0	0.6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(m)			9.4			9.4
Detector 2 Size(m)			0.6			0.6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	10.0	10.0	20.0		20.0	20.0
Minimum Split (s)	15.5	15.5	41.6		41.6	41.6
Total Split (s)	30.0	30.0	90.0		90.0	90.0
Total Split (%)	25.0%	25.0%	75.0%		75.0%	75.0%
Maximum Green (s)	24.5	24.5	83.4		83.4	83.4
Yellow Time (s)	3.3	3.3	4.6		4.6	4.6
All-Red Time (s)	2.2	2.2	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.5	5.5	6.6			6.6
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	5.0		5.0	5.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)			7.0		7.0	7.0
Flash Dont Walk (s)			28.0		28.0	28.0
Pedestrian Calls (#/hr)			0		0	0
Act Effct Green (s)	10.2	10.2	97.7			97.7
Actuated g/C Ratio	0.08	0.08	0.81			0.81
v/c Ratio	0.17	0.44	0.24			0.38
Control Delay	54.3	16.6	1.1			3.6
Queue Delay	0.0	0.0	0.0			0.0
Total Delay	54.3	16.6	1.1			3.6
LOS	D	B	A			A
Approach Delay	23.1		1.1			3.6
Approach LOS	C		A			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 13.2 (11%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.44			
Intersection Signal Delay: 4.0		Intersection LOS: A	
Intersection Capacity Utilization 62.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Trafalgar Road & Threshing Mill Blvd



Lane Group	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	20	97	658	797
v/c Ratio	0.17	0.44	0.24	0.38
Control Delay	54.3	16.6	1.1	3.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	54.3	16.6	1.1	3.6
Queue Length 50th (m)	4.7	0.0	1.1	21.7
Queue Length 95th (m)	12.9	16.8	5.5	30.0
Internal Link Dist (m)	96.2		262.4	513.5
Turn Bay Length (m)				
Base Capacity (vph)	287	394	2727	2088
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	0.07	0.25	0.24	0.38

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	19	93	611	21	93	672
Future Volume (veh/h)	19	93	611	21	93	672
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1484	1827	1771	1900	1900	1774
Adj Flow Rate, veh/h	20	97	636	22	97	700
Adj No. of Lanes	1	1	2	0	0	2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	28	4	7	15	8	7
Cap, veh/h	115	127	2713	94	298	2077
Arrive On Green	0.08	0.08	1.00	1.00	0.82	0.82
Sat Flow, veh/h	1414	1553	3408	115	318	2621
Grp Volume(v), veh/h	20	97	322	336	373	424
Grp Sat Flow(s),veh/h/ln	1414	1553	1683	1751	1325	1533
Q Serve(g_s), s	1.6	7.3	0.0	0.0	0.2	8.4
Cycle Q Clear(g_c), s	1.6	7.3	0.0	0.0	5.9	8.4
Prop In Lane	1.00	1.00		0.07	0.26	
Lane Grp Cap(c), veh/h	115	127	1376	1431	1121	1254
V/C Ratio(X)	0.17	0.77	0.23	0.23	0.33	0.34
Avail Cap(c_a), veh/h	289	317	1376	1431	1121	1254
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.98	0.98	1.00	1.00
Uniform Delay (d), s/veh	51.3	54.0	0.0	0.0	2.5	2.8
Incr Delay (d2), s/veh	0.7	9.2	0.4	0.4	0.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.5	0.2	0.2	3.0	3.7
LnGrp Delay(d),s/veh	52.0	63.2	0.4	0.4	3.3	3.5
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	117		658			797
Approach Delay, s/veh	61.3		0.4			3.4
Approach LOS	E		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		104.7				104.7		15.3
Change Period (Y+Rc), s		6.6				6.6		5.5
Max Green Setting (Gmax), s		83.4				83.4		24.5
Max Q Clear Time (g_c+I1), s		2.0				10.4		9.3
Green Ext Time (p_c), s		11.8				16.8		0.4

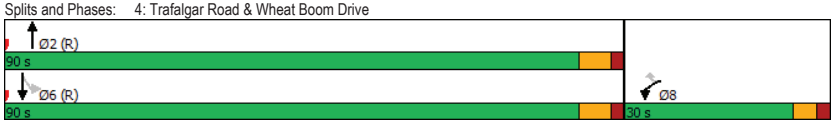
Intersection Summary		
HCM 2010 Ctrl Delay		6.5
HCM 2010 LOS		A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	15	57	572	17	32	655
Future Volume (vph)	15	57	572	17	32	655
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.996			
Flt Protected	0.950					0.998
Satd. Flow (prot)	1327	1252	3406	0	0	3354
Flt Permitted	0.950					0.896
Satd. Flow (perm)	1327	1252	3406	0	0	3011
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		61	6			
Link Speed (k/h)	50		60			80
Link Distance (m)	342.3		409.5			286.4
Travel Time (s)	24.6		24.6			12.9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	36%	29%	5%	25%	16%	7%
Adj. Flow (vph)	16	61	615	18	34	704
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	61	633	0	0	738
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		3.6			3.6
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15		15	25	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (m)	2.0	2.0	10.0		2.0	10.0
Trailing Detector (m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Size(m)	2.0	2.0	0.6		2.0	0.6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(m)			9.4			9.4
Detector 2 Size(m)			0.6			0.6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	10.0	10.0	20.0		20.0	20.0
Minimum Split (s)	15.5	15.5	26.6		26.6	26.6
Total Split (s)	30.0	30.0	90.0		90.0	90.0
Total Split (%)	25.0%	25.0%	75.0%		75.0%	75.0%
Maximum Green (s)	24.5	24.5	83.4		83.4	83.4
Yellow Time (s)	3.3	3.3	4.6		4.6	4.6
All-Red Time (s)	2.2	2.2	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.5	5.5	6.6			6.6
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)			7.0			
Flash Dont Walk (s)			28.0			
Pedestrian Calls (#/hr)			0			
Act Effct Green (s)	10.2	10.2	102.1			102.1
Actuated g/C Ratio	0.08	0.08	0.85			0.85
v/c Ratio	0.14	0.38	0.22			0.29
Control Delay	53.9	19.6	2.4			2.6
Queue Delay	0.0	0.0	0.0			0.0
Total Delay	53.9	19.6	2.4			2.6
LOS	D	B	A			A
Approach Delay	26.8		2.4			2.6
Approach LOS	C		A			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.38			
Intersection Signal Delay: 3.8		Intersection LOS: A	
Intersection Capacity Utilization 59.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	16	61	633	738
v/c Ratio	0.14	0.38	0.22	0.29
Control Delay	53.9	19.6	2.4	2.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	53.9	19.6	2.4	2.6
Queue Length 50th (m)	3.8	0.0	14.4	17.7
Queue Length 95th (m)	11.2	13.7	19.7	24.0
Internal Link Dist (m)	318.3		385.5	262.4
Turn Bay Length (m)				
Base Capacity (vph)	270	304	2899	2562
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	0.06	0.20	0.22	0.29

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	15	57	572	17	32	655
Future Volume (veh/h)	15	57	572	17	32	655
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1397	1473	1800	1900	1900	1769
Adj Flow Rate, veh/h	16	61	615	18	34	704
Adj No. of Lanes	1	1	2	0	0	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	36	29	5	25	16	7
Cap, veh/h	102	96	2790	82	125	2495
Arrive On Green	0.08	0.08	0.82	0.82	1.00	1.00
Sat Flow, veh/h	1331	1252	3483	99	112	3114
Grp Volume(v), veh/h	16	61	310	323	381	357
Grp Sat Flow(s),veh/h/ln	1331	1252	1710	1782	1617	1529
Q Serve(g_s), s	1.3	5.7	4.7	4.7	0.0	0.0
Cycle Q Clear(g_c), s	1.3	5.7	4.7	4.7	0.0	0.0
Prop In Lane	1.00	1.00		0.06	0.09	
Lane Grp Cap(c), veh/h	102	96	1406	1465	1362	1257
V/C Ratio(X)	0.16	0.63	0.22	0.22	0.28	0.28
Avail Cap(c_a), veh/h	272	256	1406	1465	1362	1257
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.93	0.93
Uniform Delay (d), s/veh	51.7	53.7	2.3	2.3	0.0	0.0
Incr Delay (d2), s/veh	0.7	6.7	0.4	0.3	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.1	2.3	2.4	0.2	0.2
LnGrp Delay(d),s/veh	52.4	60.4	2.7	2.7	0.5	0.5
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	77		633			738
Approach Delay, s/veh	58.8		2.7			0.5
Approach LOS	E		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		105.3				105.3		14.7
Change Period (Y+Rc), s		6.6				6.6		5.5
Max Green Setting (Gmax), s		83.4				83.4		24.5
Max Q Clear Time (g_c+I1), s		6.7				2.0		7.7
Green Ext Time (p_c), s		5.4				6.9		0.2

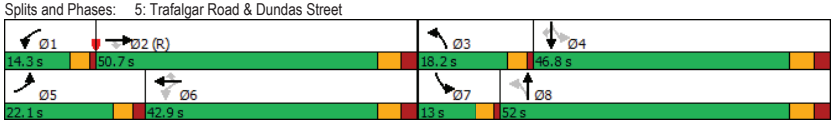
Intersection Summary		
HCM 2010 Ctrl Delay		4.5
HCM 2010 LOS		A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	188	1555	197	171	930	8	158	434	113	97	482	92
Future Volume (vph)	188	1555	197	171	930	8	158	434	113	97	482	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		0.0	70.0		65.0
Storage Lanes	2		1	1		1	1		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor			0.98	1.00			1.00					0.98
Frt			0.850			0.850		0.969				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	3332	0	1736	3438	1524
Flt Permitted	0.950			0.070			0.223			0.289		
Satd. Flow (perm)	3400	5085	1557	124	4715	1292	406	3332	0	528	3438	1497
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			196			172		27				171
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	192	1587	201	174	949	8	161	443	115	99	492	94
Shared Lane Traffic (%)												
Lane Group Flow (vph)	192	1587	201	174	949	8	161	558	0	99	492	94
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8			4		4
Detector Phase	5	2	2	1	6	6	3	8		7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0		7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5		11.0	16.5	16.5
Total Split (s)	22.1	50.7	50.7	14.3	42.9	42.9	18.2	52.0		13.0	46.8	46.8
Total Split (%)	17.0%	39.0%	39.0%	11.0%	33.0%	33.0%	14.0%	40.0%		10.0%	36.0%	36.0%
Maximum Green (s)	17.1	44.3	44.3	10.3	36.5	36.5	14.2	45.5		9.0	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7		3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8		1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5		4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5		3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None		None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0			27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0			0	0
Act Effct Green (s)	13.1	55.0	55.0	75.4	57.0	57.0	44.3	29.3		36.0	24.8	24.8
Actuated g/C Ratio	0.10	0.42	0.42	0.58	0.44	0.44	0.34	0.23		0.28	0.19	0.19
v/c Ratio	0.56	0.74	0.26	0.66	0.46	0.01	0.59	0.72		0.44	0.75	0.22
Control Delay	61.8	35.5	5.1	65.2	18.7	0.0	39.0	49.5		34.8	56.9	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	61.8	35.5	5.1	65.2	18.7	0.0	39.0	49.5		34.8	56.9	1.2
LOS	E	D	A	E	B	A	D	D		C	E	A
Approach Delay		35.0			25.7			47.1			46.1	
Approach LOS		C			C			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 18.2 (14%), Referenced to phase 2:EBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 36.3		Intersection LOS: D	
Intersection Capacity Utilization 81.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 5: Trafalgar Road & Dundas Street



Queues
5: Trafalgar Road & Dundas Street

Base
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	192	1587	201	174	949	8	161	558	99	492	94
v/c Ratio	0.56	0.74	0.26	0.66	0.46	0.01	0.59	0.72	0.44	0.75	0.22
Control Delay	61.8	35.5	5.1	65.2	18.7	0.0	39.0	49.5	34.8	56.9	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.8	35.5	5.1	65.2	18.7	0.0	39.0	49.5	34.8	56.9	1.2
Queue Length 50th (m)	25.8	132.0	0.8	36.2	32.0	0.0	31.1	70.1	18.4	66.8	0.0
Queue Length 95th (m)	37.7	#172.5	18.1	61.3	66.4	m0.0	45.7	85.1	29.8	81.7	0.0
Internal Link Dist (m)		530.9			391.5			307.2		385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		70.0		65.0
Base Capacity (vph)	447	2150	771	265	2065	662	284	1183	230	1065	582
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.74	0.26	0.66	0.46	0.01	0.57	0.47	0.43	0.46	0.16

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
5: Trafalgar Road & Dundas Street

Base
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	1555	197	171	930	8	158	434	113	97	482	92
Future Volume (veh/h)	188	1555	197	171	930	8	158	434	113	97	482	92
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1900	1827	1810	1792
Adj Flow Rate, veh/h	192	1587	201	174	949	8	161	443	115	99	492	94
Adj No. of Lanes	2	3	1	1	3	1	1	2	0	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	256	2455	762	235	2212	604	261	618	159	221	686	302
Arrive On Green	0.08	0.48	0.48	0.07	0.47	0.47	0.09	0.23	0.23	0.06	0.20	0.20
Sat Flow, veh/h	3408	5085	1579	1691	4715	1289	1740	2704	696	1740	3438	1512
Grp Volume(v), veh/h	192	1587	201	174	949	8	161	280	278	99	492	94
Grp Sat Flow(s),veh/h/ln	1704	1695	1579	1691	1572	1289	1740	1719	1681	1740	1719	1512
Q Serve(g_s), s	7.2	30.5	9.8	6.9	17.4	0.4	9.3	19.5	19.8	5.8	17.4	6.9
Cycle Q Clear(g_c), s	7.2	30.5	9.8	6.9	17.4	0.4	9.3	19.5	19.8	5.8	17.4	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	256	2455	762	235	2212	604	261	393	384	221	686	302
V/C Ratio(X)	0.75	0.65	0.26	0.74	0.43	0.01	0.62	0.71	0.72	0.45	0.72	0.31
Avail Cap(c_a), veh/h	448	2455	762	252	2212	604	299	602	588	239	1066	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.9	25.3	19.9	24.0	22.9	18.4	36.7	46.2	46.3	39.0	48.6	44.4
Incr Delay (d2), s/veh	5.3	1.3	0.8	11.0	0.4	0.0	3.4	2.9	3.1	1.7	1.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	14.6	4.4	3.9	7.6	0.2	4.7	9.6	9.5	2.9	8.4	2.9
LnGrp Delay(d),s/veh	64.2	26.6	20.8	34.9	23.3	18.5	40.2	49.1	49.4	40.8	50.3	45.1
LnGrp LOS	E	C	C	C	C	B	D	D	D	D	D	D
Approach Vol, veh/h		1980			1131			719			685	
Approach Delay, s/veh		29.7			25.1			47.2			48.2	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	69.2	15.4	32.4	14.8	67.4	11.6	36.2
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	10.3	44.3	14.2	40.3	17.1	36.5	9.0	45.5
Max Q Clear Time (g_c+I1), s	8.9	32.5	11.3	19.4	9.2	19.4	7.8	21.8
Green Ext Time (p_c), s	0.1	11.0	0.2	4.9	0.6	11.2	0.0	4.9

Intersection Summary	
HCM 2010 Ctrl Delay	34.1
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	1756	30	124	1000	52	54	33	141	64	72	92
Future Volume (vph)	34	1756	30	124	1000	52	54	33	141	64	72	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00		0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.916	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3141	0
Flt Permitted	0.257			0.059			0.641			0.734		
Satd. Flow (perm)	469	4940	1470	110	4673	1281	1164	1900	1577	1378	3141	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			70			55			140		98	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	36	1868	32	132	1064	55	57	35	150	68	77	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	36	1868	32	132	1064	55	57	35	150	68	175	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	2	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	26.8	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	70.2	70.2	70.2	13.0	83.2	83.2	46.8	46.8	46.8	46.8	46.8	
Total Split (%)	54.0%	54.0%	54.0%	10.0%	64.0%	64.0%	36.0%	36.0%	36.0%	36.0%	36.0%	
Maximum Green (s)	63.4	63.4	63.4	9.0	76.4	76.4	39.4	39.4	39.4	39.4	39.4	
Yellow Time (s)	4.2	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.6	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.8	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	24.0	24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	63.7	63.7	63.7	79.2	76.4	76.4	39.4	39.4	39.4	39.4	39.4	
Actuated g/C Ratio	0.49	0.49	0.49	0.61	0.59	0.59	0.30	0.30	0.30	0.30	0.30	
v/c Ratio	0.16	0.77	0.04	0.74	0.39	0.07	0.16	0.06	0.26	0.16	0.17	
Control Delay	15.1	16.9	1.1	48.3	14.8	3.1	34.8	32.7	7.6	34.6	15.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	15.1	16.9	1.1	48.3	14.8	3.1	34.8	32.7	7.6	34.6	15.3	
LOS	B	B	A	D	B	A	C	C	A	C	B	
Approach Delay		16.6			17.8			17.7			20.7	
Approach LOS		B			B			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 9.1 (7%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 17.4		Intersection LOS: B	
Intersection Capacity Utilization 104.9%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 6: Postridge Drive & Dundas Street

Queues
6: Postridge Drive & Dundas Street

Base
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	36	1868	32	132	1064	55	57	35	150	68	175
v/c Ratio	0.16	0.77	0.04	0.74	0.39	0.07	0.16	0.06	0.26	0.16	0.17
Control Delay	15.1	16.9	1.1	48.3	14.8	3.1	34.8	32.7	7.6	34.6	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.1	16.9	1.1	48.3	14.8	3.1	34.8	32.7	7.6	34.6	15.3
Queue Length 50th (m)	2.3	43.4	0.0	17.9	53.4	0.0	11.3	6.7	1.9	13.5	7.8
Queue Length 95th (m)	m5.6	79.4	m0.6	#48.6	63.3	5.7	22.8	15.1	18.0	25.9	17.0
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	229	2420	755	181	2746	775	352	575	575	417	1020
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.77	0.04	0.73	0.39	0.07	0.16	0.06	0.26	0.16	0.17

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
6: Postridge Drive & Dundas Street

Base
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	1756	30	124	1000	52	54	33	141	64	72	92
Future Volume (veh/h)	34	1756	30	124	1000	52	54	33	141	64	72	92
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1825	1900
Adj Flow Rate, veh/h	36	1868	32	132	1064	55	57	35	150	68	77	98
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	285	2487	750	198	2746	770	356	576	481	403	525	466
Arrive On Green	0.50	0.50	0.50	0.05	0.59	0.59	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	492	4940	1489	1774	4673	1310	1175	1900	1586	1198	1734	1539
Grp Volume(v), veh/h	36	1868	32	132	1064	55	57	35	150	68	77	98
Grp Sat Flow(s),veh/h/ln	492	1647	1489	1774	1558	1310	1175	1900	1586	1198	1734	1539
Q Serve(g_s), s	5.5	39.2	1.4	4.5	15.8	2.3	4.9	1.7	9.5	5.6	4.2	6.2
Cycle Q Clear(g_c), s	10.3	39.2	1.4	4.5	15.8	2.3	11.1	1.7	9.5	7.3	4.2	6.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	285	2487	750	198	2746	770	356	576	481	403	525	466
V/C Ratio(X)	0.13	0.75	0.04	0.67	0.39	0.07	0.16	0.06	0.31	0.17	0.15	0.21
Avail Cap(c_a), veh/h	285	2487	750	226	2746	770	356	576	481	403	525	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	25.8	16.4	25.6	14.3	11.5	37.8	32.2	34.9	34.7	33.0	33.7
Incr Delay (d2), s/veh	0.9	2.1	0.1	6.1	0.4	0.2	1.0	0.2	1.7	0.9	0.6	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	18.3	0.6	2.8	6.9	0.9	1.7	0.9	4.4	1.9	2.1	2.7
LnGrp Delay(d),s/veh	20.9	27.9	16.5	31.7	14.7	11.7	38.8	32.4	36.6	35.6	33.6	34.7
LnGrp LOS	C	C	B	C	B	B	D	C	D	D	C	C
Approach Vol, veh/h		1936			1251			242			243	
Approach Delay, s/veh		27.6			16.4			36.5			34.6	
Approach LOS		C			B			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	10.9	72.3		46.8		83.2		46.8
Change Period (Y+Rc), s	4.0	6.8		* 7.4		6.8		* 7.4
Max Green Setting (Gmax), s	9.0	63.4		* 39		76.4		* 39
Max Q Clear Time (g_c+I1), s	6.5	41.2		13.1		17.8		9.3
Green Ext Time (p_c), s	0.1	16.7		1.3		12.9		1.7

Intersection Summary

HCM 2010 Ctrl Delay	24.8
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	29	83	83	20	26	24
Future Volume (vph)	29	83	83	20	26	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.973		0.936	
Flt Protected		0.987			0.974	
Satd. Flow (prot)	0	1702	1737	0	1597	0
Flt Permitted		0.987			0.974	
Satd. Flow (perm)	0	1702	1737	0	1597	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		120.2	260.2		319.6	
Travel Time (s)		8.7	18.7		23.0	
Confl. Peds. (#/hr)					4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	25%	5%	8%	0%	8%	9%
Adj. Flow (vph)	33	94	94	23	30	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	127	117	0	57	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	29	83	83	20	26	24
Future Vol, veh/h	29	83	83	20	26	24
Conflicting Peds, #/hr	0	0	0	0	4	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	88	88	88	88	88	88
Heavy Vehicles, %	25	5	8	0	8	9
Mvmt Flow	33	94	94	23	30	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	117	0	-	0	270	106
Stage 1	-	-	-	-	106	-
Stage 2	-	-	-	-	164	-
Critical Hdwy	4.35	-	-	-	6.48	6.29
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.425	-	-	-	3.572	3.381
Pot Cap-1 Maneuver	1340	-	-	-	707	930
Stage 1	-	-	-	-	904	-
Stage 2	-	-	-	-	851	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1340	-	-	-	689	930
Mov Cap-2 Maneuver	-	-	-	-	689	-
Stage 1	-	-	-	-	880	-
Stage 2	-	-	-	-	851	-

Approach	EB	WB	SB
HCM Control Delay, s	2	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1340	-	-	-	787
HCM Lane V/C Ratio	0.025	-	-	-	0.072
HCM Control Delay (s)	7.8	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	121	146	75	45	1239	15	92	1176	14	124	775	462
Future Volume (vph)	121	146	75	45	1239	15	92	1176	14	124	775	462
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4848	1553	1687	5136	1429
Flt Permitted	0.100			0.656			0.304			0.153		
Satd. Flow (perm)	178	3610	1583	1246	3374	1553	578	4848	1553	272	5136	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			77			77			78			329
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	125	151	77	46	1277	15	95	1212	14	128	799	476
Shared Lane Traffic (%)												
Lane Group Flow (vph)	125	151	77	46	1277	15	95	1212	14	128	799	476
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lanes, Volumes, Timings
1: Trafalgar Road & William Halton Parkway

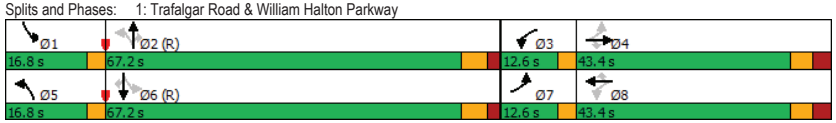
Base
PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	12.6	43.4	43.4	12.6	43.4	43.4	16.8	67.2	67.2	16.8	67.2	67.2
Total Split (%)	9.0%	31.0%	31.0%	9.0%	31.0%	31.0%	12.0%	48.0%	48.0%	12.0%	48.0%	48.0%
Maximum Green (s)	9.6	36.4	36.4	9.6	36.4	36.4	13.8	60.3	60.3	13.8	60.3	60.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	51.7	40.0	40.0	48.4	36.4	36.4	76.5	63.7	63.7	79.5	65.2	65.2
Actuated g/C Ratio	0.37	0.29	0.29	0.35	0.26	0.26	0.55	0.46	0.46	0.57	0.47	0.47
v/c Ratio	0.74	0.15	0.15	0.10	1.46	0.03	0.24	0.55	0.02	0.49	0.33	0.57
Control Delay	56.2	38.9	8.8	28.5	248.9	0.1	14.8	29.2	0.1	20.3	24.3	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.2	38.9	8.8	28.5	248.9	0.1	14.8	29.2	0.1	20.3	24.3	10.6
LOS	E	D	A	C	F	A	B	C	A	C	C	B
Approach Delay		38.4			238.6			27.8			19.3	
Approach LOS		D			F			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.46
Intersection Signal Delay: 89.8 Intersection LOS: F
Intersection Capacity Utilization 88.8% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 1: Trafalgar Road & William Halton Parkway



Queues
1: Trafalgar Road & William Halton Parkway

Base
PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	125	151	77	46	1277	15	95	1212	14	128	799	476
v/c Ratio	0.74	0.15	0.15	0.10	1.46	0.03	0.24	0.55	0.02	0.49	0.33	0.57
Control Delay	56.2	38.9	8.8	28.5	248.9	0.1	14.8	29.2	0.1	20.3	24.3	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.2	38.9	8.8	28.5	248.9	0.1	14.8	29.2	0.1	20.3	24.3	10.6
Queue Length 50th (m)	24.3	17.6	0.0	8.5	~266.7	0.0	11.8	92.3	0.0	16.3	52.8	27.1
Queue Length 95th (m)	#52.3	27.9	13.1	17.7	#311.6	0.0	20.4	112.0	0.0	26.7	65.8	63.4
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	169	1031	507	483	877	460	452	2207	749	296	2393	841
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.15	0.15	0.10	1.46	0.03	0.21	0.55	0.02	0.43	0.33	0.57

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	146	75	45	1239	15	92	1176	14	124	775	462
Future Volume (veh/h)	121	146	75	45	1239	15	92	1176	14	124	775	462
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	125	151	77	46	1277	15	95	1212	14	128	799	476
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	164	1028	451	424	877	404	310	2315	742	273	2479	690
Arrive On Green	0.07	0.28	0.28	0.04	0.26	0.26	0.05	0.48	0.48	0.05	0.48	0.48
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4848	1553	1691	5136	1429
Grp Volume(v), veh/h	125	151	77	46	1277	15	95	1212	14	128	799	476
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1616	1553	1691	1712	1429
Q Serve(g_s), s	7.4	4.4	5.1	2.6	36.4	1.0	3.7	24.4	0.7	5.4	13.3	36.2
Cycle Q Clear(g_c), s	7.4	4.4	5.1	2.6	36.4	1.0	3.7	24.4	0.7	5.4	13.3	36.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	1028	451	424	877	404	310	2315	742	273	2479	690
V/C Ratio(X)	0.76	0.15	0.17	0.11	1.46	0.04	0.31	0.52	0.02	0.47	0.32	0.69
Avail Cap(c_a), veh/h	167	1028	451	472	877	404	401	2315	742	349	2479	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	37.4	37.6	35.0	51.8	38.7	17.3	25.5	19.3	19.6	22.2	28.1
Incr Delay (d2), s/veh	18.2	0.1	0.4	0.1	211.5	0.1	0.6	0.9	0.0	1.2	0.3	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	2.2	2.3	1.3	42.7	0.4	1.9	11.1	0.3	2.6	6.4	15.4
LnGrp Delay(d),s/veh	56.3	37.5	38.0	35.1	263.3	38.8	17.9	26.3	19.3	20.9	22.5	33.7
LnGrp LOS	E	D	D	D	F	D	B	C	B	C	C	C
Approach Vol, veh/h		353			1338			1321			1403	
Approach Delay, s/veh		44.3			252.9			25.6			26.2	
Approach LOS		D			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	73.8	8.8	46.9	9.8	74.5	12.3	43.4
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	13.8	* 60	9.6	36.4	13.8	* 60	9.6	36.4
Max Q Clear Time (g_c+I1), s	7.4	26.4	4.6	7.1	5.7	38.2	9.4	38.4
Green Ext Time (p_c), s	0.2	21.0	0.0	2.7	0.2	14.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	96.2
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

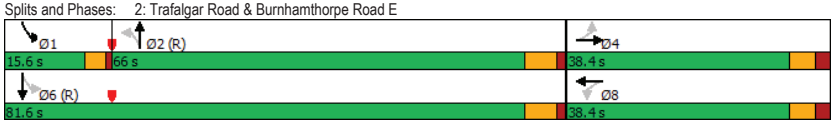
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	166	35	53	186	16	98	937	58	16	659	143
Future Volume (vph)	79	166	35	53	186	16	98	937	58	16	659	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.974			0.988			0.991			0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1802	0	1805	1811	0	1770	3327	0	1805	3279	0
Flt Permitted	0.366			0.371			0.323			0.212		
Satd. Flow (perm)	675	1802	0	705	1811	0	602	3327	0	403	3279	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			4			8			41	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	87	182	38	58	204	18	108	1030	64	18	724	157
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	220	0	58	222	0	108	1094	0	18	881	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		7.0	20.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		26.0	26.0		11.0	26.0	
Total Split (s)	38.4	38.4		38.4	38.4		66.0	66.0		15.6	81.6	
Total Split (%)	32.0%	32.0%		32.0%	32.0%		55.0%	55.0%		13.0%	68.0%	
Maximum Green (s)	32.4	32.4		32.4	32.4		60.0	60.0		11.6	75.6	
Yellow Time (s)	3.7	3.7		3.7	3.7		4.6	4.6		3.0	4.6	
All-Red Time (s)	2.3	2.3		2.3	2.3		1.4	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	19.8	19.8		19.8	19.8		83.8	83.8		90.2	88.2	
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.70	0.70		0.75	0.74	
v/c Ratio	0.78	0.72		0.50	0.74		0.26	0.47		0.05	0.36	
Control Delay	89.2	58.7		59.2	60.8		11.0	10.4		5.1	6.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	89.2	58.7		59.2	60.8		11.0	10.4		5.1	6.4	
LOS	F	E		E	E		B	B		A	A	
Approach Delay		67.3			60.5			10.4			6.4	
Approach LOS		E			E			B			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 20.8 Intersection LOS: C
Intersection Capacity Utilization 78.6% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	87	220	58	222	108	1094	18	881
v/c Ratio	0.78	0.72	0.50	0.74	0.26	0.47	0.05	0.36
Control Delay	89.2	58.7	59.2	60.8	11.0	10.4	5.1	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.2	58.7	59.2	60.8	11.0	10.4	5.1	6.4
Queue Length 50th (m)	20.9	50.2	13.2	52.0	7.6	48.7	1.0	34.2
Queue Length 95th (m)	#40.9	73.0	26.4	74.4	25.3	101.7	3.5	54.8
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	182	493	190	491	420	2326	438	2421
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.45	0.31	0.45	0.26	0.47	0.04	0.36

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	166	35	53	186	16	98	937	58	16	659	143
Future Volume (veh/h)	79	166	35	53	186	16	98	937	58	16	659	143
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1850	1900	1900	1833	1900	1863	1767	1900	1900	1774	1900
Adj Flow Rate, veh/h	87	182	38	58	204	18	108	1030	64	18	724	157
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	175	313	65	179	350	31	423	2021	126	346	1899	412
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.63	0.63	0.63	0.03	0.69	0.69
Sat Flow, veh/h	1143	1485	310	1179	1660	146	627	3211	199	1810	2756	597
Grp Volume(v), veh/h	87	0	220	58	0	222	108	538	556	18	443	438
Grp Sat Flow(s),veh/h/ln	1143	0	1795	1179	0	1807	627	1679	1732	1810	1685	1668
Q Serve(g_s), s	8.9	0.0	13.2	5.6	0.0	13.3	10.5	21.0	21.0	0.4	13.3	13.3
Cycle Q Clear(g_c), s	22.2	0.0	13.2	18.8	0.0	13.3	16.7	21.0	21.0	0.4	13.3	13.3
Prop In Lane	1.00		0.17	1.00		0.08	1.00		0.12	1.00		0.36
Lane Grp Cap(c), veh/h	175	0	379	179	0	381	423	1056	1090	346	1161	1150
V/C Ratio(X)	0.50	0.00	0.58	0.32	0.00	0.58	0.26	0.51	0.51	0.05	0.38	0.38
Avail Cap(c_a), veh/h	242	0	485	249	0	488	423	1056	1090	473	1161	1150
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.6	0.0	42.6	51.0	0.0	42.6	12.9	12.1	12.1	8.8	7.9	7.9
Incr Delay (d2), s/veh	2.2	0.0	1.4	1.0	0.0	1.4	1.5	1.8	1.7	0.1	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	6.7	1.9	0.0	6.7	2.0	10.2	10.5	0.2	6.5	6.4
LnGrp Delay(d),s/veh	54.7	0.0	44.0	52.1	0.0	44.0	14.3	13.9	13.8	8.9	8.8	8.8
LnGrp LOS	D		D	D		D	B	B	B	A	A	A
Approach Vol, veh/h		307			280			1202			899	
Approach Delay, s/veh		47.0			45.7			13.9			8.8	
Approach LOS		D			D			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	7.2	81.5		31.3		88.7		31.3
Change Period (Y+Rc), s	4.0	* 6		6.0		* 6		6.0
Max Green Setting (Gmax), s	11.6	* 60		32.4		* 76		32.4
Max Q Clear Time (g_c+I1), s	2.4	23.0		24.2		15.3		20.8
Green Ext Time (p_c), s	0.0	22.1		1.2		17.9		1.3

Intersection Summary

HCM 2010 Ctrl Delay		19.3	
HCM 2010 LOS		B	

Notes

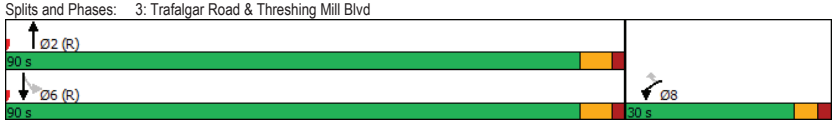
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	23	186	909	24	47	702
Future Volume (vph)	23	186	909	24	47	702
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.996			
Flt Protected	0.950					0.997
Satd. Flow (prot)	1410	1553	3354	0	0	3362
Flt Permitted	0.950					0.815
Satd. Flow (perm)	1410	1553	3354	0	0	2748
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		183	5			
Link Speed (k/h)	50		80			80
Link Distance (m)	120.2		286.4			537.5
Travel Time (s)	8.7		12.9			24.2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	28%	4%	7%	15%	8%	7%
Adj. Flow (vph)	24	194	947	25	49	731
Shared Lane Traffic (%)						
Lane Group Flow (vph)	24	194	972	0	0	780
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15		15	25	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (m)	2.0	2.0	10.0		2.0	10.0
Trailing Detector (m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Size(m)	2.0	2.0	0.6		2.0	0.6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(m)			9.4			9.4
Detector 2 Size(m)			0.6			0.6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	10.0	10.0	20.0		20.0	20.0
Minimum Split (s)	15.5	15.5	41.6		41.6	41.6
Total Split (s)	30.0	30.0	90.0		90.0	90.0
Total Split (%)	25.0%	25.0%	75.0%		75.0%	75.0%
Maximum Green (s)	24.5	24.5	83.4		83.4	83.4
Yellow Time (s)	3.3	3.3	4.6		4.6	4.6
All-Red Time (s)	2.2	2.2	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.5	5.5	6.6			6.6
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	5.0		5.0	5.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)			7.0		7.0	7.0
Flash Dont Walk (s)			28.0		28.0	28.0
Pedestrian Calls (#/hr)			0		0	0
Act Effct Green (s)	11.0	11.0	96.9			96.9
Actuated g/C Ratio	0.09	0.09	0.81			0.81
v/c Ratio	0.19	0.63	0.36			0.35
Control Delay	53.2	18.4	1.7			3.7
Queue Delay	0.0	0.0	0.0			0.0
Total Delay	53.2	18.4	1.7			3.7
LOS	D	B	A			A
Approach Delay	22.2		1.7			3.7
Approach LOS	C		A			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 20.4 (17%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 4.8		Intersection LOS: A	
Intersection Capacity Utilization 70.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Trafalgar Road & Threshing Mill Blvd



Lane Group	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	24	194	972	780
v/c Ratio	0.19	0.63	0.36	0.35
Control Delay	53.2	18.4	1.7	3.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	53.2	18.4	1.7	3.7
Queue Length 50th (m)	5.7	2.6	7.8	20.5
Queue Length 95th (m)	14.1	25.2	15.2	34.2
Internal Link Dist (m)	96.2		262.4	513.5
Turn Bay Length (m)				
Base Capacity (vph)	287	462	2710	2219
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	0.08	0.42	0.36	0.35

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	23	186	909	24	47	702
Future Volume (veh/h)	23	186	909	24	47	702
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1484	1827	1772	1900	1900	1775
Adj Flow Rate, veh/h	24	194	947	25	49	731
Adj No. of Lanes	1	1	2	0	0	2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	28	4	7	15	8	7
Cap, veh/h	203	223	2532	67	148	2130
Arrive On Green	0.14	0.14	1.00	1.00	0.76	0.76
Sat Flow, veh/h	1414	1553	3440	88	152	2900
Grp Volume(v), veh/h	24	194	476	496	379	401
Grp Sat Flow(s),veh/h/ln	1414	1553	1684	1757	1436	1534
Q Serve(g_s), s	1.8	14.7	0.0	0.0	0.0	10.4
Cycle Q Clear(g_c), s	1.8	14.7	0.0	0.0	8.0	10.4
Prop In Lane	1.00	1.00		0.05	0.13	
Lane Grp Cap(c), veh/h	203	223	1272	1327	1119	1159
V/C Ratio(X)	0.12	0.87	0.37	0.37	0.34	0.35
Avail Cap(c_a), veh/h	289	317	1272	1327	1119	1159
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.94	0.94	1.00	1.00
Uniform Delay (d), s/veh	44.8	50.3	0.0	0.0	4.6	4.9
Incr Delay (d2), s/veh	0.3	16.4	0.8	0.8	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	7.3	0.3	0.3	4.2	4.6
LnGrp Delay(d),s/veh	45.0	66.7	0.8	0.8	5.4	5.7
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	218		972			780
Approach Delay, s/veh	64.3		0.8			5.5
Approach LOS	E		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		97.3				97.3		22.7
Change Period (Y+Rc), s		6.6				6.6		5.5
Max Green Setting (Gmax), s		83.4				83.4		24.5
Max Q Clear Time (g_c+I1), s		2.0				12.4		16.7
Green Ext Time (p_c), s		21.9				16.1		0.6

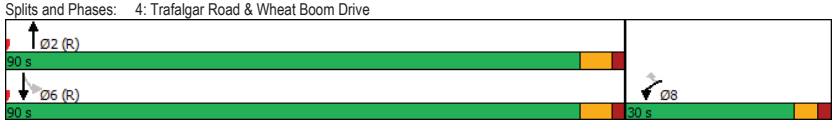
Intersection Summary	
HCM 2010 Ctrl Delay	9.7
HCM 2010 LOS	A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	45	94	833	32	27	733
Future Volume (vph)	45	94	833	32	27	733
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt		0.850	0.995			
Flt Protected	0.950					0.998
Satd. Flow (prot)	1327	1252	3397	0	0	3357
Flt Permitted	0.950					0.889
Satd. Flow (perm)	1327	1252	3397	0	0	2990
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		101	7			
Link Speed (k/h)	50		60			80
Link Distance (m)	342.3		409.5			286.4
Travel Time (s)	24.6		24.6			12.9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	36%	29%	5%	25%	16%	7%
Adj. Flow (vph)	48	101	896	34	29	788
Shared Lane Traffic (%)						
Lane Group Flow (vph)	48	101	930	0	0	817
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.6		3.6			3.6
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15		15	25	
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (m)	2.0	2.0	10.0		2.0	10.0
Trailing Detector (m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0		0.0	0.0
Detector 1 Size(m)	2.0	2.0	0.6		2.0	0.6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(m)			9.4			9.4
Detector 2 Size(m)			0.6			0.6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Detector Phase	8	8	2		6	6
Switch Phase						

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	10.0	10.0	20.0		20.0	20.0
Minimum Split (s)	15.5	15.5	26.6		26.6	26.6
Total Split (s)	30.0	30.0	90.0		90.0	90.0
Total Split (%)	25.0%	25.0%	75.0%		75.0%	75.0%
Maximum Green (s)	24.5	24.5	83.4		83.4	83.4
Yellow Time (s)	3.3	3.3	4.6		4.6	4.6
All-Red Time (s)	2.2	2.2	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	5.5	5.5	6.6			6.6
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	C-Max		C-Max	C-Max
Walk Time (s)			7.0			
Flash Dont Walk (s)			28.0			
Pedestrian Calls (#/hr)			0			
Act Effct Green (s)	11.1	11.1	96.8			96.8
Actuated g/C Ratio	0.09	0.09	0.81			0.81
v/c Ratio	0.39	0.49	0.34			0.34
Control Delay	60.4	17.9	3.5			3.1
Queue Delay	0.0	0.0	0.0			0.0
Total Delay	60.4	17.9	3.5			3.1
LOS	E	B	A			A
Approach Delay	31.6		3.5			3.1
Approach LOS	C		A			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 13.2 (11%), Referenced to phase 2:NBT and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 5.5		Intersection LOS: A	
Intersection Capacity Utilization 58.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	48	101	930	817
v/c Ratio	0.39	0.49	0.34	0.34
Control Delay	60.4	17.9	3.5	3.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	60.4	17.9	3.5	3.1
Queue Length 50th (m)	11.5	0.0	23.9	18.7
Queue Length 95th (m)	23.8	17.0	37.4	22.6
Internal Link Dist (m)	318.3		385.5	262.4
Turn Bay Length (m)				
Base Capacity (vph)	270	335	2740	2411
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	0.18	0.30	0.34	0.34

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	45	94	833	32	27	733
Future Volume (veh/h)	45	94	833	32	27	733
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1397	1473	1797	1900	1900	1770
Adj Flow Rate, veh/h	48	101	896	34	29	788
Adj No. of Lanes	1	1	2	0	0	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	36	29	5	25	16	7
Cap, veh/h	132	124	2683	102	94	2447
Arrive On Green	0.10	0.10	0.80	0.80	1.00	1.00
Sat Flow, veh/h	1331	1252	3444	127	78	3139
Grp Volume(v), veh/h	48	101	456	474	419	398
Grp Sat Flow(s),veh/h/ln	1331	1252	1707	1775	1606	1531
Q Serve(g_s), s	4.0	9.5	8.8	8.8	0.0	0.0
Cycle Q Clear(g_c), s	4.0	9.5	8.8	8.8	0.0	0.0
Prop In Lane	1.00	1.00		0.07	0.07	
Lane Grp Cap(c), veh/h	132	124	1365	1419	1317	1224
V/C Ratio(X)	0.36	0.81	0.33	0.33	0.32	0.32
Avail Cap(c_a), veh/h	272	256	1365	1419	1317	1224
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.95	0.95
Uniform Delay (d), s/veh	50.5	52.9	3.3	3.3	0.0	0.0
Incr Delay (d2), s/veh	1.7	11.9	0.7	0.6	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	3.7	4.3	4.5	0.2	0.2
LnGrp Delay(d),s/veh	52.2	64.8	3.9	3.9	0.6	0.7
LnGrp LOS	D	E	A	A	A	A
Approach Vol, veh/h	149		930			817
Approach Delay, s/veh	60.7		3.9			0.6
Approach LOS	E		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		102.6				102.6		17.4
Change Period (Y+Rc), s		6.6				6.6		5.5
Max Green Setting (Gmax), s		83.4				83.4		24.5
Max Q Clear Time (g_c+I1), s		10.8				2.0		11.5
Green Ext Time (p_c), s		9.2				8.0		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	7.0
HCM 2010 LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	215	1370	207	208	1799	11	253	620	224	118	429	209
Future Volume (vph)	215	1370	207	208	1799	11	253	620	224	118	429	209
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		0.0	70.0		65.0
Storage Lanes	2		1	1		1	1		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor			0.98	1.00			1.00					0.98
Frt			0.850			0.850		0.960				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	3301	0	1736	3438	1524
Flt Permitted	0.950			0.087			0.393			0.115		
Satd. Flow (perm)	3400	5085	1557	154	4715	1292	716	3301	0	210	3438	1497
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			211			105		41				213
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	219	1398	211	212	1836	11	258	633	229	120	438	213
Shared Lane Traffic (%)												
Lane Group Flow (vph)	219	1398	211	212	1836	11	258	862	0	120	438	213
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lanes, Volumes, Timings
5: Trafalgar Road & Dundas Street

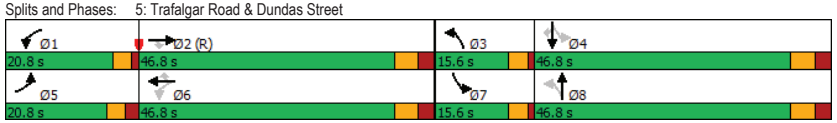
Base
PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8			4		4
Detector Phase	5	2	2	1	6	6	3	8		7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0		7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5		11.0	16.5	16.5
Total Split (s)	20.8	46.8	46.8	20.8	46.8	46.8	15.6	46.8		15.6	46.8	46.8
Total Split (%)	16.0%	36.0%	36.0%	16.0%	36.0%	36.0%	12.0%	36.0%		12.0%	36.0%	36.0%
Maximum Green (s)	15.8	40.4	40.4	16.8	40.4	40.4	11.6	40.3		11.6	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7		3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8		1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5		4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5		3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None		None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0			27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0			0	0
Act Effct Green (s)	13.7	45.3	45.3	63.8	46.0	46.0	51.6	37.5		50.2	36.8	36.8
Actuated g/C Ratio	0.11	0.35	0.35	0.49	0.35	0.35	0.40	0.29		0.39	0.28	0.28
v/c Ratio	0.61	0.79	0.31	0.82	1.10	0.02	0.69	0.88		0.57	0.45	0.37
Control Delay	63.0	43.1	5.5	72.6	83.6	0.0	36.6	52.8		34.0	39.3	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	63.0	43.1	5.5	72.6	83.6	0.0	36.6	52.8		34.0	39.3	6.1
LOS	E	D	A	E	F	A	D	D		C	D	A
Approach Delay		41.1			82.0			49.1			29.3	
Approach LOS		D			F			D			C	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 40.3 (31%), Referenced to phase 2:EBT, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.10
Intersection Signal Delay: 55.7 — Intersection LOS: E
Intersection Capacity Utilization 90.0% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 5: Trafalgar Road & Dundas Street



Queues
5: Trafalgar Road & Dundas Street

Base
PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	219	1398	211	212	1836	11	258	862	120	438	213
v/c Ratio	0.61	0.79	0.31	0.82	1.10	0.02	0.69	0.88	0.57	0.45	0.37
Control Delay	63.0	43.1	5.5	72.6	83.6	0.0	36.6	52.8	34.0	39.3	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.0	43.1	5.5	72.6	83.6	0.0	36.6	52.8	34.0	39.3	6.1
Queue Length 50th (m)	29.4	131.2	0.0	47.5	~211.3	0.0	44.8	109.4	19.0	49.6	0.0
Queue Length 95th (m)	42.5	151.7	18.2	m60.3	#253.4	m0.0	65.6	135.1	32.1	65.1	18.3
Internal Link Dist (m)		530.9			391.5			307.2		385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		70.0		65.0
Base Capacity (vph)	413	1770	679	277	1666	524	375	1051	218	1065	611
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.79	0.31	0.77	1.10	0.02	0.69	0.82	0.55	0.41	0.35

Intersection Summary

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	215	1370	207	208	1799	11	253	620	224	118	429	209
Future Volume (veh/h)	215	1370	207	208	1799	11	253	620	224	118	429	209
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1900	1827	1810	1792
Adj Flow Rate, veh/h	219	1398	211	212	1836	11	258	633	229	120	438	213
Adj No. of Lanes	2	3	1	1	3	1	1	2	0	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	281	2002	621	261	1867	510	330	712	257	195	907	400
Arrive On Green	0.08	0.39	0.39	0.09	0.40	0.40	0.09	0.29	0.29	0.07	0.26	0.26
Sat Flow, veh/h	3408	5085	1579	1691	4715	1288	1740	2472	894	1740	3438	1515
Grp Volume(v), veh/h	219	1398	211	212	1836	11	258	440	422	120	438	213
Grp Sat Flow(s),veh/h/ln	1704	1695	1579	1691	1572	1288	1740	1719	1646	1740	1719	1515
Q Serve(g_s), s	8.2	29.9	12.2	9.6	50.1	0.7	11.6	31.9	31.9	6.5	14.0	15.7
Cycle Q Clear(g_c), s	8.2	29.9	12.2	9.6	50.1	0.7	11.6	31.9	31.9	6.5	14.0	15.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.54	1.00		1.00
Lane Grp Cap(c), veh/h	281	2002	621	261	1867	510	330	495	474	195	907	400
V/C Ratio(X)	0.78	0.70	0.34	0.81	0.98	0.02	0.78	0.89	0.89	0.61	0.48	0.53
Avail Cap(c_a), veh/h	414	2002	621	323	1867	510	330	533	510	237	1066	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.5	33.0	27.6	27.2	38.8	23.9	35.6	44.3	44.3	35.3	40.4	41.0
Incr Delay (d2), s/veh	6.4	2.1	1.5	12.8	17.1	0.0	11.9	16.3	17.0	3.9	0.5	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	14.4	5.5	5.3	24.7	0.2	7.8	17.4	16.8	3.3	6.7	6.7
LnGrp Delay(d),s/veh	64.9	35.0	29.1	40.1	56.0	24.0	47.5	60.6	61.3	39.2	40.8	42.3
LnGrp LOS	E	D	C	D	E	C	D	E	E	D	D	D
Approach Vol, veh/h		1828			2059			1120			771	
Approach Delay, s/veh		37.9			54.2			57.9			41.0	
Approach LOS		D			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	57.6	15.6	40.8	15.7	57.9	12.5	43.9
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	16.8	40.4	11.6	40.3	15.8	40.4	11.6	40.3
Max Q Clear Time (g_c+I1), s	11.6	31.9	13.6	17.7	10.2	52.1	8.5	33.9
Green Ext Time (p_c), s	0.5	7.8	0.0	5.4	0.5	0.0	0.1	3.5

Intersection Summary	
HCM 2010 Ctrl Delay	48.0
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	1386	58	250	1910	71	108	77	131	66	53	43
Future Volume (vph)	63	1386	58	250	1910	71	108	77	131	66	53	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00		0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.932	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3209	0
Flt Permitted	0.074			0.081			0.688			0.704		
Satd. Flow (perm)	135	4940	1470	151	4673	1281	1248	1900	1577	1322	3209	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			104			70			139		46	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	67	1474	62	266	2032	76	115	82	139	70	56	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	1474	62	266	2032	76	115	82	139	70	102	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	11.0	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	11.7	57.2	57.2	26.0	71.5	71.5	46.8	46.8	46.8	46.8	46.8	
Total Split (%)	9.0%	44.0%	44.0%	20.0%	55.0%	55.0%	36.0%	36.0%	36.0%	36.0%	36.0%	
Maximum Green (s)	7.7	50.4	50.4	22.0	64.7	64.7	39.4	39.4	39.4	39.4	39.4	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)		24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	64.1	54.0	54.0	79.2	67.2	67.2	39.4	39.4	39.4	39.4	39.4	
Actuated g/C Ratio	0.49	0.42	0.42	0.61	0.52	0.52	0.30	0.30	0.30	0.30	0.30	
v/c Ratio	0.43	0.72	0.09	0.83	0.84	0.11	0.30	0.14	0.24	0.17	0.10	
Control Delay	32.4	25.7	3.2	51.4	31.6	4.9	37.5	33.9	6.4	34.9	18.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	32.4	25.7	3.2	51.4	31.6	4.9	37.5	33.9	6.4	34.9	18.8	
LOS	C	C	A	D	C	A	D	C	A	C	B	
Approach Delay		25.1			32.9			23.8			25.3	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 36.4 (28%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 29.2		Intersection LOS: C	
Intersection Capacity Utilization 90.4%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 6: Postridge Drive & Dundas Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	67	1474	62	266	2032	76	115	82	139	70	102
v/c Ratio	0.43	0.72	0.09	0.83	0.84	0.11	0.30	0.14	0.24	0.17	0.10
Control Delay	32.4	25.7	3.2	51.4	31.6	4.9	37.5	33.9	6.4	34.9	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.4	25.7	3.2	51.4	31.6	4.9	37.5	33.9	6.4	34.9	18.8
Queue Length 50th (m)	9.1	67.9	0.5	49.0	172.9	0.8	23.8	16.1	0.0	13.9	5.6
Queue Length 95th (m)	m14.2	86.1	m2.3	#80.4	197.4	9.2	41.4	29.3	15.4	26.7	12.7
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	161	2050	670	365	2416	696	378	575	574	400	1004
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.72	0.09	0.73	0.84	0.11	0.30	0.14	0.24	0.17	0.10

Intersection Summary
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	1386	58	250	1910	71	108	77	131	66	53	43
Future Volume (veh/h)	63	1386	58	250	1910	71	108	77	131	66	53	43
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1829	1900
Adj Flow Rate, veh/h	67	1474	62	266	2032	76	115	82	139	70	56	46
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	165	2272	685	305	2373	665	406	576	481	371	577	425
Arrive On Green	0.05	0.46	0.46	0.10	0.51	0.51	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1740	4940	1489	1774	4673	1310	1254	1900	1586	1160	1904	1401
Grp Volume(v), veh/h	67	1474	62	266	2032	76	115	82	139	70	51	51
Grp Sat Flow(s),veh/h/ln	1740	1647	1489	1774	1558	1310	1254	1900	1586	1160	1737	1568
Q Serve(g_s), s	2.6	29.9	3.1	9.8	49.2	3.9	9.5	4.1	8.7	6.1	2.7	3.1
Cycle Q Clear(g_c), s	2.6	29.9	3.1	9.8	49.2	3.9	12.5	4.1	8.7	10.2	2.7	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.89
Lane Grp Cap(c), veh/h	165	2272	685	305	2373	665	406	576	481	371	527	475
V/C Ratio(X)	0.41	0.65	0.09	0.87	0.86	0.11	0.28	0.14	0.29	0.19	0.10	0.11
Avail Cap(c_a), veh/h	183	2272	685	433	2373	665	406	576	481	371	527	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.0	27.0	19.8	24.3	27.9	16.7	37.2	33.0	34.6	36.7	32.5	32.6
Incr Delay (d2), s/veh	1.6	1.4	0.3	13.0	4.2	0.3	1.7	0.5	1.5	1.1	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	13.8	1.3	5.9	22.0	1.5	3.5	2.2	4.0	2.1	1.4	1.4
LnGrp Delay(d),s/veh	28.6	28.5	20.0	37.3	32.1	17.1	38.9	33.5	36.1	37.8	32.9	33.1
LnGrp LOS	C	C	C	D	C	B	D	C	D	D	C	C
Approach Vol, veh/h		1603			2374			336			172	
Approach Delay, s/veh		28.1			32.2			36.4			35.0	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.6	66.6		46.8	10.4	72.8		46.8
Change Period (Y+Rc), s	4.0	6.8		* 7.4	4.0	6.8		* 7.4
Max Green Setting (Gmax), s	22.0	50.4		* 39	7.7	64.7		* 39
Max Q Clear Time (g_c+I1), s	11.8	31.9		14.5	4.6	51.2		12.2
Green Ext Time (p_c), s	0.8	11.8		1.8	0.0	11.6		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	31.2
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	20	85	179	21	37	67
Future Volume (vph)	20	85	179	21	37	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.986		0.913	
Flt Protected		0.991			0.983	
Satd. Flow (prot)	0	1730	1748	0	1570	0
Flt Permitted		0.991			0.983	
Satd. Flow (perm)	0	1730	1748	0	1570	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		120.2	260.2		319.6	
Travel Time (s)		8.7	18.7		23.0	
Confl. Peds. (#/hr)					4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	25%	5%	8%	0%	8%	9%
Adj. Flow (vph)	23	97	203	24	42	76
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	120	227	0	118	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.4%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	85	179	21	37	67
Future Vol, veh/h	20	85	179	21	37	67
Conflicting Peds, #/hr	0	0	0	0	4	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	88	88	88	88	88	88
Heavy Vehicles, %	25	5	8	0	8	9
Mvmt Flow	23	97	203	24	42	76

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	227	0	-	0	362	215
Stage 1	-	-	-	-	215	-
Stage 2	-	-	-	-	147	-
Critical Hdwy	4.35	-	-	-	6.48	6.29
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.425	-	-	-	3.572	3.381
Pot Cap-1 Maneuver	1217	-	-	-	625	808
Stage 1	-	-	-	-	807	-
Stage 2	-	-	-	-	866	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1217	-	-	-	613	808
Mov Cap-2 Maneuver	-	-	-	-	613	-
Stage 1	-	-	-	-	791	-
Stage 2	-	-	-	-	866	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1217	-	-	-	726
HCM Lane V/C Ratio	0.019	-	-	-	0.163
HCM Control Delay (s)	8	0	-	-	10.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

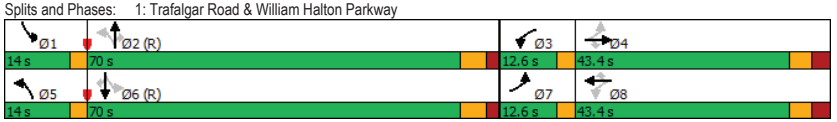
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	427	182	32	823	25	103	851	33	193	650	126
Future Volume (vph)	193	427	182	32	823	25	103	851	33	193	650	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4262	1553	1687	4515	1429
Flt Permitted	0.099			0.462			0.320			0.212		
Satd. Flow (perm)	176	3610	1583	878	3374	1553	608	4262	1553	376	4515	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			188			77			78			130
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	199	440	188	33	848	26	106	877	34	199	670	130
Shared Lane Traffic (%)												
Lane Group Flow (vph)	199	440	188	33	848	26	106	877	34	199	670	130
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	12.6	43.4	43.4	12.6	43.4	43.4	14.0	70.0	70.0	14.0	70.0	70.0
Total Split (%)	9.0%	31.0%	31.0%	9.0%	31.0%	31.0%	10.0%	50.0%	50.0%	10.0%	50.0%	50.0%
Maximum Green (s)	9.6	36.4	36.4	9.6	36.4	36.4	11.0	63.1	63.1	11.0	63.1	63.1
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	52.2	42.4	42.4	48.0	36.4	36.4	76.4	63.4	63.4	79.6	65.0	65.0
Actuated g/C Ratio	0.37	0.30	0.30	0.34	0.26	0.26	0.55	0.45	0.45	0.57	0.46	0.46
v/c Ratio	1.18	0.40	0.31	0.09	0.97	0.06	0.26	0.45	0.05	0.64	0.32	0.18
Control Delay	156.7	41.1	6.6	28.4	74.4	0.2	15.0	27.4	0.1	24.1	24.3	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	156.7	41.1	6.6	28.4	74.4	0.2	15.0	27.4	0.1	24.1	24.3	4.0
LOS	F	D	A	C	E	A	B	C	A	C	C	A
Approach Delay		61.1			70.6			25.2			21.6	
Approach LOS		E			E			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.18			
Intersection Signal Delay: 43.1		Intersection LOS: D	
Intersection Capacity Utilization 79.1%		ICU Level of Service D	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 1: Trafalgar Road & William Halton Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	199	440	188	33	848	26	106	877	34	199	670	130
v/c Ratio	1.18	0.40	0.31	0.09	0.97	0.06	0.26	0.45	0.05	0.64	0.32	0.18
Control Delay	156.7	41.1	6.6	28.4	74.4	0.2	15.0	27.4	0.1	24.1	24.3	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	156.7	41.1	6.6	28.4	74.4	0.2	15.0	27.4	0.1	24.1	24.3	4.0
Queue Length 50th (m)	~52.5	55.7	0.0	6.1	129.2	0.0	13.3	72.5	0.0	26.6	50.2	0.0
Queue Length 95th (m)	#106.8	74.2	19.1	13.7	#172.9	0.0	22.6	87.2	0.0	40.5	63.5	12.1
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	169	1094	610	377	877	460	433	1930	745	317	2096	733
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.18	0.40	0.31	0.09	0.97	0.06	0.24	0.45	0.05	0.63	0.32	0.18

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	427	182	32	823	25	103	851	33	193	650	126
Future Volume (veh/h)	193	427	182	32	823	25	103	851	33	193	650	126
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	199	440	188	33	848	26	106	877	34	199	670	130
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	174	1056	463	274	877	404	409	1934	705	361	2168	686
Arrive On Green	0.07	0.29	0.29	0.04	0.26	0.26	0.05	0.45	0.45	0.08	0.48	0.48
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4262	1553	1691	4515	1429
Grp Volume(v), veh/h	199	440	188	33	848	26	106	877	34	199	670	130
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1421	1553	1691	1505	1429
Q Serve(g_s), s	9.6	13.7	13.3	1.8	34.8	1.8	4.3	19.8	1.7	8.5	12.7	7.3
Cycle Q Clear(g_c), s	9.6	13.7	13.3	1.8	34.8	1.8	4.3	19.8	1.7	8.5	12.7	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	1056	463	274	877	404	409	1934	705	361	2168	686
V/C Ratio(X)	1.14	0.42	0.41	0.12	0.97	0.06	0.26	0.45	0.05	0.55	0.31	0.19
Avail Cap(c_a), veh/h	174	1056	463	333	877	404	463	1934	705	366	2168	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	39.9	39.8	35.6	51.2	39.0	18.7	26.3	21.3	19.1	22.2	20.8
Incr Delay (d2), s/veh	111.3	0.6	1.2	0.2	22.8	0.1	0.3	0.8	0.1	1.7	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	6.9	6.0	0.9	19.0	0.8	2.2	7.9	0.8	4.1	5.3	3.0
LnGrp Delay(d),s/veh	152.5	40.5	41.0	35.8	74.0	39.1	19.0	27.1	21.5	20.8	22.6	21.4
LnGrp LOS	F	D	D	D	E	D	B	C	C	C	C	C
Approach Vol, veh/h		827			907			1017			999	
Approach Delay, s/veh		67.5			71.6			26.0			22.1	
Approach LOS		E			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	70.4	8.1	47.9	9.9	74.1	12.6	43.4
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	11.0	* 63	9.6	36.4	11.0	* 63	9.6	36.4
Max Q Clear Time (g_c+I1), s	10.5	21.8	3.8	15.7	6.3	14.7	11.6	36.8
Green Ext Time (p_c), s	0.0	16.5	0.0	7.3	0.1	14.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	45.2
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

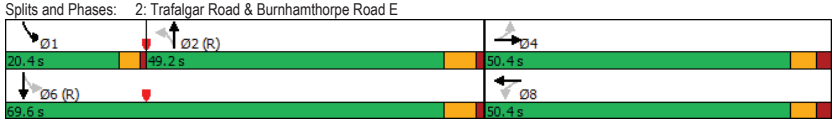
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	124	197	57	41	123	32	59	697	63	48	681	77
Future Volume (vph)	124	197	57	41	123	32	59	697	63	48	681	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.80	*0.80	1.00	*0.80	*0.80
Frt		0.966			0.969			0.988			0.985	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1784	0	1805	1784	0	1770	4197	0	1805	4179	0
Flt Permitted	0.538			0.297			0.290			0.256		
Satd. Flow (perm)	992	1784	0	564	1784	0	540	4197	0	486	4179	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			12			12			21	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	136	216	63	45	135	35	65	766	69	53	748	85
Shared Lane Traffic (%)												
Lane Group Flow (vph)	136	279	0	45	170	0	65	835	0	53	833	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		7.0	20.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		26.0	26.0		11.0	26.0	
Total Split (s)	50.4	50.4		50.4	50.4		49.2	49.2		20.4	69.6	
Total Split (%)	42.0%	42.0%		42.0%	42.0%		41.0%	41.0%		17.0%	58.0%	
Maximum Green (s)	44.4	44.4		44.4	44.4		43.2	43.2		16.4	63.6	
Yellow Time (s)	3.7	3.7		3.7	3.7		4.6	4.6		3.0	4.6	
All-Red Time (s)	2.3	2.3		2.3	2.3		1.4	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	23.6	23.6		23.6	23.6		75.4	75.4		86.4	84.4	
Actuated g/C Ratio	0.20	0.20		0.20	0.20		0.63	0.63		0.72	0.70	
v/c Ratio	0.70	0.77		0.41	0.47		0.19	0.32		0.12	0.28	
Control Delay	62.6	56.9		51.2	42.6		11.9	9.8		6.7	7.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	62.6	56.9		51.2	42.6		11.9	9.8		6.7	7.3	
LOS	E	E		D	D		B	A		A	A	
Approach Delay		58.8			44.4			10.0			7.3	
Approach LOS		E			D			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 20.4		Intersection LOS: C	
Intersection Capacity Utilization 75.5%		ICU Level of Service D	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	136	279	45	170	65	835	53	833
v/c Ratio	0.70	0.77	0.41	0.47	0.19	0.32	0.12	0.28
Control Delay	62.6	56.9	51.2	42.6	11.9	9.8	6.7	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.6	56.9	51.2	42.6	11.9	9.8	6.7	7.3
Queue Length 50th (m)	31.7	62.9	9.8	34.9	7.0	39.8	3.4	27.6
Queue Length 95th (m)	50.7	86.5	20.9	52.4	18.3	60.5	9.1	44.0
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	367	668	208	667	339	2639	529	2944
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.42	0.22	0.25	0.19	0.32	0.10	0.28

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	197	57	41	123	32	59	697	63	48	681	77
Future Volume (veh/h)	124	197	57	41	123	32	59	697	63	48	681	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1846	1900	1900	1842	1900	1863	1770	1900	1900	1768	1900
Adj Flow Rate, veh/h	136	216	63	45	135	35	65	766	69	53	748	85
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	236	314	92	155	323	84	447	2455	220	542	2723	308
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	1.00	1.00	1.00	0.05	0.67	0.67
Sat Flow, veh/h	1198	1375	401	1118	1411	366	656	4163	373	1810	4057	458
Grp Volume(v), veh/h	136	0	279	45	0	170	65	520	315	53	520	313
Grp Sat Flow(s),veh/h/ln	1198	0	1776	1118	0	1777	656	1416	1704	1810	1414	1687
Q Serve(g_s), s	13.1	0.0	17.3	4.6	0.0	9.8	0.0	0.0	0.0	1.3	8.9	9.0
Cycle Q Clear(g_c), s	22.9	0.0	17.3	21.9	0.0	9.8	0.0	0.0	0.0	1.3	8.9	9.0
Prop In Lane	1.00		0.23	1.00		0.21	1.00		0.22	1.00		0.27
Lane Grp Cap(c), veh/h	236	0	406	155	0	406	447	1670	1005	542	1899	1132
V/C Ratio(X)	0.58	0.00	0.69	0.29	0.00	0.42	0.15	0.31	0.31	0.10	0.27	0.28
Avail Cap(c_a), veh/h	406	0	657	313	0	657	447	1670	1005	701	1899	1132
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	0.0	42.4	52.4	0.0	39.5	0.0	0.0	0.0	7.4	7.9	8.0
Incr Delay (d2), s/veh	2.2	0.0	2.1	1.0	0.0	0.7	0.7	0.5	0.8	0.1	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	8.7	1.5	0.0	4.9	0.1	0.1	0.2	0.6	3.6	4.4
LnGrp Delay(d),s/veh	51.4	0.0	44.4	53.4	0.0	40.2	0.7	0.5	0.8	7.5	8.3	8.6
LnGrp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		415			215			900			886	
Approach Delay, s/veh		46.7			42.9			0.6			8.3	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	9.8	76.8		33.4		86.6		33.4
Change Period (Y+Rc), s	4.0	* 6		6.0		* 6		6.0
Max Green Setting (Gmax), s	16.4	* 43		44.4		* 64		44.4
Max Q Clear Time (g_c+I1), s	3.3	2.0		24.9		11.0		23.9
Green Ext Time (p_c), s	0.1	16.2		2.5		15.7		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

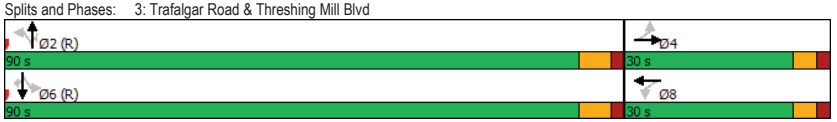
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	55	0	122	0	672	33	107	717	0
Future Volume (vph)	0	0	0	55	0	122	0	672	33	107	717	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt					0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3539	0	1410	2950	0	1863	4262	1404	1671	4262	1863
Flt Permitted				0.757						0.339		
Satd. Flow (perm)	1863	3539	0	1124	2950	0	1863	4262	1404	596	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					295				34			
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		175.7			120.2			286.4			537.5	
Travel Time (s)		12.7			8.7			12.9			24.2	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Heavy Vehicles (%)	2%	2%	2%	28%	2%	4%	2%	7%	15%	8%	7%	2%
Adj. Flow (vph)	0	0	0	57	0	127	0	700	34	111	747	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	57	127	0	0	700	34	111	747	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		41.6	41.6	41.6	41.6	41.6	41.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0					0	0	0	0	0	0
Act Effct Green (s)				12.4	12.4			95.5	95.5	95.5	95.5	
Actuated g/C Ratio				0.10	0.10			0.80	0.80	0.80	0.80	
v/c Ratio				0.49	0.22			0.21	0.03	0.23	0.22	
Control Delay				64.6	0.9			0.5	0.1	3.6	2.3	
Queue Delay				0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay				64.6	0.9			0.5	0.1	3.6	2.3	
LOS				E	A			A	A	A	A	
Approach Delay					20.6			0.5			2.5	
Approach LOS					C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 13.2 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 3.5		Intersection LOS: A	
Intersection Capacity Utilization 57.3%		ICU Level of Service B	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 3: Trafalgar Road & Threshing Mill Blvd



Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	57	127	700	34	111	747
v/c Ratio	0.49	0.22	0.21	0.03	0.23	0.22
Control Delay	64.6	0.9	0.5	0.1	3.6	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.6	0.9	0.5	0.1	3.6	2.3
Queue Length 50th (m)	13.7	0.0	1.5	0.0	3.3	9.0
Queue Length 95th (m)	27.1	0.0	2.5	0.0	7.3	13.5
Internal Link Dist (m)		96.2	262.4			513.5
Turn Bay Length (m)	25.0			45.0	65.0	
Base Capacity (vph)	229	837	3391	1123	474	3391
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.15	0.21	0.03	0.23	0.22

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	55	0	122	0	672	33	107	717	0
Future Volume (veh/h)	0	0	0	55	0	122	0	672	33	107	717	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1484	1827	1900	1863	1776	1652	1759	1776	1863
Adj Flow Rate, veh/h	0	0	0	57	0	127	0	700	34	111	747	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	2	2	2	28	2	4	2	7	15	8	7	2
Cap, veh/h	60	366	0	206	179	161	60	3391	1118	601	3391	1260
Arrive On Green	0.00	0.00	0.00	0.10	0.00	0.10	0.00	1.00	1.00	1.00	1.00	0.00
Sat Flow, veh/h	1258	3632	0	1414	1736	1553	711	4262	1404	680	4262	1583
Grp Volume(v), veh/h	0	0	0	57	0	127	0	700	34	111	747	0
Grp Sat Flow(s),veh/h/ln	1258	1770	0	1414	1736	1553	711	1421	1404	680	1421	1583
Q Serve(g_s), s	0.0	0.0	0.0	4.5	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	4.5	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	366	0	206	179	161	60	3391	1118	601	3391	1260
V/C Ratio(X)	0.00	0.00	0.00	0.28	0.00	0.79	0.00	0.21	0.03	0.18	0.22	0.00
Avail Cap(c_a), veh/h	187	723	0	349	354	317	60	3391	1118	601	3391	1260
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.99	0.99	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	50.3	0.0	52.5	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.7	0.0	8.4	0.0	0.1	0.0	0.7	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.8	0.0	4.5	0.0	0.0	0.0	0.1	0.0	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	51.0	0.0	60.9	0.0	0.1	0.0	0.7	0.1	0.0
LnGrp LOS				D		E		A	A	A	A	
Approach Vol, veh/h		0			184			734			858	
Approach Delay, s/veh		0.0			57.9			0.1			0.2	
Approach LOS					E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		102.1		17.9		102.1		17.9
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		2.0		0.0		2.0		11.6
Green Ext Time (p_c), s		14.4		0.0		19.1		0.9

Intersection Summary		
HCM 2010 Ctrl Delay		6.2
HCM 2010 LOS		A

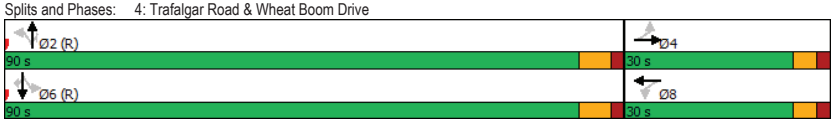
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	69	0	95	0	607	40	34	772	0
Future Volume (vph)	0	0	0	69	0	95	0	607	40	34	772	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt					0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3539	0	1327	2379	0	1863	4343	1292	1556	4262	1863
Flt Permitted				0.757						0.358		
Satd. Flow (perm)	1863	3539	0	1058	2379	0	1863	4343	1292	586	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					322				43			
Link Speed (k/h)		50			50			60			80	
Link Distance (m)		170.2			342.3			409.5			286.4	
Travel Time (s)		12.3			24.6			24.6			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Heavy Vehicles (%)	2%	2%	2%	36%	2%	29%	2%	5%	25%	16%	7%	2%
Adj. Flow (vph)	0	0	0	74	0	102	0	653	43	37	830	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	74	102	0	0	653	43	37	830	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0			
Pedestrian Calls (#/hr)	0	0					0	0	0			
Act Effct Green (s)				14.3	14.3			93.6	93.6	93.6	93.6	
Actuated g/C Ratio				0.12	0.12			0.78	0.78	0.78	0.78	
v/c Ratio				0.59	0.18			0.19	0.04	0.08	0.25	
Control Delay				67.9	0.7			3.9	1.4	3.5	3.2	
Queue Delay				0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay				67.9	0.7			3.9	1.4	3.5	3.2	
LOS				E	A			A	A	A	A	
Approach Delay					29.0			3.7			3.2	
Approach LOS					C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 6.0		Intersection LOS: A	
Intersection Capacity Utilization 46.7%		ICU Level of Service A	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	74	102	653	43	37	830
v/c Ratio	0.59	0.18	0.19	0.04	0.08	0.25
Control Delay	67.9	0.7	3.9	1.4	3.5	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.9	0.7	3.9	1.4	3.5	3.2
Queue Length 50th (m)	17.8	0.0	14.1	0.0	1.4	15.1
Queue Length 95th (m)	32.8	0.0	23.8	3.0	4.1	20.0
Internal Link Dist (m)		318.3	385.5			262.4
Turn Bay Length (m)	25.0			45.0	65.0	
Base Capacity (vph)	216	741	3387	1017	457	3324
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.14	0.19	0.04	0.08	0.25

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	69	0	95	0	607	40	34	772	0
Future Volume (veh/h)	0	0	0	69	0	95	0	607	40	34	772	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1397	1473	1900	1863	1810	1520	1638	1776	1863
Adj Flow Rate, veh/h	0	0	0	74	0	102	0	653	43	37	830	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Percent Heavy Veh, %	2	2	2	36	2	29	2	5	25	16	7	2
Cap, veh/h	60	363	0	196	144	128	60	3460	1029	559	3395	1261
Arrive On Green	0.00	0.00	0.00	0.10	0.00	0.10	0.00	0.80	0.80	1.00	1.00	0.00
Sat Flow, veh/h	1287	3632	0	1331	1399	1252	658	4343	1292	656	4262	1583
Grp Volume(v), veh/h	0	0	0	74	0	102	0	653	43	37	830	0
Grp Sat Flow(s),veh/h/ln	1287	1770	0	1331	1399	1252	658	1448	1292	656	1421	1583
Q Serve(g_s), s	0.0	0.0	0.0	6.3	0.0	9.6	0.0	4.3	0.8	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	6.3	0.0	9.6	0.0	4.3	0.8	4.6	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	363	0	196	144	128	60	3460	1029	559	3395	1261
V/C Ratio(X)	0.00	0.00	0.00	0.38	0.00	0.79	0.00	0.19	0.04	0.07	0.24	0.00
Avail Cap(c_a), veh/h	191	723	0	332	286	256	60	3460	1029	559	3395	1261
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.98	0.98	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	51.2	0.0	52.6	0.0	2.9	2.6	0.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.2	0.0	10.5	0.0	0.1	0.1	0.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	2.4	0.0	3.7	0.0	1.7	0.3	0.1	0.1	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	52.4	0.0	63.1	0.0	3.0	2.6	0.3	0.2	0.0
LnGrp LOS				D		E		A	A	A	A	
Approach Vol, veh/h		0			176			696			867	
Approach Delay, s/veh		0.0			58.6			3.0			0.2	
Approach LOS					E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		102.2		17.8		102.2		17.8
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		6.3		0.0		6.6		11.6
Green Ext Time (p_c), s		6.7		0.0		9.4		0.8

Intersection Summary		
HCM 2010 Ctrl Delay		7.2
HCM 2010 LOS		A

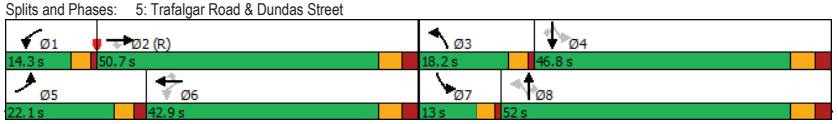
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	207	1618	205	177	968	8	164	475	118	101	564	123
Future Volume (vph)	207	1618	205	177	968	8	164	475	118	101	564	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98	1.00			1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	4343	1538	1736	4343	1524
Flt Permitted	0.950			0.070			0.197			0.403		
Satd. Flow (perm)	3400	5085	1557	124	4715	1292	359	4343	1538	736	4343	1497
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			196			172			138			171
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	211	1651	209	181	988	8	167	485	120	103	576	126
Shared Lane Traffic (%)												
Lane Group Flow (vph)	211	1651	209	181	988	8	167	485	120	103	576	126
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5	16.5	11.0	16.5	16.5
Total Split (s)	22.1	50.7	50.7	14.3	42.9	42.9	18.2	52.0	52.0	13.0	46.8	46.8
Total Split (%)	17.0%	39.0%	39.0%	11.0%	33.0%	33.0%	14.0%	40.0%	40.0%	10.0%	36.0%	36.0%
Maximum Green (s)	17.1	44.3	44.3	10.3	36.5	36.5	14.2	45.5	45.5	9.0	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	13.8	54.7	54.7	76.7	57.1	57.1	43.5	28.4	28.4	35.1	23.8	23.8
Actuated g/C Ratio	0.11	0.42	0.42	0.59	0.44	0.44	0.33	0.22	0.22	0.27	0.18	0.18
v/c Ratio	0.59	0.77	0.27	0.65	0.48	0.01	0.64	0.51	0.27	0.39	0.72	0.31
Control Delay	61.8	36.6	5.7	63.9	18.8	0.0	42.2	46.0	5.6	33.9	55.2	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.8	36.6	5.7	63.9	18.8	0.0	42.2	46.0	5.6	33.9	55.2	3.9
LOS	E	D	A	E	B	A	D	D	A	C	E	A
Approach Delay		36.1			25.6			38.9			44.5	
Approach LOS		D			C			D			D	

Intersection Summary		
Area Type:	Other	
Cycle Length: 130		
Actuated Cycle Length: 130		
Offset: 18.2 (14%), Referenced to phase 2:EBT, Start of Green		
Natural Cycle: 75		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.77		
Intersection Signal Delay: 35.4	Intersection LOS: D	
Intersection Capacity Utilization 81.1%	ICU Level of Service D	
Analysis Period (min) 15		

* User Entered Value

Splits and Phases: 5: Trafalgar Road & Dundas Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	211	1651	209	181	988	8	167	485	120	103	576	126
v/c Ratio	0.59	0.77	0.27	0.65	0.48	0.01	0.64	0.51	0.27	0.39	0.72	0.31
Control Delay	61.8	36.6	5.7	63.9	18.8	0.0	42.2	46.0	5.6	33.9	55.2	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.8	36.6	5.7	63.9	18.8	0.0	42.2	46.0	5.6	33.9	55.2	3.9
Queue Length 50th (m)	28.4	140.9	2.1	38.3	33.8	0.0	32.6	47.9	0.0	19.3	61.5	0.0
Queue Length 95th (m)	40.6	#192.1	19.9	63.7	65.2	m0.0	48.1	58.3	11.5	31.3	73.7	6.4
Internal Link Dist (m)		530.9			391.5			307.2			385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Base Capacity (vph)	449	2139	768	279	2070	664	271	1520	628	269	1346	582
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.77	0.27	0.65	0.48	0.01	0.62	0.32	0.19	0.38	0.43	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	207	1618	205	177	968	8	164	475	118	101	564	123
Future Volume (veh/h)	207	1618	205	177	968	8	164	475	118	101	564	123
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1810	1827	1810	1792
Adj Flow Rate, veh/h	211	1651	209	181	988	8	167	485	120	103	576	126
Adj No. of Lanes	2	3	1	1	3	1	1	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	275	2434	756	230	2178	595	268	990	348	265	861	300
Arrive On Green	0.08	0.48	0.48	0.07	0.46	0.46	0.09	0.23	0.23	0.06	0.20	0.20
Sat Flow, veh/h	3408	5085	1579	1691	4715	1289	1740	4343	1528	1740	4343	1512
Grp Volume(v), veh/h	211	1651	209	181	988	8	167	485	120	103	576	126
Grp Sat Flow(s),veh/h/ln	1704	1695	1579	1691	1572	1289	1740	1448	1528	1740	1448	1512
Q Serve(g_s), s	7.9	32.6	10.3	7.3	18.5	0.4	9.6	12.6	8.6	6.1	15.9	9.5
Cycle Q Clear(g_c), s	7.9	32.6	10.3	7.3	18.5	0.4	9.6	12.6	8.6	6.1	15.9	9.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	275	2434	756	230	2178	595	268	990	348	265	861	300
V/C Ratio(X)	0.77	0.68	0.28	0.79	0.45	0.01	0.62	0.49	0.34	0.39	0.67	0.42
Avail Cap(c_a), veh/h	448	2434	756	243	2178	595	300	1520	535	280	1346	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.5	26.2	20.4	25.3	23.8	18.9	36.5	43.6	42.0	38.3	48.2	45.6
Incr Delay (d2), s/veh	5.3	1.5	0.9	15.4	0.4	0.0	3.7	0.5	0.7	1.1	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	15.5	4.7	4.3	8.1	0.2	4.9	5.1	3.7	3.0	6.5	4.0
LnGrp Delay(d),s/veh	63.9	27.7	21.3	40.8	24.2	19.0	40.2	44.1	42.7	39.4	49.3	46.7
LnGrp LOS	E	C	C	D	C	B	D	D	D	D	D	D
Approach Vol, veh/h		2071			1177			772			805	
Approach Delay, s/veh		30.7			26.7			43.0			47.6	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	68.6	15.8	32.3	15.5	66.5	11.9	36.1
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	10.3	44.3	14.2	40.3	17.1	36.5	9.0	45.5
Max Q Clear Time (g_c+I1), s	9.3	34.6	11.6	17.9	9.9	20.5	8.1	14.6
Green Ext Time (p_c), s	0.1	9.2	0.2	6.2	0.6	11.0	0.0	5.7

Intersection Summary	
HCM 2010 Ctrl Delay	34.5
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	1863	32	132	1061	63	57	35	150	96	76	98
Future Volume (vph)	36	1863	32	132	1061	63	57	35	150	96	76	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00		0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.916	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3140	0
Flt Permitted	0.240			0.059			0.635			0.733		
Satd. Flow (perm)	438	4940	1470	110	4673	1281	1153	1900	1577	1376	3140	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			70			67			139		84	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	38	1982	34	140	1129	67	61	37	160	102	81	104
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	1982	34	140	1129	67	61	37	160	102	185	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	2	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	26.8	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	70.2	70.2	70.2	13.0	83.2	83.2	46.8	46.8	46.8	46.8	46.8	
Total Split (%)	54.0%	54.0%	54.0%	10.0%	64.0%	64.0%	36.0%	36.0%	36.0%	36.0%	36.0%	
Maximum Green (s)	63.4	63.4	63.4	9.0	76.4	76.4	39.4	39.4	39.4	39.4	39.4	
Yellow Time (s)	4.2	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.6	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.8	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	24.0	24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	63.6	63.6	63.6	79.2	76.4	76.4	39.4	39.4	39.4	39.4	39.4	
Actuated g/C Ratio	0.49	0.49	0.49	0.61	0.59	0.59	0.30	0.30	0.30	0.30	0.30	
v/c Ratio	0.18	0.82	0.05	0.78	0.41	0.09	0.17	0.06	0.28	0.24	0.18	
Control Delay	15.4	18.8	1.3	53.6	15.1	2.9	35.1	32.7	8.9	36.1	18.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	15.4	18.8	1.3	53.6	15.1	2.9	35.1	32.7	8.9	36.1	18.5	
LOS	B	B	A	D	B	A	D	C	A	D	B	
Approach Delay		18.4			18.5			18.5			24.7	
Approach LOS		B			B			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 9.1 (7%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 18.9		Intersection LOS: B	
Intersection Capacity Utilization 107.0%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 6: Postridge Drive & Dundas Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	38	1982	34	140	1129	67	61	37	160	102	185
v/c Ratio	0.18	0.82	0.05	0.78	0.41	0.09	0.17	0.06	0.28	0.24	0.18
Control Delay	15.4	18.8	1.3	53.6	15.1	2.9	35.1	32.7	8.9	36.1	18.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.4	18.8	1.3	53.6	15.1	2.9	35.1	32.7	8.9	36.1	18.5
Queue Length 50th (m)	2.1	42.1	0.0	20.2	57.6	0.0	12.1	7.1	4.0	20.7	10.3
Queue Length 95th (m)	m5.5	90.1	m0.7	#54.3	68.2	6.3	24.2	15.9	20.7	36.5	19.8
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	214	2417	754	181	2746	780	349	575	574	417	1010
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.82	0.05	0.77	0.41	0.09	0.17	0.06	0.28	0.24	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	1863	32	132	1061	63	57	35	150	96	76	98
Future Volume (veh/h)	36	1863	32	132	1061	63	57	35	150	96	76	98
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1825	1900
Adj Flow Rate, veh/h	38	1982	34	140	1129	67	61	37	160	102	81	104
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	264	2487	750	186	2746	770	349	576	481	398	525	466
Arrive On Green	0.50	0.50	0.50	0.05	0.59	0.59	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	457	4940	1489	1774	4673	1310	1164	1900	1586	1186	1734	1539
Grp Volume(v), veh/h	38	1982	34	140	1129	67	61	37	160	102	81	104
Grp Sat Flow(s),veh/h/ln	457	1647	1489	1774	1558	1310	1164	1900	1586	1186	1734	1539
Q Serve(g_s), s	6.4	43.3	1.5	4.8	17.1	2.9	5.4	1.8	10.2	8.7	4.4	6.6
Cycle Q Clear(g_c), s	12.5	43.3	1.5	4.8	17.1	2.9	11.9	1.8	10.2	10.5	4.4	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	264	2487	750	186	2746	770	349	576	481	398	525	466
V/C Ratio(X)	0.14	0.80	0.05	0.75	0.41	0.09	0.17	0.06	0.33	0.26	0.15	0.22
Avail Cap(c_a), veh/h	264	2487	750	214	2746	770	349	576	481	398	525	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.0	26.8	16.4	27.5	14.6	11.6	38.3	32.2	35.1	35.9	33.1	33.9
Incr Delay (d2), s/veh	1.1	2.8	0.1	12.0	0.5	0.2	1.1	0.2	1.9	1.5	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	20.3	0.6	3.2	7.4	1.1	1.8	1.0	4.7	3.0	2.2	2.9
LnGrp Delay(d),s/veh	22.1	29.5	16.5	39.6	15.0	11.9	39.4	32.4	37.0	37.5	33.7	35.0
LnGrp LOS	C	C	B	D	B	B	D	C	D	D	C	C
Approach Vol, veh/h		2054			1336			258			287	
Approach Delay, s/veh		29.2			17.4			36.9			35.5	
Approach LOS		C			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	11.0	72.2		46.8		83.2		46.8
Change Period (Y+Rc), s	4.0	6.8		* 7.4		6.8		* 7.4
Max Green Setting (Gmax), s	9.0	63.4		* 39		76.4		* 39
Max Q Clear Time (g_c+I1), s	6.8	45.3		13.9		19.1		12.5
Green Ext Time (p_c), s	0.1	14.9		1.3		14.2		1.9

Intersection Summary

HCM 2010 Ctrl Delay		26.2	
HCM 2010 LOS		C	

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	53	87	87	23	39	85
Future Volume (vph)	53	87	87	23	39	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.972		0.907	
Flt Protected		0.981			0.985	
Satd. Flow (prot)	0	1656	1737	0	1562	0
Flt Permitted		0.981			0.985	
Satd. Flow (perm)	0	1656	1737	0	1562	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		120.2	260.2		319.6	
Travel Time (s)		8.7	18.7		23.0	
Confl. Peds. (#/hr)					4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	25%	5%	8%	0%	8%	9%
Adj. Flow (vph)	60	99	99	26	44	97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	159	125	0	141	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	53	87	87	23	39	85
Future Vol, veh/h	53	87	87	23	39	85
Conflicting Peds, #/hr	0	0	0	0	4	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	88	88	88	88	88	88
Heavy Vehicles, %	25	5	8	0	8	9
Mvmt Flow	60	99	99	26	44	97

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	125	0	-	0	335	112
Stage 1	-	-	-	-	112	-
Stage 2	-	-	-	-	223	-
Critical Hdwy	4.35	-	-	-	6.48	6.29
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.425	-	-	-	3.572	3.381
Pot Cap-1 Maneuver	1331	-	-	-	648	922
Stage 1	-	-	-	-	898	-
Stage 2	-	-	-	-	800	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1331	-	-	-	617	922
Mov Cap-2 Maneuver	-	-	-	-	617	-
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	800	-

Approach	EB	WB	SB
HCM Control Delay, s	3	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1331	-	-	-	798
HCM Lane V/C Ratio	0.045	-	-	-	0.177
HCM Control Delay (s)	7.8	0	-	-	10.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

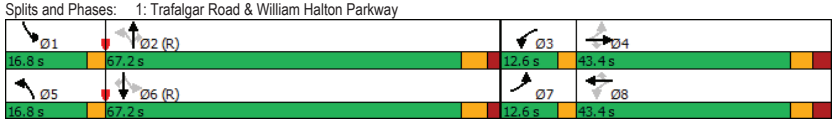
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	126	152	88	66	1289	16	97	1256	21	129	844	481
Future Volume (vph)	126	152	88	66	1289	16	97	1256	21	129	844	481
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4262	1553	1687	4515	1429
Flt Permitted	0.102			0.652			0.231			0.095		
Satd. Flow (perm)	181	3610	1583	1239	3374	1553	439	4262	1553	169	4515	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91			77			78			312
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	130	157	91	68	1329	16	100	1295	22	133	870	496
Shared Lane Traffic (%)												
Lane Group Flow (vph)	130	157	91	68	1329	16	100	1295	22	133	870	496
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	12.6	43.4	43.4	12.6	43.4	43.4	16.8	67.2	67.2	16.8	67.2	67.2
Total Split (%)	9.0%	31.0%	31.0%	9.0%	31.0%	31.0%	12.0%	48.0%	48.0%	12.0%	48.0%	48.0%
Maximum Green (s)	9.6	36.4	36.4	9.6	36.4	36.4	13.8	60.3	60.3	13.8	60.3	60.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	51.1	39.4	39.4	49.0	36.4	36.4	76.3	63.4	63.4	79.7	65.1	65.1
Actuated g/C Ratio	0.36	0.28	0.28	0.35	0.26	0.26	0.54	0.45	0.45	0.57	0.46	0.46
v/c Ratio	0.77	0.15	0.18	0.15	1.52	0.03	0.31	0.67	0.03	0.63	0.41	0.60
Control Delay	59.6	39.4	8.4	29.1	273.8	0.1	15.9	32.6	0.1	29.9	25.8	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.6	39.4	8.4	29.1	273.8	0.1	15.9	32.6	0.1	29.9	25.8	12.9
LOS	E	D	A	C	F	A	B	C	A	C	C	B
Approach Delay		38.9			258.9			30.9			21.9	
Approach LOS		D			F			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.52
Intersection Signal Delay: 97.1 Intersection LOS: F
Intersection Capacity Utilization 92.3% ICU Level of Service F
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 1: Trafalgar Road & William Halton Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	130	157	91	68	1329	16	100	1295	22	133	870	496
v/c Ratio	0.77	0.15	0.18	0.15	1.52	0.03	0.31	0.67	0.03	0.63	0.41	0.60
Control Delay	59.6	39.4	8.4	29.1	273.8	0.1	15.9	32.6	0.1	29.9	25.8	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.6	39.4	8.4	29.1	273.8	0.1	15.9	32.6	0.1	29.9	25.8	12.9
Queue Length 50th (m)	25.4	18.5	0.0	12.7	~283.3	0.0	12.5	121.2	0.0	17.0	68.6	36.8
Queue Length 95th (m)	#56.0	28.8	14.2	23.8	#328.2	0.0	21.4	147.7	0.0	34.2	85.2	76.7
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	169	1016	511	481	877	460	385	1928	745	247	2098	831
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.15	0.18	0.14	1.52	0.03	0.26	0.67	0.03	0.54	0.41	0.60

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	152	88	66	1289	16	97	1256	21	129	844	481
Future Volume (veh/h)	126	152	88	66	1289	16	97	1256	21	129	844	481
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	130	157	91	68	1329	16	100	1295	22	133	870	496
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	167	1018	447	422	877	404	284	2018	735	242	2169	686
Arrive On Green	0.07	0.28	0.28	0.05	0.26	0.26	0.05	0.47	0.47	0.06	0.48	0.48
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4262	1553	1691	4515	1429
Grp Volume(v), veh/h	130	157	91	68	1329	16	100	1295	22	133	870	496
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1421	1553	1691	1505	1429
Q Serve(g_s), s	7.7	4.6	6.1	3.8	36.4	1.1	3.9	32.2	1.1	5.6	17.4	38.7
Cycle Q Clear(g_c), s	7.7	4.6	6.1	3.8	36.4	1.1	3.9	32.2	1.1	5.6	17.4	38.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	1018	447	422	877	404	284	2018	735	242	2169	686
V/C Ratio(X)	0.78	0.15	0.20	0.16	1.52	0.04	0.35	0.64	0.03	0.55	0.40	0.72
Avail Cap(c_a), veh/h	167	1018	447	462	877	404	374	2018	735	315	2169	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.0	37.7	38.3	35.0	51.8	38.7	18.2	27.9	19.7	22.4	23.4	29.0
Incr Delay (d2), s/veh	20.2	0.1	0.5	0.2	237.7	0.1	0.7	1.6	0.1	1.9	0.6	6.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	2.3	2.7	1.9	45.9	0.5	2.0	12.9	0.5	2.7	7.3	16.4
LnGrp Delay(d),s/veh	58.2	37.9	38.8	35.2	289.5	38.8	18.9	29.4	19.8	24.3	24.0	35.4
LnGrp LOS	E	D	D	D	F	D	B	C	B	C	C	D
Approach Vol, veh/h		378			1413			1417			1499	
Approach Delay, s/veh		45.1			274.4			28.6			27.8	
Approach LOS		D			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	73.2	9.5	46.5	9.9	74.1	12.6	43.4
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	13.8	* 60	9.6	36.4	13.8	* 60	9.6	36.4
Max Q Clear Time (g_c+I1), s	7.6	34.2	5.8	8.1	5.9	40.7	9.7	38.4
Green Ext Time (p_c), s	0.2	18.6	0.1	2.9	0.2	14.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	103.4
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

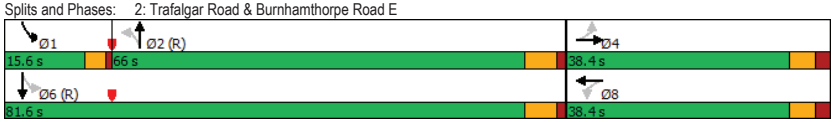
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	82	173	42	58	194	17	105	1014	63	17	753	149
Future Volume (vph)	82	173	42	58	194	17	105	1014	63	17	753	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.80	*0.80	1.00	*0.80	*0.80
Frt		0.971			0.988			0.991			0.975	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1795	0	1805	1811	0	1770	4202	0	1805	4148	0
Flt Permitted	0.353			0.343			0.240			0.162		
Satd. Flow (perm)	651	1795	0	652	1811	0	447	4202	0	308	4148	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			4			10			53	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	90	190	46	64	213	19	115	1114	69	19	827	164
Shared Lane Traffic (%)												
Lane Group Flow (vph)	90	236	0	64	232	0	115	1183	0	19	991	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		7.0	20.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		26.0	26.0		11.0	26.0	
Total Split (s)	38.4	38.4		38.4	38.4		66.0	66.0		15.6	81.6	
Total Split (%)	32.0%	32.0%		32.0%	32.0%		55.0%	55.0%		13.0%	68.0%	
Maximum Green (s)	32.4	32.4		32.4	32.4		60.0	60.0		11.6	75.6	
Yellow Time (s)	3.7	3.7		3.7	3.7		4.6	4.6		3.0	4.6	
All-Red Time (s)	2.3	2.3		2.3	2.3		1.4	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	20.5	20.5		20.5	20.5		83.1	83.1		89.5	87.5	
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.69	0.69		0.75	0.73	
v/c Ratio	0.81	0.75		0.58	0.74		0.37	0.41		0.06	0.33	
Control Delay	93.1	59.6		64.9	60.3		15.1	9.8		5.5	6.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	93.1	59.6		64.9	60.3		15.1	9.8		5.5	6.2	
LOS	F	E		E	E		B	A		A	A	
Approach Delay		68.8			61.3			10.3			6.2	
Approach LOS		E			E			B			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 20.5 Intersection LOS: C
Intersection Capacity Utilization 74.5% ICU Level of Service D
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	90	236	64	232	115	1183	19	991
v/c Ratio	0.81	0.75	0.58	0.74	0.37	0.41	0.06	0.33
Control Delay	93.1	59.6	64.9	60.3	15.1	9.8	5.5	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.1	59.6	64.9	60.3	15.1	9.8	5.5	6.2
Queue Length 50th (m)	21.7	53.9	14.8	54.3	11.7	51.2	1.1	29.9
Queue Length 95th (m)	#42.9	77.2	28.8	77.1	37.2	93.8	3.8	46.7
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	175	491	176	491	309	2912	374	3038
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.48	0.36	0.47	0.37	0.41	0.05	0.33

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	173	42	58	194	17	105	1014	63	17	753	149
Future Volume (veh/h)	82	173	42	58	194	17	105	1014	63	17	753	149
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1849	1900	1900	1833	1900	1863	1767	1900	1900	1773	1900
Adj Flow Rate, veh/h	90	190	46	64	213	19	115	1114	69	19	827	164
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	177	315	76	176	363	32	394	2657	164	408	2549	503
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	1.00	1.00	1.00	0.03	0.68	0.68
Sat Flow, veh/h	1133	1439	348	1162	1659	148	566	4282	265	1810	3741	738
Grp Volume(v), veh/h	90	0	236	64	0	232	115	735	448	19	626	365
Grp Sat Flow(s),veh/h/ln	1133	0	1787	1162	0	1807	566	1414	1720	1810	1418	1643
Q Serve(g_s), s	9.3	0.0	14.3	6.3	0.0	13.8	1.8	0.0	0.0	0.4	10.8	10.9
Cycle Q Clear(g_c), s	23.1	0.0	14.3	20.6	0.0	13.8	5.4	0.0	0.0	0.4	10.8	10.9
Prop In Lane	1.00		0.19	1.00		0.08	1.00		0.15	1.00		0.45
Lane Grp Cap(c), veh/h	177	0	391	176	0	395	394	1754	1067	408	1932	1119
V/C Ratio(X)	0.51	0.00	0.60	0.36	0.00	0.59	0.29	0.42	0.42	0.05	0.32	0.33
Avail Cap(c_a), veh/h	235	0	483	236	0	488	394	1754	1067	534	1932	1119
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.4	0.0	42.2	51.4	0.0	42.0	0.1	0.0	0.0	6.8	7.8	7.8
Incr Delay (d2), s/veh	2.2	0.0	1.5	1.3	0.0	1.4	1.9	0.7	1.2	0.0	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	7.2	2.1	0.0	7.0	0.4	0.2	0.4	0.2	4.3	5.1
LnGrp Delay(d),s/veh	54.6	0.0	43.7	52.7	0.0	43.4	2.0	0.7	1.2	6.9	8.3	8.6
LnGrp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		326			296			1298			1010	
Approach Delay, s/veh		46.7			45.4			1.0			8.4	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	7.3	80.5		32.3		87.7		32.3
Change Period (Y+Rc), s	4.0	* 6		6.0		* 6		6.0
Max Green Setting (Gmax), s	11.6	* 60		32.4		* 76		32.4
Max Q Clear Time (g_c+I1), s	2.4	7.4		25.1		12.9		22.6
Green Ext Time (p_c), s	0.0	29.3		1.2		21.2		1.3

Intersection Summary

HCM 2010 Ctrl Delay		13.1
HCM 2010 LOS		B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

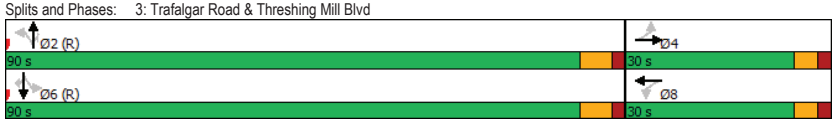
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	46	0	209	0	976	62	77	778	0
Future Volume (vph)	0	0	0	46	0	209	0	976	62	77	778	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt					0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3539	0	1410	2950	0	1863	4262	1404	1671	4262	1863
Flt Permitted				0.757						0.231		
Satd. Flow (perm)	1863	3539	0	1124	2950	0	1863	4262	1404	406	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					159				65			
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		175.7			120.2			286.4			537.5	
Travel Time (s)		12.7			8.7			12.9			24.2	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Heavy Vehicles (%)	2%	2%	2%	28%	2%	4%	2%	7%	15%	8%	7%	2%
Adj. Flow (vph)	0	0	0	48	0	218	0	1017	65	80	810	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	48	218	0	0	1017	65	80	810	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		41.6	41.6	41.6	41.6	41.6	41.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0					0	0	0	0	0	0
Act Effct Green (s)				11.7	11.7			96.2	96.2	96.2	96.2	
Actuated g/C Ratio				0.10	0.10			0.80	0.80	0.80	0.80	
v/c Ratio				0.44	0.50			0.30	0.06	0.25	0.24	
Control Delay				63.0	19.6			1.5	0.2	4.5	2.6	
Queue Delay				0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay				63.0	19.6			1.5	0.2	4.5	2.6	
LOS				E	B			A	A	A	A	
Approach Delay					27.4			1.5			2.8	
Approach LOS					C			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 20.4 (17%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.50
Intersection Signal Delay: 5.1 Intersection LOS: A
Intersection Capacity Utilization 59.4% ICU Level of Service B
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 3: Trafalgar Road & Threshing Mill Blvd



Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	48	218	1017	65	80	810
v/c Ratio	0.44	0.50	0.30	0.06	0.25	0.24
Control Delay	63.0	19.6	1.5	0.2	4.5	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.0	19.6	1.5	0.2	4.5	2.6
Queue Length 50th (m)	11.5	7.3	6.8	0.0	3.2	13.2
Queue Length 95th (m)	23.7	19.1	11.0	0.0	6.5	16.7
Internal Link Dist (m)		96.2	262.4			513.5
Turn Bay Length (m)	25.0			45.0	65.0	
Base Capacity (vph)	229	728	3415	1137	325	3415
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.30	0.30	0.06	0.25	0.24

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	46	0	209	0	976	62	77	778	0
Future Volume (veh/h)	0	0	0	46	0	209	0	976	62	77	778	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1484	1827	1900	1863	1776	1652	1759	1776	1863
Adj Flow Rate, veh/h	0	0	0	48	0	218	0	1017	65	80	810	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	2	2	2	28	2	4	2	7	15	8	7	2
Cap, veh/h	60	569	0	287	279	250	60	3146	1037	422	3146	1169
Arrive On Green	0.00	0.00	0.00	0.16	0.00	0.16	0.00	1.00	1.00	0.24	0.24	0.00
Sat Flow, veh/h	1158	3632	0	1414	1736	1553	671	4262	1404	490	4262	1583
Grp Volume(v), veh/h	0	0	0	48	0	218	0	1017	65	80	810	0
Grp Sat Flow(s),veh/h/ln	1158	1770	0	1414	1736	1553	671	1421	1404	490	1421	1583
Q Serve(g_s), s	0.0	0.0	0.0	3.5	0.0	16.4	0.0	0.0	0.0	15.6	18.4	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.5	0.0	16.4	0.0	0.0	0.0	15.6	18.4	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	569	0	287	279	250	60	3146	1037	422	3146	1169
V/C Ratio(X)	0.00	0.00	0.00	0.17	0.00	0.87	0.00	0.32	0.06	0.19	0.26	0.00
Avail Cap(c_a), veh/h	110	723	0	349	354	317	60	3146	1037	422	3146	1169
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.97	0.97	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	43.7	0.0	49.2	0.0	0.0	0.0	17.8	18.8	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.0	18.9	0.0	0.3	0.1	1.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.4	0.0	8.3	0.0	0.1	0.0	2.3	7.3	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	44.0	0.0	68.1	0.0	0.3	0.1	18.8	19.0	0.0
LnGrp LOS				D		E		A	A	B	B	
Approach Vol, veh/h		0			266			1082			890	
Approach Delay, s/veh		0.0			63.7			0.3			19.0	
Approach LOS					E			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		95.2		24.8		95.2		24.8
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		2.0		0.0		20.4		18.4
Green Ext Time (p_c), s		25.7		0.0		19.9		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	15.3
HCM 2010 LOS	B

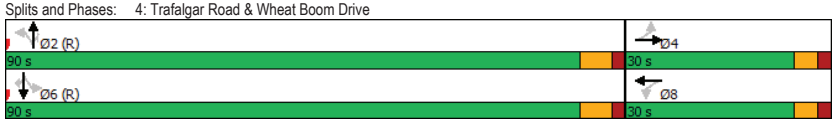
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	88	0	128	0	904	94	76	785	0
Future Volume (vph)	0	0	0	88	0	128	0	904	94	76	785	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt					0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3539	0	1327	2379	0	1863	4343	1292	1556	4262	1863
Flt Permitted				0.757						0.241		
Satd. Flow (perm)	1863	3539	0	1058	2379	0	1863	4343	1292	395	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					174				101			
Link Speed (k/h)		50			50			60			80	
Link Distance (m)		170.2			342.3			409.5			286.4	
Travel Time (s)		12.3			24.6			24.6			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Heavy Vehicles (%)	2%	2%	2%	36%	2%	29%	2%	5%	25%	16%	7%	2%
Adj. Flow (vph)	0	0	0	95	0	138	0	972	101	82	844	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	95	138	0	0	972	101	82	844	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0			
Pedestrian Calls (#/hr)	0	0					0	0	0			
Act Effct Green (s)				16.3	16.3			91.6	91.6	91.6	91.6	
Actuated g/C Ratio				0.14	0.14			0.76	0.76	0.76	0.76	
v/c Ratio				0.66	0.29			0.29	0.10	0.27	0.26	
Control Delay				69.6	4.2			5.0	1.2	6.0	3.5	
Queue Delay				0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay				69.6	4.2			5.0	1.2	6.0	3.5	
LOS				E	A			A	A	A	A	
Approach Delay					30.9			4.7			3.7	
Approach LOS					C			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 13.2 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 7.0 Intersection LOS: A
Intersection Capacity Utilization 58.0% ICU Level of Service B
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	95	138	972	101	82	844
v/c Ratio	0.66	0.29	0.29	0.10	0.27	0.26
Control Delay	69.6	4.2	5.0	1.2	6.0	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.6	4.2	5.0	1.2	6.0	3.5
Queue Length 50th (m)	22.7	0.0	25.7	0.0	3.2	13.6
Queue Length 95th (m)	39.3	4.9	41.7	5.0	8.1	21.3
Internal Link Dist (m)		318.3	385.5			262.4
Turn Bay Length (m)	25.0			45.0	65.0	
Base Capacity (vph)	216	624	3314	1009	301	3252
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.22	0.29	0.10	0.27	0.26

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	88	0	128	0	904	94	76	785	0
Future Volume (veh/h)	0	0	0	88	0	128	0	904	94	76	785	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1397	1473	1900	1863	1810	1520	1638	1776	1863
Adj Flow Rate, veh/h	0	0	0	95	0	138	0	972	101	82	844	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Percent Heavy Veh, %	2	2	2	36	2	29	2	5	25	16	7	2
Cap, veh/h	60	467	0	236	185	165	60	3332	991	382	3269	1215
Arrive On Green	0.00	0.00	0.00	0.13	0.00	0.13	0.00	0.77	0.77	1.00	1.00	0.00
Sat Flow, veh/h	1246	3632	0	1331	1399	1252	650	4343	1292	460	4262	1583
Grp Volume(v), veh/h	0	0	0	95	0	138	0	972	101	82	844	0
Grp Sat Flow(s),veh/h/ln	1246	1770	0	1331	1399	1252	650	1448	1292	460	1421	1583
Q Serve(g_s), s	0.0	0.0	0.0	8.0	0.0	12.9	0.0	8.1	2.4	2.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	8.0	0.0	12.9	0.0	8.1	2.4	10.5	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	467	0	236	185	165	60	3332	991	382	3269	1215
V/C Ratio(X)	0.00	0.00	0.00	0.40	0.00	0.84	0.00	0.29	0.10	0.21	0.26	0.00
Avail Cap(c_a), veh/h	150	723	0	332	286	256	60	3332	991	382	3269	1215
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.98	0.98	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	48.7	0.0	50.8	0.0	4.2	3.5	0.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.1	0.0	13.1	0.0	0.2	0.2	1.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	3.0	0.0	5.0	0.0	3.2	0.9	0.4	0.1	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	49.8	0.0	63.9	0.0	4.4	3.7	1.7	0.2	0.0
LnGrp LOS				D		E		A	A	A	A	
Approach Vol, veh/h		0			233			1073			926	
Approach Delay, s/veh		0.0			58.1			4.3			0.3	
Approach LOS					E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		98.7		21.3		98.7		21.3
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		10.1		0.0		12.5		14.9
Green Ext Time (p_c), s		11.7		0.0		11.4		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	8.3
HCM 2010 LOS	A

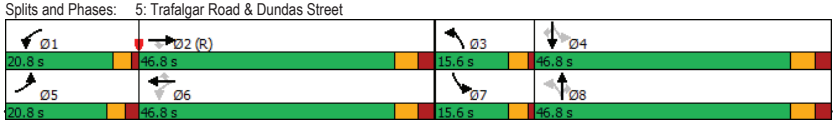
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	253	1425	215	216	1872	11	263	714	233	123	490	236
Future Volume (vph)	253	1425	215	216	1872	11	263	714	233	123	490	236
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98	1.00			1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	4343	1538	1736	4343	1524
Flt Permitted	0.950			0.078			0.322			0.177		
Satd. Flow (perm)	3400	5085	1557	138	4715	1292	587	4343	1538	323	4343	1497
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			219			105			238			241
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	258	1454	219	220	1910	11	268	729	238	126	500	241
Shared Lane Traffic (%)												
Lane Group Flow (vph)	258	1454	219	220	1910	11	268	729	238	126	500	241
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5	16.5	11.0	16.5	16.5
Total Split (s)	20.8	46.8	46.8	20.8	46.8	46.8	15.6	46.8	46.8	15.6	46.8	46.8
Total Split (%)	16.0%	36.0%	36.0%	16.0%	36.0%	36.0%	12.0%	36.0%	36.0%	12.0%	36.0%	36.0%
Maximum Green (s)	15.8	40.4	40.4	16.8	40.4	40.4	11.6	40.3	40.3	11.6	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	15.5	50.8	50.8	72.2	52.0	52.0	43.7	29.6	29.6	42.4	28.9	28.9
Actuated g/C Ratio	0.12	0.39	0.39	0.56	0.40	0.40	0.34	0.23	0.23	0.33	0.22	0.22
v/c Ratio	0.64	0.73	0.30	0.76	1.01	0.02	0.90	0.74	0.45	0.56	0.52	0.46
Control Delay	61.5	38.0	5.2	64.3	50.5	0.0	65.3	51.1	7.3	37.4	45.7	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.5	38.0	5.2	64.3	50.5	0.0	65.3	51.1	7.3	37.4	45.7	7.5
LOS	E	D	A	E	D	A	E	D	A	D	D	A
Approach Delay		37.4			51.7			45.8			33.9	
Approach LOS		D			D			D			C	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 40.3 (31%), Referenced to phase 2:EBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 43.5 Intersection LOS: D
Intersection Capacity Utilization 88.6% ICU Level of Service E
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 5: Trafalgar Road & Dundas Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	258	1454	219	220	1910	11	268	729	238	126	500	241
v/c Ratio	0.64	0.73	0.30	0.76	1.01	0.02	0.90	0.74	0.45	0.56	0.52	0.46
Control Delay	61.5	38.0	5.2	64.3	50.5	0.0	65.3	51.1	7.3	37.4	45.7	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.5	38.0	5.2	64.3	50.5	0.0	65.3	51.1	7.3	37.4	45.7	7.5
Queue Length 50th (m)	34.6	123.6	0.0	51.1	~134.6	0.0	53.9	76.8	0.0	23.1	49.5	0.0
Queue Length 95th (m)	47.7	#167.4	18.4	m61.7	#266.1	m0.0	#86.5	88.2	20.3	35.3	59.5	20.4
Internal Link Dist (m)		530.9			391.5			307.2			385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Base Capacity (vph)	440	1986	741	304	1886	580	299	1346	641	232	1346	630
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.73	0.30	0.72	1.01	0.02	0.90	0.54	0.37	0.54	0.37	0.38

Intersection Summary

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	1425	215	216	1872	11	263	714	233	123	490	236
Future Volume (veh/h)	253	1425	215	216	1872	11	263	714	233	123	490	236
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1810	1827	1810	1792
Adj Flow Rate, veh/h	258	1454	219	220	1910	11	268	729	238	126	500	241
Adj No. of Lanes	2	3	1	1	3	1	1	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	319	2248	698	270	2034	556	291	1023	360	225	944	329
Arrive On Green	0.09	0.44	0.44	0.09	0.43	0.43	0.09	0.24	0.24	0.07	0.22	0.22
Sat Flow, veh/h	3408	5085	1579	1691	4715	1288	1740	4343	1528	1740	4343	1513
Grp Volume(v), veh/h	258	1454	219	220	1910	11	268	729	238	126	500	241
Grp Sat Flow(s),veh/h/ln	1704	1695	1579	1691	1572	1288	1740	1448	1528	1740	1448	1513
Q Serve(g_s), s	9.6	29.0	11.7	9.3	50.3	0.6	11.6	20.0	18.3	7.2	13.2	19.3
Cycle Q Clear(g_c), s	9.6	29.0	11.7	9.3	50.3	0.6	11.6	20.0	18.3	7.2	13.2	19.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	319	2248	698	270	2034	556	291	1023	360	225	944	329
V/C Ratio(X)	0.81	0.65	0.31	0.81	0.94	0.02	0.92	0.71	0.66	0.56	0.53	0.73
Avail Cap(c_a), veh/h	414	2248	698	335	2034	556	291	1346	474	257	1346	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.8	28.3	23.5	25.2	35.3	21.2	42.8	45.6	45.0	37.0	45.0	47.4
Incr Delay (d2), s/veh	9.5	1.5	1.2	12.5	9.6	0.0	32.7	1.4	2.5	2.6	0.6	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	13.9	5.3	5.2	23.6	0.2	10.1	8.2	8.0	3.6	5.3	8.4
LnGrp Delay(d),s/veh	67.2	29.8	24.7	37.7	44.9	21.2	75.5	47.0	47.5	39.7	45.6	51.5
LnGrp LOS	E	C	C	D	D	C	E	D	D	D	D	D
Approach Vol, veh/h		1931			2141			1235			867	
Approach Delay, s/veh		34.2			44.1			53.3			46.3	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.8	63.9	15.6	34.8	17.2	62.5	13.2	37.1
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	16.8	40.4	11.6	40.3	15.8	40.4	11.6	40.3
Max Q Clear Time (g_c+I1), s	11.3	31.0	13.6	21.3	11.6	52.3	9.2	22.0
Green Ext Time (p_c), s	0.5	8.7	0.0	5.8	0.5	0.0	0.1	7.7

Intersection Summary	
HCM 2010 Ctrl Delay	43.2
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	1442	60	260	1987	93	112	80	136	88	55	45
Future Volume (vph)	66	1442	60	260	1987	93	112	80	136	88	55	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00		0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.933	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3213	0
Flt Permitted	0.075			0.070			0.684			0.702		
Satd. Flow (perm)	137	4940	1470	130	4673	1281	1241	1900	1577	1318	3213	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			104			82			145		48	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	70	1534	64	277	2114	99	119	85	145	94	59	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	70	1534	64	277	2114	99	119	85	145	94	107	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	11.0	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	11.7	57.2	57.2	26.0	71.5	71.5	46.8	46.8	46.8	46.8	46.8	
Total Split (%)	9.0%	44.0%	44.0%	20.0%	55.0%	55.0%	36.0%	36.0%	36.0%	36.0%	36.0%	
Maximum Green (s)	7.7	50.4	50.4	22.0	64.7	64.7	39.4	39.4	39.4	39.4	39.4	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)		24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	63.5	53.3	53.3	79.2	67.2	67.2	39.4	39.4	39.4	39.4	39.4	
Actuated g/C Ratio	0.49	0.41	0.41	0.61	0.52	0.52	0.30	0.30	0.30	0.30	0.30	
v/c Ratio	0.45	0.76	0.10	0.87	0.88	0.14	0.32	0.15	0.25	0.24	0.11	
Control Delay	34.8	23.1	3.5	60.2	33.5	5.5	37.8	34.0	6.2	36.0	18.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	34.8	23.1	3.5	60.2	33.5	5.5	37.8	34.0	6.2	36.0	18.8	
LOS	C	C	A	E	C	A	D	C	A	D	B	
Approach Delay		22.9			35.4			23.8			26.9	
Approach LOS		C			D			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 36.4 (28%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 29.7		Intersection LOS: C	
Intersection Capacity Utilization 91.9%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 6: Postridge Drive & Dundas Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	70	1534	64	277	2114	99	119	85	145	94	107
v/c Ratio	0.45	0.76	0.10	0.87	0.88	0.14	0.32	0.15	0.25	0.24	0.11
Control Delay	34.8	23.1	3.5	60.2	33.5	5.5	37.8	34.0	6.2	36.0	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.8	23.1	3.5	60.2	33.5	5.5	37.8	34.0	6.2	36.0	18.8
Queue Length 50th (m)	7.8	40.0	0.0	55.2	186.1	2.3	24.8	16.7	0.0	19.0	5.9
Queue Length 95th (m)	m19.3	85.2	m3.4	#96.1	211.5	12.0	42.7	30.4	15.6	34.3	13.3
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	161	2027	664	356	2415	701	376	575	579	399	1007
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.76	0.10	0.78	0.88	0.14	0.32	0.15	0.25	0.24	0.11

Intersection Summary
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

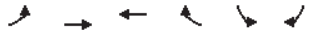
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	1442	60	260	1987	93	112	80	136	88	55	45
Future Volume (veh/h)	66	1442	60	260	1987	93	112	80	136	88	55	45
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1829	1900
Adj Flow Rate, veh/h	70	1534	64	277	2114	99	119	85	145	94	59	48
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	159	2224	670	309	2371	665	403	576	481	367	579	423
Arrive On Green	0.05	0.45	0.45	0.11	0.51	0.51	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1740	4940	1489	1774	4673	1310	1249	1900	1586	1151	1911	1396
Grp Volume(v), veh/h	70	1534	64	277	2114	99	119	85	145	94	53	54
Grp Sat Flow(s),veh/h/ln	1740	1647	1489	1774	1558	1310	1249	1900	1586	1151	1737	1569
Q Serve(g_s), s	2.7	32.2	3.2	11.1	52.9	5.2	9.9	4.2	9.1	8.4	2.9	3.2
Cycle Q Clear(g_c), s	2.7	32.2	3.2	11.1	52.9	5.2	13.1	4.2	9.1	12.7	2.9	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.89
Lane Grp Cap(c), veh/h	159	2224	670	309	2371	665	403	576	481	367	527	476
V/C Ratio(X)	0.44	0.69	0.10	0.90	0.89	0.15	0.30	0.15	0.30	0.26	0.10	0.11
Avail Cap(c_a), veh/h	176	2224	670	420	2371	665	403	576	481	367	527	476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.5	28.5	20.5	27.4	28.8	17.1	37.4	33.0	34.7	37.7	32.6	32.7
Incr Delay (d2), s/veh	1.9	1.8	0.3	17.2	5.6	0.5	1.9	0.5	1.6	1.7	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	15.0	1.4	11.2	23.9	2.0	3.6	2.3	4.2	2.9	1.4	1.5
LnGrp Delay(d),s/veh	30.4	30.3	20.8	44.6	34.4	17.5	39.3	33.6	36.4	39.4	32.9	33.2
LnGrp LOS	C	C	C	D	C	B	D	C	D	D	C	C
Approach Vol, veh/h		1668			2490			349			201	
Approach Delay, s/veh		29.9			34.9			36.7			36.0	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.9	65.3		46.8	10.4	72.8		46.8
Change Period (Y+Rc), s	4.0	6.8		* 7.4	4.0	6.8		* 7.4
Max Green Setting (Gmax), s	22.0	50.4		* 39	7.7	64.7		* 39
Max Q Clear Time (g_c+I1), s	13.1	34.2		15.1	4.7	54.9		14.7
Green Ext Time (p_c), s	0.8	11.1		1.9	0.0	8.8		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	33.3
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	86	88	186	29	45	107
Future Volume (vph)	86	88	186	29	45	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.982		0.905	
Flt Protected		0.976			0.985	
Satd. Flow (prot)	0	1614	1745	0	1558	0
Flt Permitted		0.976			0.985	
Satd. Flow (perm)	0	1614	1745	0	1558	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		120.2	260.2		319.6	
Travel Time (s)		8.7	18.7		23.0	
Confl. Peds. (#/hr)					4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	25%	5%	8%	0%	8%	9%
Adj. Flow (vph)	98	100	211	33	51	122
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	198	244	0	173	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	40.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	86	88	186	29	45	107
Future Vol, veh/h	86	88	186	29	45	107
Conflicting Peds, #/hr	0	0	0	0	4	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	88	88	88	88	88	88
Heavy Vehicles, %	25	5	8	0	8	9
Mvmt Flow	98	100	211	33	51	122

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	244	0	-	0	528	228
Stage 1	-	-	-	-	228	-
Stage 2	-	-	-	-	300	-
Critical Hdwy	4.35	-	-	-	6.48	6.29
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.425	-	-	-	3.572	3.381
Pot Cap-1 Maneuver	1199	-	-	-	501	794
Stage 1	-	-	-	-	796	-
Stage 2	-	-	-	-	738	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1199	-	-	-	457	794
Mov Cap-2 Maneuver	-	-	-	-	457	-
Stage 1	-	-	-	-	727	-
Stage 2	-	-	-	-	738	-

Approach	EB	WB	SB
HCM Control Delay, s	4.1	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1199	-	-	-	652
HCM Lane V/C Ratio	0.082	-	-	-	0.265
HCM Control Delay (s)	8.3	0	-	-	12.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	1.1

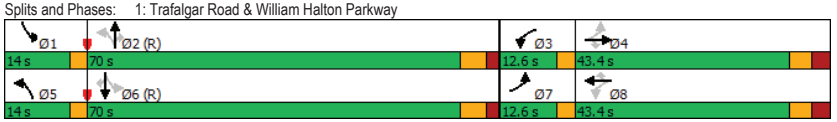
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	197	435	190	43	840	26	108	956	48	197	687	129
Future Volume (vph)	197	435	190	43	840	26	108	956	48	197	687	129
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4262	1553	1687	4515	1429
Flt Permitted	0.100			0.427			0.302			0.176		
Satd. Flow (perm)	178	3610	1583	811	3374	1553	574	4262	1553	313	4515	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			196			77			78			133
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	203	448	196	44	866	27	111	986	49	203	708	133
Shared Lane Traffic (%)												
Lane Group Flow (vph)	203	448	196	44	866	27	111	986	49	203	708	133
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	12.6	43.4	43.4	12.6	43.4	43.4	14.0	70.0	70.0	14.0	70.0	70.0
Total Split (%)	9.0%	31.0%	31.0%	9.0%	31.0%	31.0%	10.0%	50.0%	50.0%	10.0%	50.0%	50.0%
Maximum Green (s)	9.6	36.4	36.4	9.6	36.4	36.4	11.0	63.1	63.1	11.0	63.1	63.1
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	51.7	40.1	40.1	48.3	36.4	36.4	76.4	63.3	63.3	79.6	64.9	64.9
Actuated g/C Ratio	0.37	0.29	0.29	0.34	0.26	0.26	0.55	0.45	0.45	0.57	0.46	0.46
v/c Ratio	1.20	0.43	0.33	0.13	0.99	0.06	0.28	0.51	0.07	0.72	0.34	0.18
Control Delay	165.0	43.1	6.8	28.9	78.8	0.2	15.3	28.5	1.6	29.9	24.6	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	165.0	43.1	6.8	28.9	78.8	0.2	15.3	28.5	1.6	29.9	24.6	4.1
LOS	F	D	A	C	E	A	B	C	A	C	C	A
Approach Delay		63.9			74.2			26.1			23.1	
Approach LOS		E			E			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.20
Intersection Signal Delay: 44.7 Intersection LOS: D
Intersection Capacity Utilization 81.8% ICU Level of Service D
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 1: Trafalgar Road & William Halton Parkway



Queues
1: Trafalgar Road & William Halton Parkway

Future Background Phase 2
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	203	448	196	44	866	27	111	986	49	203	708	133
v/c Ratio	1.20	0.43	0.33	0.13	0.99	0.06	0.28	0.51	0.07	0.72	0.34	0.18
Control Delay	165.0	43.1	6.8	28.9	78.8	0.2	15.3	28.5	1.6	29.9	24.6	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	165.0	43.1	6.8	28.9	78.8	0.2	15.3	28.5	1.6	29.9	24.6	4.1
Queue Length 50th (m)	~55.0	57.2	0.0	8.1	133.0	0.0	13.9	84.2	0.0	27.2	53.7	0.0
Queue Length 95th (m)	#110.0	76.1	19.7	16.9	#178.6	0.0	23.4	100.1	2.9	#43.9	67.4	12.1
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	169	1032	592	357	877	460	417	1927	745	286	2092	733
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.20	0.43	0.33	0.12	0.99	0.06	0.27	0.51	0.07	0.71	0.34	0.18

Intersection Summary

~ 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.

HCM 2010 Signalized Intersection Summary
1: Trafalgar Road & William Halton Parkway

Future Background Phase 2
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	197	435	190	43	840	26	108	956	48	197	687	129
Future Volume (veh/h)	197	435	190	43	840	26	108	956	48	197	687	129
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	203	448	196	44	866	27	111	986	49	203	708	133
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	170	1038	455	275	877	404	395	1929	703	330	2167	686
Arrive On Green	0.07	0.29	0.29	0.04	0.26	0.26	0.05	0.45	0.45	0.08	0.48	0.48
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4262	1553	1691	4515	1429
Grp Volume(v), veh/h	203	448	196	44	866	27	111	986	49	203	708	133
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1421	1553	1691	1505	1429
Q Serve(g_s), s	9.6	14.1	14.1	2.4	35.8	1.8	4.6	23.1	2.5	8.7	13.5	7.5
Cycle Q Clear(g_c), s	9.6	14.1	14.1	2.4	35.8	1.8	4.6	23.1	2.5	8.7	13.5	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	1038	455	275	877	404	395	1929	703	330	2167	686
V/C Ratio(X)	1.19	0.43	0.43	0.16	0.99	0.07	0.28	0.51	0.07	0.62	0.33	0.19
Avail Cap(c_a), veh/h	170	1038	455	325	877	404	448	1929	703	333	2167	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.5	40.6	40.5	35.5	51.6	39.0	18.9	27.3	21.7	20.3	22.5	20.9
Incr Delay (d2), s/veh	130.7	0.6	1.4	0.3	27.3	0.1	0.4	1.0	0.2	3.3	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	7.1	6.3	1.2	20.0	0.8	2.3	9.2	1.1	4.3	5.7	3.1
LnGrp Delay(d),s/veh	171.3	41.2	41.9	35.7	78.8	39.2	19.3	28.3	21.9	23.6	22.9	21.5
LnGrp LOS	F	D	D	D	E	D	B	C	C	C	C	C
Approach Vol, veh/h		847			937			1146			1044	
Approach Delay, s/veh		72.5			75.7			27.1			22.8	
Approach LOS		E			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	70.3	8.7	47.3	9.9	74.1	12.6	43.4
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	11.0	* 63	9.6	36.4	11.0	* 63	9.6	36.4
Max Q Clear Time (g_c+I1), s	10.7	25.1	4.4	16.1	6.6	15.5	11.6	37.8
Green Ext Time (p_c), s	0.0	18.4	0.0	7.4	0.1	14.8	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	47.1
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

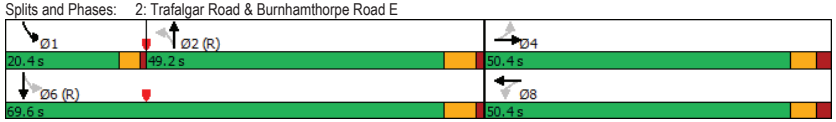
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	205	62	45	129	32	68	829	73	50	747	81
Future Volume (vph)	130	205	62	45	129	32	68	829	73	50	747	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.80	*0.80	1.00	*0.80	*0.80
Frt		0.965			0.970			0.988			0.985	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1781	0	1805	1786	0	1770	4197	0	1805	4178	0
Flt Permitted	0.531			0.286			0.264			0.203		
Satd. Flow (perm)	980	1781	0	543	1786	0	492	4197	0	386	4178	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			12			11			20	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	143	225	68	49	142	35	75	911	80	55	821	89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	143	293	0	49	177	0	75	991	0	55	910	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		7.0	20.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		26.0	26.0		11.0	26.0	
Total Split (s)	50.4	50.4		50.4	50.4		49.2	49.2		20.4	69.6	
Total Split (%)	42.0%	42.0%		42.0%	42.0%		41.0%	41.0%		17.0%	58.0%	
Maximum Green (s)	44.4	44.4		44.4	44.4		43.2	43.2		16.4	63.6	
Yellow Time (s)	3.7	3.7		3.7	3.7		4.6	4.6		3.0	4.6	
All-Red Time (s)	2.3	2.3		2.3	2.3		1.4	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	24.7	24.7		24.7	24.7		74.3	74.3		85.3	83.3	
Actuated g/C Ratio	0.21	0.21		0.21	0.21		0.62	0.62		0.71	0.69	
v/c Ratio	0.71	0.78		0.44	0.47		0.25	0.38		0.15	0.31	
Control Delay	62.6	56.6		52.4	41.9		15.3	12.4		7.4	7.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	62.6	56.6		52.4	41.9		15.3	12.4		7.4	7.9	
LOS	E	E		D	D		B	B		A	A	
Approach Delay		58.6			44.2			12.6			7.9	
Approach LOS		E			D			B			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 21.0 Intersection LOS: C
Intersection Capacity Utilization 76.2% ICU Level of Service D
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	143	293	49	177	75	991	55	910
v/c Ratio	0.71	0.78	0.44	0.47	0.25	0.38	0.15	0.31
Control Delay	62.6	56.6	52.4	41.9	15.3	12.4	7.4	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.6	56.6	52.4	41.9	15.3	12.4	7.4	7.9
Queue Length 50th (m)	33.2	66.0	10.7	36.2	9.1	54.0	3.6	32.2
Queue Length 95th (m)	52.9	90.0	22.3	53.9	24.3	82.2	9.6	50.4
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	362	667	200	668	304	2602	468	2907
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.44	0.24	0.26	0.25	0.38	0.12	0.31

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	205	62	45	129	32	68	829	73	50	747	81
Future Volume (veh/h)	130	205	62	45	129	32	68	829	73	50	747	81
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1846	1900	1900	1841	1900	1863	1770	1900	1900	1767	1900
Adj Flow Rate, veh/h	143	225	68	49	142	35	75	911	80	55	821	89
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	244	325	98	157	340	84	412	2417	212	483	2698	291
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	1.00	1.00	1.00	0.05	0.66	0.66
Sat Flow, veh/h	1191	1362	412	1103	1427	352	611	4172	365	1810	4077	440
Grp Volume(v), veh/h	143	0	293	49	0	177	75	618	373	55	568	342
Grp Sat Flow(s),veh/h/ln	1191	0	1773	1103	0	1779	611	1416	1705	1810	1414	1690
Q Serve(g_s), s	13.9	0.0	18.1	5.1	0.0	10.1	0.1	0.0	0.0	1.3	10.2	10.3
Cycle Q Clear(g_c), s	24.0	0.0	18.1	23.2	0.0	10.1	0.5	0.0	0.0	1.3	10.2	10.3
Prop In Lane	1.00		0.23	1.00		0.20	1.00		0.21	1.00		0.26
Lane Grp Cap(c), veh/h	244	0	423	157	0	424	412	1641	988	483	1871	1118
V/C Ratio(X)	0.59	0.00	0.69	0.31	0.00	0.42	0.18	0.38	0.38	0.11	0.30	0.31
Avail Cap(c_a), veh/h	400	0	656	302	0	658	412	1641	988	642	1871	1118
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.8	0.0	41.7	52.3	0.0	38.7	0.0	0.0	0.0	7.8	8.6	8.6
Incr Delay (d2), s/veh	2.2	0.0	2.0	1.1	0.0	0.7	1.0	0.7	1.1	0.1	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	9.1	1.6	0.0	5.0	0.1	0.2	0.3	0.7	4.1	5.0
LnGrp Delay(d),s/veh	51.0	0.0	43.7	53.4	0.0	39.3	1.0	0.7	1.1	7.9	9.0	9.3
LnGrp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		436			226			1066			965	
Approach Delay, s/veh		46.1			42.4			0.8			9.1	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	9.9	75.5		34.6		85.4		34.6
Change Period (Y+Rc), s	4.0	* 6		6.0		* 6		6.0
Max Green Setting (Gmax), s	16.4	* 43		44.4		* 64		44.4
Max Q Clear Time (g_c+I1), s	3.3	2.5		26.0		12.3		25.2
Green Ext Time (p_c), s	0.1	19.9		2.6		17.6		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	14.6
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

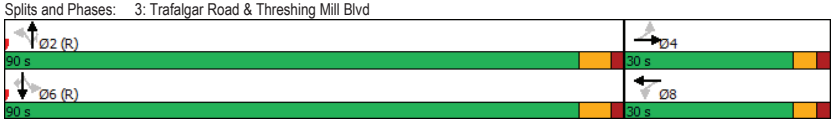
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	6	66	57	5	126	33	780	35	111	777	13
Future Volume (vph)	37	6	66	57	5	126	33	780	35	111	777	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.863			0.856				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3054	0	1410	2973	0	1770	4262	1404	1671	4262	1583
Flt Permitted	0.666			0.703			0.298			0.297		
Satd. Flow (perm)	1241	3054	0	1044	2973	0	555	4262	1404	523	4262	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		72			131				36			23
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		175.7			120.2			286.4			537.5	
Travel Time (s)		12.7			8.7			12.9			24.2	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Heavy Vehicles (%)	2%	2%	2%	28%	2%	4%	2%	7%	15%	8%	7%	2%
Adj. Flow (vph)	40	7	72	59	5	131	36	813	36	116	809	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	79	0	59	136	0	36	813	36	116	809	14
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		41.6	41.6	41.6	41.6	41.6	41.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0					0	0	0	0	0	0
Act Effct Green (s)	13.0	13.0		13.0	13.0		94.9	94.9	94.9	94.9	94.9	94.9
Actuated g/C Ratio	0.11	0.11		0.11	0.11		0.79	0.79	0.79	0.79	0.79	0.79
v/c Ratio	0.30	0.20		0.52	0.31		0.08	0.24	0.03	0.28	0.24	0.01
Control Delay	53.8	13.6		66.3	10.6		0.8	0.6	0.1	4.4	2.4	0.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.8	13.6		66.3	10.6		0.8	0.6	0.1	4.4	2.4	0.2
LOS	D	B		E	B		A	A	A	A	A	A
Approach Delay		27.1			27.4			0.6			2.6	
Approach LOS		C			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 13.2 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 5.4		Intersection LOS: A	
Intersection Capacity Utilization 66.0%		ICU Level of Service C	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 3: Trafalgar Road & Threshing Mill Blvd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	40	79	59	136	36	813	36	116	809	14
v/c Ratio	0.30	0.20	0.52	0.31	0.08	0.24	0.03	0.28	0.24	0.01
Control Delay	53.8	13.6	66.3	10.6	0.8	0.6	0.1	4.4	2.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.8	13.6	66.3	10.6	0.8	0.6	0.1	4.4	2.4	0.2
Queue Length 50th (m)	9.4	0.8	14.2	0.5	0.2	2.0	0.0	3.7	10.3	0.0
Queue Length 95th (m)	19.9	8.1	27.5	9.9	0.7	3.2	0.0	8.0	14.9	0.2
Internal Link Dist (m)		151.7		96.2		262.4			513.5	
Turn Bay Length (m)	25.0		25.0		75.0		45.0	65.0		45.0
Base Capacity (vph)	253	680	213	711	438	3371	1118	413	3371	1256
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.12	0.28	0.19	0.08	0.24	0.03	0.28	0.24	0.01

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	6	66	57	5	126	33	780	35	111	777	13
Future Volume (veh/h)	37	6	66	57	5	126	33	780	35	111	777	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1484	1828	1900	1863	1776	1652	1759	1776	1863
Adj Flow Rate, veh/h	40	7	72	59	5	131	36	812	36	116	809	14
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	2	2	2	28	2	4	2	7	15	8	7	2
Cap, veh/h	124	232	208	154	228	204	569	3273	1079	529	3273	1216
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	1.00	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1248	1770	1583	1047	1737	1554	663	4262	1404	611	4262	1583
Grp Volume(v), veh/h	40	7	72	59	5	131	36	812	36	116	809	14
Grp Sat Flow(s),veh/h/ln	1248	1770	1583	1047	1737	1554	663	1421	1404	611	1421	1583
Q Serve(g_s), s	3.8	0.4	5.0	6.5	0.3	9.6	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.4	0.4	5.0	11.5	0.3	9.6	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	124	232	208	154	228	204	569	3273	1079	529	3273	1216
V/C Ratio(X)	0.32	0.03	0.35	0.38	0.02	0.64	0.06	0.25	0.03	0.22	0.25	0.01
Avail Cap(c_a), veh/h	215	361	323	230	355	317	569	3273	1079	529	3273	1216
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	45.5	47.4	52.7	45.4	49.5	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.5	0.1	1.0	1.6	0.0	3.4	0.2	0.2	0.1	1.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.2	2.2	2.0	0.1	4.3	0.0	0.1	0.0	0.1	0.1	0.0
LnGrp Delay(d),s/veh	57.3	45.5	48.4	54.2	45.5	52.8	0.2	0.2	0.1	1.0	0.2	0.0
LnGrp LOS	E	D	D	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		119			195			884			939	
Approach Delay, s/veh		51.2			53.1			0.2			0.3	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		98.8		21.2		98.8		21.2
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		2.0		15.4		2.0		13.5
Green Ext Time (p_c), s		19.1		0.4		22.1		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	7.9
HCM 2010 LOS	A

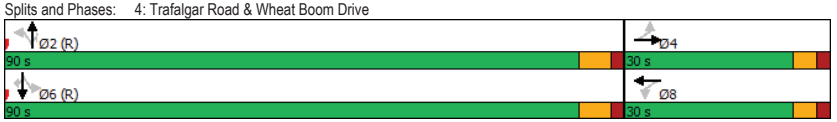
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	19	108	0	124	0	721	54	35	995	0
Future Volume (vph)	0	0	19	108	0	124	0	721	54	35	995	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3008	0	1327	2379	0	1863	4343	1292	1556	4262	1863
Flt Permitted				0.743						0.310		
Satd. Flow (perm)	1863	3008	0	1038	2379	0	1863	4343	1292	508	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		144			255				58			
Link Speed (k/h)		50			50			60			80	
Link Distance (m)		170.2			342.3			409.5			286.4	
Travel Time (s)		12.3			24.6			24.6			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Heavy Vehicles (%)	2%	2%	2%	36%	2%	29%	2%	5%	25%	16%	7%	2%
Adj. Flow (vph)	0	0	21	116	0	133	0	775	58	38	1070	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	0	116	133	0	0	775	58	38	1070	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0			
Pedestrian Calls (#/hr)	0	0					0	0	0			
Act Effct Green (s)		18.1		18.1	18.1			89.8	89.8	89.8	89.8	
Actuated g/C Ratio		0.15		0.15	0.15			0.75	0.75	0.75	0.75	
v/c Ratio		0.04		0.74	0.23			0.24	0.06	0.10	0.34	
Control Delay		0.1		75.1	0.9			5.3	1.6	4.9	4.5	
Queue Delay		0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay		0.1		75.1	0.9			5.3	1.6	4.9	4.5	
LOS		A		E	A			A	A	A	A	
Approach Delay		0.1			35.5			5.0			4.5	
Approach LOS		A			D			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 8.2		Intersection LOS: A	
Intersection Capacity Utilization 53.1%		ICU Level of Service A	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	21	116	133	775	58	38	1070
v/c Ratio	0.04	0.74	0.23	0.24	0.06	0.10	0.34
Control Delay	0.1	75.1	0.9	5.3	1.6	4.9	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.1	75.1	0.9	5.3	1.6	4.9	4.5
Queue Length 50th (m)	0.0	27.7	0.0	21.5	0.0	1.9	23.1
Queue Length 95th (m)	0.0	46.9	0.0	33.2	4.0	5.4	35.1
Internal Link Dist (m)	146.2		318.3	385.5			262.4
Turn Bay Length (m)		25.0			45.0	65.0	
Base Capacity (vph)	728	211	688	3251	981	380	3190
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.55	0.19	0.24	0.06	0.10	0.34

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	19	108	0	124	0	721	54	35	995	0
Future Volume (veh/h)	0	0	19	108	0	124	0	721	54	35	995	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1397	1473	1900	1863	1810	1520	1638	1776	1863
Adj Flow Rate, veh/h	0	0	21	116	0	133	0	775	58	38	1070	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Percent Heavy Veh, %	2	2	2	36	2	29	2	5	25	16	7	2
Cap, veh/h	60	257	230	199	203	182	60	3274	974	464	3213	1194
Arrive On Green	0.00	0.00	0.15	0.15	0.00	0.15	0.00	0.75	0.75	1.00	1.00	0.00
Sat Flow, veh/h	1252	1770	1583	1039	1399	1252	525	4343	1292	577	4262	1583
Grp Volume(v), veh/h	0	0	21	116	0	133	0	775	58	38	1070	0
Grp Sat Flow(s),veh/h/ln	1252	1770	1583	1039	1399	1252	525	1448	1292	577	1421	1583
Q Serve(g_s), s	0.0	0.0	1.4	13.1	0.0	12.2	0.0	6.4	1.4	0.6	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.4	14.4	0.0	12.2	0.0	6.4	1.4	7.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	257	230	199	203	182	60	3274	974	464	3213	1194
V/C Ratio(X)	0.00	0.00	0.09	0.58	0.00	0.73	0.00	0.24	0.06	0.08	0.33	0.00
Avail Cap(c_a), veh/h	134	361	323	260	286	256	60	3274	974	464	3213	1194
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.98	0.98	0.00
Uniform Delay (d), s/veh	0.0	0.0	44.4	50.7	0.0	49.0	0.0	4.4	3.8	0.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.2	2.7	0.0	6.3	0.0	0.2	0.1	0.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	3.9	0.0	4.5	0.0	2.6	0.5	0.1	0.1	0.0
LnGrp Delay(d),s/veh	0.0	0.0	44.6	53.4	0.0	55.4	0.0	4.6	3.9	0.6	0.3	0.0
LnGrp LOS			D	D		E		A	A	A	A	
Approach Vol, veh/h		21			249			833			1108	
Approach Delay, s/veh		44.6			54.5			4.5			0.3	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		97.1		22.9		97.1		22.9
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		8.4		3.4		9.0		16.4
Green Ext Time (p_c), s		8.3		0.1		13.6		1.0

Intersection Summary		
HCM 2010 Ctrl Delay		8.4
HCM 2010 LOS		A

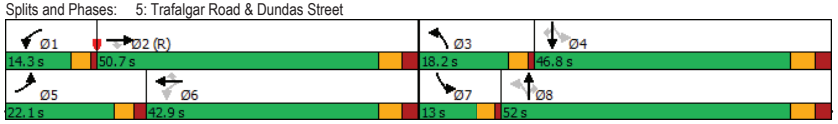
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	241	1693	233	185	1010	14	177	549	122	143	720	169
Future Volume (vph)	241	1693	233	185	1010	14	177	549	122	143	720	169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98	1.00			1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	4343	1538	1736	4343	1524
Flt Permitted	0.950			0.080			0.148			0.354		
Satd. Flow (perm)	3400	5085	1557	142	4715	1292	270	4343	1538	647	4343	1497
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			213			172			138			172
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	246	1728	238	189	1031	14	181	560	124	146	735	172
Shared Lane Traffic (%)												
Lane Group Flow (vph)	246	1728	238	189	1031	14	181	560	124	146	735	172
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5	16.5	11.0	16.5	16.5
Total Split (s)	22.1	50.7	50.7	14.3	42.9	42.9	18.2	52.0	52.0	13.0	46.8	46.8
Total Split (%)	17.0%	39.0%	39.0%	11.0%	33.0%	33.0%	14.0%	40.0%	40.0%	10.0%	36.0%	36.0%
Maximum Green (s)	17.1	44.3	44.3	10.3	36.5	36.5	14.2	45.5	45.5	9.0	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	15.1	49.2	49.2	69.7	50.2	50.2	48.9	33.8	33.8	40.8	29.3	29.3
Actuated g/C Ratio	0.12	0.38	0.38	0.54	0.39	0.39	0.38	0.26	0.26	0.31	0.23	0.23
v/c Ratio	0.62	0.90	0.33	0.68	0.57	0.02	0.71	0.50	0.25	0.53	0.75	0.37
Control Delay	61.6	46.2	6.9	66.4	23.8	0.1	43.0	41.8	5.3	34.4	51.9	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.6	46.2	6.9	66.4	23.8	0.1	43.0	41.8	5.3	34.4	51.9	7.6
LOS	E	D	A	E	C	A	D	D	A	C	D	A
Approach Delay		43.6			30.0			36.8			42.2	
Approach LOS		D			C			D			D	

Intersection Summary		
Area Type:	Other	
Cycle Length: 130		
Actuated Cycle Length: 130		
Offset: 18.2 (14%), Referenced to phase 2:EBT, Start of Green		
Natural Cycle: 80		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.90		
Intersection Signal Delay: 39.1	Intersection LOS: D	
Intersection Capacity Utilization 86.3%	ICU Level of Service E	
Analysis Period (min) 15		

* User Entered Value

Splits and Phases: 5: Trafalgar Road & Dundas Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	246	1728	238	189	1031	14	181	560	124	146	735	172
v/c Ratio	0.62	0.90	0.33	0.68	0.57	0.02	0.71	0.50	0.25	0.53	0.75	0.37
Control Delay	61.6	46.2	6.9	66.4	23.8	0.1	43.0	41.8	5.3	34.4	51.9	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.6	46.2	6.9	66.4	23.8	0.1	43.0	41.8	5.3	34.4	51.9	7.6
Queue Length 50th (m)	33.0	164.6	4.4	38.9	35.6	0.0	33.1	53.1	0.0	26.2	77.4	0.0
Queue Length 95th (m)	46.0	#207.8	24.0	#76.4	110.3	m0.0	47.6	63.2	11.6	39.2	89.6	17.8
Internal Link Dist (m)		530.9			391.5			307.2			385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Base Capacity (vph)	457	1922	721	280	1820	604	262	1520	628	278	1346	582
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.90	0.33	0.68	0.57	0.02	0.69	0.37	0.20	0.53	0.55	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	241	1693	233	185	1010	14	177	549	122	143	720	169
Future Volume (veh/h)	241	1693	233	185	1010	14	177	549	122	143	720	169
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1810	1827	1810	1792
Adj Flow Rate, veh/h	246	1728	238	189	1031	14	181	560	124	146	735	172
Adj No. of Lanes	2	3	1	1	3	1	1	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	311	2202	684	219	1949	532	265	1120	394	285	1014	353
Arrive On Green	0.09	0.43	0.43	0.08	0.41	0.41	0.09	0.26	0.26	0.07	0.23	0.23
Sat Flow, veh/h	3408	5085	1579	1691	4715	1288	1740	4343	1529	1740	4343	1514
Grp Volume(v), veh/h	246	1728	238	189	1031	14	181	560	124	146	735	172
Grp Sat Flow(s),veh/h/ln	1704	1695	1579	1691	1572	1288	1740	1448	1529	1740	1448	1514
Q Serve(g_s), s	9.2	37.9	13.1	8.3	21.3	0.8	10.0	14.3	8.5	8.3	20.3	12.8
Cycle Q Clear(g_c), s	9.2	37.9	13.1	8.3	21.3	0.8	10.0	14.3	8.5	8.3	20.3	12.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	311	2202	684	219	1949	532	265	1120	394	285	1014	353
V/C Ratio(X)	0.79	0.78	0.35	0.86	0.53	0.03	0.68	0.50	0.31	0.51	0.72	0.49
Avail Cap(c_a), veh/h	448	2202	684	219	1949	532	292	1520	535	285	1346	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.9	31.7	24.6	28.5	28.6	22.6	34.5	41.1	39.0	35.1	46.0	43.1
Incr Delay (d2), s/veh	6.8	2.9	1.4	28.2	0.6	0.1	6.2	0.4	0.5	1.8	1.5	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	18.4	6.0	5.6	9.4	0.3	5.2	5.7	3.6	4.1	8.2	5.5
LnGrp Delay(d),s/veh	64.7	34.6	26.0	56.7	29.3	22.7	40.7	41.5	39.5	36.9	47.5	44.3
LnGrp LOS	E	C	C	E	C	C	D	D	D	D	D	D
Approach Vol, veh/h		2212			1234			865			1053	
Approach Delay, s/veh		37.0			33.4			41.1			45.5	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	62.7	16.2	36.9	16.8	60.1	13.0	40.0
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	10.3	44.3	14.2	40.3	17.1	36.5	9.0	45.5
Max Q Clear Time (g_c+I1), s	10.3	39.9	12.0	22.3	11.2	23.3	10.3	16.3
Green Ext Time (p_c), s	0.0	4.2	0.2	7.3	0.7	9.7	0.0	6.6

Intersection Summary	
HCM 2010 Ctrl Delay	38.5
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	1911	32	134	1090	72	58	36	153	108	78	100
Future Volume (vph)	37	1911	32	134	1090	72	58	36	153	108	78	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00		0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.916	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3141	0
Flt Permitted	0.232			0.059			0.633			0.732		
Satd. Flow (perm)	423	4940	1470	110	4673	1281	1149	1900	1577	1374	3141	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			70			77			138		78	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	39	2033	34	143	1160	77	62	38	163	115	83	106
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	2033	34	143	1160	77	62	38	163	115	189	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	2	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	26.8	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	70.2	70.2	70.2	13.0	83.2	83.2	46.8	46.8	46.8	46.8	46.8	
Total Split (%)	54.0%	54.0%	54.0%	10.0%	64.0%	64.0%	36.0%	36.0%	36.0%	36.0%	36.0%	
Maximum Green (s)	63.4	63.4	63.4	9.0	76.4	76.4	39.4	39.4	39.4	39.4	39.4	
Yellow Time (s)	4.2	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.6	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.8	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	24.0	24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	63.5	63.5	63.5	79.2	76.4	76.4	39.4	39.4	39.4	39.4	39.4	
Actuated g/C Ratio	0.49	0.49	0.49	0.61	0.59	0.59	0.30	0.30	0.30	0.30	0.30	
v/c Ratio	0.19	0.84	0.05	0.80	0.42	0.10	0.18	0.07	0.28	0.28	0.19	
Control Delay	18.1	22.9	1.5	55.4	15.3	2.7	35.2	32.8	9.3	36.7	19.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	18.1	22.9	1.5	55.4	15.3	2.7	35.2	32.8	9.3	36.7	19.9	
LOS	B	C	A	E	B	A	D	C	A	D	B	
Approach Delay		22.4			18.7			18.8			26.3	
Approach LOS		C			B			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 9.1 (7%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 21.2		Intersection LOS: C	
Intersection Capacity Utilization 107.0%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 6: Postridge Drive & Dundas Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	39	2033	34	143	1160	77	62	38	163	115	189
v/c Ratio	0.19	0.84	0.05	0.80	0.42	0.10	0.18	0.07	0.28	0.28	0.19
Control Delay	18.1	22.9	1.5	55.4	15.3	2.7	35.2	32.8	9.3	36.7	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.1	22.9	1.5	55.4	15.3	2.7	35.2	32.8	9.3	36.7	19.9
Queue Length 50th (m)	3.2	70.2	0.3	21.1	59.7	0.0	12.3	7.3	4.8	23.6	11.4
Queue Length 95th (m)	m5.0	96.6	m0.5	#56.6	70.5	6.8	24.5	16.1	22.1	40.7	21.0
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	206	2414	754	181	2746	784	348	575	574	416	1006
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.84	0.05	0.79	0.42	0.10	0.18	0.07	0.28	0.28	0.19

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	1911	32	134	1090	72	58	36	153	108	78	100
Future Volume (veh/h)	37	1911	32	134	1090	72	58	36	153	108	78	100
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1825	1900
Adj Flow Rate, veh/h	39	2033	34	143	1160	77	62	38	163	115	83	106
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	254	2487	750	182	2746	770	347	576	481	397	525	466
Arrive On Green	0.50	0.50	0.50	0.05	0.59	0.59	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	439	4940	1489	1774	4673	1310	1160	1900	1586	1181	1734	1539
Grp Volume(v), veh/h	39	2033	34	143	1160	77	62	38	163	115	83	106
Grp Sat Flow(s),veh/h/ln	439	1647	1489	1774	1558	1310	1160	1900	1586	1181	1734	1539
Q Serve(g_s), s	6.9	45.1	1.5	4.9	17.7	3.3	5.5	1.8	10.4	10.0	4.6	6.7
Cycle Q Clear(g_c), s	13.7	45.1	1.5	4.9	17.7	3.3	12.2	1.8	10.4	11.8	4.6	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	254	2487	750	182	2746	770	347	576	481	397	525	466
V/C Ratio(X)	0.15	0.82	0.05	0.79	0.42	0.10	0.18	0.07	0.34	0.29	0.16	0.23
Avail Cap(c_a), veh/h	254	2487	750	210	2746	770	347	576	481	397	525	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	27.2	16.4	28.2	14.7	11.7	38.5	32.2	35.2	36.4	33.2	33.9
Incr Delay (d2), s/veh	1.3	3.1	0.1	15.8	0.5	0.3	1.1	0.2	1.9	1.8	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	21.2	0.6	3.5	7.6	1.3	1.9	1.0	4.8	3.5	2.3	3.0
LnGrp Delay(d),s/veh	22.7	30.4	16.5	44.0	15.2	12.0	39.6	32.4	37.1	38.3	33.8	35.0
LnGrp LOS	C	C	B	D	B	B	D	C	D	D	C	D
Approach Vol, veh/h		2106			1380			263			304	
Approach Delay, s/veh		30.0			18.0			37.0			35.9	
Approach LOS		C			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	11.0	72.2		46.8		83.2		46.8
Change Period (Y+Rc), s	4.0	6.8		* 7.4		6.8		* 7.4
Max Green Setting (Gmax), s	9.0	63.4		* 39		76.4		* 39
Max Q Clear Time (g_c+I1), s	6.9	47.1		14.2		19.7		13.8
Green Ext Time (p_c), s	0.1	13.7		1.4		14.8		2.0

Intersection Summary

HCM 2010 Ctrl Delay		26.8	
HCM 2010 LOS		C	

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	53	90	95	25	39	87
Future Volume (vph)	53	90	95	25	39	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.972		0.907	
Flt Protected		0.982			0.985	
Satd. Flow (prot)	0	1660	1736	0	1562	0
Flt Permitted		0.982			0.985	
Satd. Flow (perm)	0	1660	1736	0	1562	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		120.2	260.2		319.6	
Travel Time (s)		8.7	18.7		23.0	
Confl. Peds. (#/hr)					4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	25%	5%	8%	0%	8%	9%
Adj. Flow (vph)	60	102	108	28	44	99
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	162	136	0	143	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	53	90	95	25	39	87
Future Vol, veh/h	53	90	95	25	39	87
Conflicting Peds, #/hr	0	0	0	0	4	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	88	88	88	88	88	88
Heavy Vehicles, %	25	5	8	0	8	9
Mvmt Flow	60	102	108	28	44	99

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	136	0	-	0	348	122
Stage 1	-	-	-	-	122	-
Stage 2	-	-	-	-	226	-
Critical Hdwy	4.35	-	-	-	6.48	6.29
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.425	-	-	-	3.572	3.381
Pot Cap-1 Maneuver	1318	-	-	-	637	911
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	798	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1318	-	-	-	606	911
Mov Cap-2 Maneuver	-	-	-	-	606	-
Stage 1	-	-	-	-	846	-
Stage 2	-	-	-	-	798	-

Approach	EB	WB	SB
HCM Control Delay, s	2.9	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1318	-	-	-	788
HCM Lane V/C Ratio	0.046	-	-	-	0.182
HCM Control Delay (s)	7.9	0	-	-	10.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7

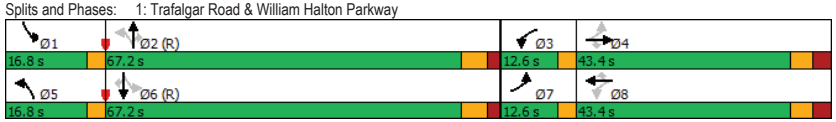
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	134	161	107	97	1368	17	105	1384	30	137	962	510
Future Volume (vph)	134	161	107	97	1368	17	105	1384	30	137	962	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4262	1553	1687	4515	1429
Flt Permitted	0.108			0.647			0.189			0.068		
Satd. Flow (perm)	192	3610	1583	1229	3374	1553	359	4262	1553	121	4515	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			110			77			78			297
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	138	166	110	100	1410	18	108	1427	31	141	992	526
Shared Lane Traffic (%)												
Lane Group Flow (vph)	138	166	110	100	1410	18	108	1427	31	141	992	526
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	12.6	43.4	43.4	12.6	43.4	43.4	16.8	67.2	67.2	16.8	67.2	67.2
Total Split (%)	9.0%	31.0%	31.0%	9.0%	31.0%	31.0%	12.0%	48.0%	48.0%	12.0%	48.0%	48.0%
Maximum Green (s)	9.6	36.4	36.4	9.6	36.4	36.4	13.8	60.3	60.3	13.8	60.3	60.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	50.6	37.0	37.0	49.4	36.4	36.4	75.7	62.5	62.5	80.1	64.8	64.8
Actuated g/C Ratio	0.36	0.26	0.26	0.35	0.26	0.26	0.54	0.45	0.45	0.57	0.46	0.46
v/c Ratio	0.80	0.17	0.22	0.21	1.61	0.04	0.37	0.75	0.04	0.71	0.47	0.64
Control Delay	63.4	40.6	8.0	30.0	312.9	0.2	17.2	35.7	0.1	45.2	27.1	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.4	40.6	8.0	30.0	312.9	0.2	17.2	35.7	0.1	45.2	27.1	15.8
LOS	E	D	A	C	F	A	B	D	A	D	C	B
Approach Delay		39.5			290.7			33.7			25.0	
Approach LOS		D			F			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 130			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.61			
Intersection Signal Delay: 107.4		Intersection LOS: F	
Intersection Capacity Utilization 97.8%		ICU Level of Service F	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 1: Trafalgar Road & William Halton Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	138	166	110	100	1410	18	108	1427	31	141	992	526
v/c Ratio	0.80	0.17	0.22	0.21	1.61	0.04	0.37	0.75	0.04	0.71	0.47	0.64
Control Delay	63.4	40.6	8.0	30.0	312.9	0.2	17.2	35.7	0.1	45.2	27.1	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.4	40.6	8.0	30.0	312.9	0.2	17.2	35.7	0.1	45.2	27.1	15.8
Queue Length 50th (m)	27.1	19.8	0.0	19.1	~309.1	0.0	13.5	143.8	0.0	21.5	81.3	49.4
Queue Length 95th (m)	#59.6	30.1	15.2	32.7	#354.0	0.0	23.0	169.2	0.0	45.7	100.0	93.9
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	172	953	498	478	877	460	346	1903	737	224	2089	820
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.17	0.22	0.21	1.61	0.04	0.31	0.75	0.04	0.63	0.47	0.64

Intersection Summary
~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	161	107	97	1368	17	105	1384	30	137	962	510
Future Volume (veh/h)	134	161	107	97	1368	17	105	1384	30	137	962	510
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	138	166	110	100	1410	18	108	1427	31	141	992	526
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	167	992	435	417	877	404	257	2007	731	221	2167	686
Arrive On Green	0.07	0.27	0.27	0.05	0.26	0.26	0.05	0.47	0.47	0.06	0.48	0.48
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4262	1553	1691	4515	1429
Grp Volume(v), veh/h	138	166	110	100	1410	18	108	1427	31	141	992	526
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1421	1553	1691	1505	1429
Q Serve(g_s), s	8.3	4.9	7.6	5.6	36.4	1.2	4.3	37.3	1.5	6.0	20.5	42.4
Cycle Q Clear(g_c), s	8.3	4.9	7.6	5.6	36.4	1.2	4.3	37.3	1.5	6.0	20.5	42.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	992	435	417	877	404	257	2007	731	221	2167	686
V/C Ratio(X)	0.82	0.17	0.25	0.24	1.61	0.04	0.42	0.71	0.04	0.64	0.46	0.77
Avail Cap(c_a), veh/h	167	992	435	444	877	404	346	2007	731	289	2167	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	38.6	39.6	34.9	51.8	38.8	19.0	29.5	20.0	25.3	24.3	29.9
Incr Delay (d2), s/veh	27.2	0.2	0.6	0.3	278.7	0.1	1.1	2.2	0.1	3.1	0.7	8.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	2.5	3.4	2.8	50.9	0.5	2.2	14.9	0.7	2.9	8.7	18.2
LnGrp Delay(d),s/veh	65.8	38.7	40.2	35.2	330.5	38.9	20.1	31.6	20.1	28.3	25.0	38.0
LnGrp LOS	E	D	D	D	F	D	C	C	C	C	C	D
Approach Vol, veh/h		414			1528			1566			1659	
Approach Delay, s/veh		48.2			307.7			30.6			29.4	
Approach LOS		D			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.2	72.8	10.5	45.5	9.9	74.1	12.6	43.4
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	13.8	* 60	9.6	36.4	13.8	* 60	9.6	36.4
Max Q Clear Time (g_c+I1), s	8.0	39.3	7.6	9.6	6.3	44.4	10.3	38.4
Green Ext Time (p_c), s	0.2	16.8	0.1	3.2	0.2	12.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	113.6
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

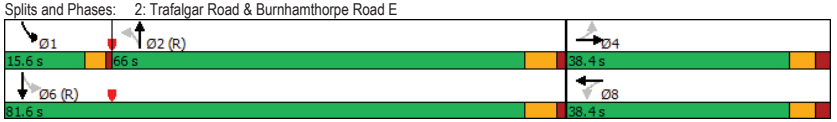
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	180	53	67	202	17	113	1119	70	17	890	155
Future Volume (vph)	86	180	53	67	202	17	113	1119	70	17	890	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.80	*0.80	1.00	*0.80	*0.80
Frt		0.966			0.988			0.991			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1784	0	1805	1810	0	1770	4203	0	1805	4158	0
Flt Permitted	0.353			0.317			0.199			0.134		
Satd. Flow (perm)	651	1784	0	602	1810	0	371	4203	0	255	4158	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			4			10			45	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	95	198	58	74	222	19	124	1230	77	19	978	170
Shared Lane Traffic (%)												
Lane Group Flow (vph)	95	256	0	74	241	0	124	1307	0	19	1148	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		7.0	20.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		26.0	26.0		11.0	26.0	
Total Split (s)	38.4	38.4		38.4	38.4		66.0	66.0		15.6	81.6	
Total Split (%)	32.0%	32.0%		32.0%	32.0%		55.0%	55.0%		13.0%	68.0%	
Maximum Green (s)	32.4	32.4		32.4	32.4		60.0	60.0		11.6	75.6	
Yellow Time (s)	3.7	3.7		3.7	3.7		4.6	4.6		3.0	4.6	
All-Red Time (s)	2.3	2.3		2.3	2.3		1.4	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	21.8	21.8		21.8	21.8		81.8	81.8		88.2	86.2	
Actuated g/C Ratio	0.18	0.18		0.18	0.18		0.68	0.68		0.74	0.72	
v/c Ratio	0.81	0.77		0.68	0.73		0.49	0.46		0.07	0.38	
Control Delay	89.3	59.2		74.6	57.8		22.5	11.4		6.1	7.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	89.3	59.2		74.6	57.8		22.5	11.4		6.1	7.2	
LOS	F	E		E	E		C	B		A	A	
Approach Delay		67.4			61.7			12.4			7.2	
Approach LOS		E			E			B			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 21.2 Intersection LOS: C
Intersection Capacity Utilization 78.3% ICU Level of Service D
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	95	256	74	241	124	1307	19	1148
v/c Ratio	0.81	0.77	0.68	0.73	0.49	0.46	0.07	0.38
Control Delay	89.3	59.2	74.6	57.8	22.5	11.4	6.1	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.3	59.2	74.6	57.8	22.5	11.4	6.1	7.2
Queue Length 50th (m)	22.8	58.2	17.3	56.0	14.1	60.0	1.1	38.9
Queue Length 95th (m)	#44.3	81.9	33.5	78.7	49.0	113.7	4.0	59.7
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	175	490	162	491	252	2869	337	3000
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.52	0.46	0.49	0.49	0.46	0.06	0.38

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	180	53	67	202	17	113	1119	70	17	890	155
Future Volume (veh/h)	86	180	53	67	202	17	113	1119	70	17	890	155
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1846	1900	1900	1832	1900	1863	1767	1900	1900	1771	1900
Adj Flow Rate, veh/h	95	198	58	74	222	19	124	1230	77	19	978	170
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	182	312	91	171	379	32	333	2618	164	371	2573	446
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	1.00	1.00	1.00	0.03	0.67	0.67
Sat Flow, veh/h	1123	1373	402	1141	1665	142	488	4279	268	1810	3825	663
Grp Volume(v), veh/h	95	0	256	74	0	241	124	813	494	19	724	424
Grp Sat Flow(s),veh/h/ln	1123	0	1775	1141	0	1807	488	1414	1720	1810	1417	1654
Q Serve(g_s), s	9.9	0.0	15.6	7.5	0.0	14.3	4.4	0.0	0.0	0.4	13.5	13.5
Cycle Q Clear(g_c), s	24.1	0.0	15.6	23.1	0.0	14.3	10.7	0.0	0.0	0.4	13.5	13.5
Prop In Lane	1.00		0.23	1.00		0.08	1.00		0.16	1.00		0.40
Lane Grp Cap(c), veh/h	182	0	404	171	0	411	333	1730	1052	371	1906	1113
V/C Ratio(X)	0.52	0.00	0.63	0.43	0.00	0.59	0.37	0.47	0.47	0.05	0.38	0.38
Avail Cap(c_a), veh/h	230	0	479	220	0	488	333	1730	1052	497	1906	1113
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.1	0.0	41.9	52.3	0.0	41.3	0.5	0.0	0.0	7.2	8.6	8.6
Incr Delay (d2), s/veh	2.3	0.0	2.1	1.7	0.0	1.3	3.2	0.9	1.5	0.1	0.6	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	7.9	2.4	0.0	7.2	0.8	0.2	0.4	0.2	5.4	6.4
LnGrp Delay(d),s/veh	54.4	0.0	43.9	54.0	0.0	42.7	3.6	0.9	1.5	7.3	9.2	9.6
LnGrp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		351			315			1431			1167	
Approach Delay, s/veh		46.8			45.3			1.4			9.3	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	7.3	79.4		33.3		86.7		33.3
Change Period (Y+Rc), s	4.0	* 6		6.0		* 6		6.0
Max Green Setting (Gmax), s	11.6	* 60		32.4		* 76		32.4
Max Q Clear Time (g_c+I1), s	2.4	12.7		26.1		15.5		25.1
Green Ext Time (p_c), s	0.0	31.3		1.1		25.9		1.1

Intersection Summary

HCM 2010 Ctrl Delay		13.3	
HCM 2010 LOS		B	

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

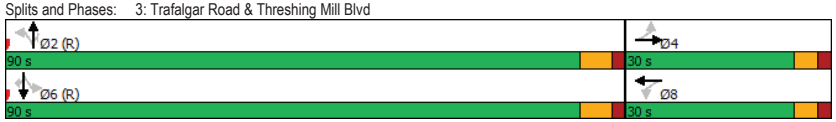
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	0	51	46	30	217	63	1066	62	79	900	34
Future Volume (vph)	21	0	51	46	30	217	63	1066	62	79	900	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.869				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3008	0	1410	3024	0	1770	4262	1404	1671	4262	1583
Flt Permitted	0.427			0.719			0.256			0.205		
Satd. Flow (perm)	795	3008	0	1067	3024	0	477	4262	1404	361	4262	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		186			133				65			37
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		175.7			120.2			286.4			537.5	
Travel Time (s)		12.7			8.7			12.9			24.2	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Heavy Vehicles (%)	2%	2%	2%	28%	2%	4%	2%	7%	15%	8%	7%	2%
Adj. Flow (vph)	23	0	55	48	33	226	68	1110	65	82	938	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	55	0	48	259	0	68	1110	65	82	938	37
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		41.6	41.6	41.6	41.6	41.6	41.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0					0	0	0	0	0	0
Act Effct Green (s)	12.0	12.0		12.0	12.0		95.9	95.9	95.9	95.9	95.9	95.9
Actuated g/C Ratio	0.10	0.10		0.10	0.10		0.80	0.80	0.80	0.80	0.80	0.80
v/c Ratio	0.29	0.12		0.45	0.62		0.18	0.33	0.06	0.28	0.28	0.03
Control Delay	58.7	0.5		64.0	31.1		2.7	1.8	0.2	5.4	2.7	0.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	0.5		64.0	31.1		2.7	1.8	0.2	5.4	2.7	0.7
LOS	E	A		E	C		A	A	A	A	A	A
Approach Delay		17.7			36.3			1.8			2.8	
Approach LOS		B			D			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 20.4 (17%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 6.6		Intersection LOS: A	
Intersection Capacity Utilization 69.9%		ICU Level of Service C	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 3: Trafalgar Road & Threshing Mill Blvd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	23	55	48	259	68	1110	65	82	938	37
v/c Ratio	0.29	0.12	0.45	0.62	0.18	0.33	0.06	0.28	0.28	0.03
Control Delay	58.7	0.5	64.0	31.1	2.7	1.8	0.2	5.4	2.7	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	0.5	64.0	31.1	2.7	1.8	0.2	5.4	2.7	0.7
Queue Length 50th (m)	5.4	0.0	11.6	15.8	1.4	9.5	0.2	3.4	16.0	0.0
Queue Length 95th (m)	13.9	0.0	23.7	29.0	3.7	15.4	0.0	6.9	19.0	1.2
Internal Link Dist (m)		151.7		96.2		262.4			513.5	
Turn Bay Length (m)	25.0		25.0		75.0		45.0	65.0		45.0
Base Capacity (vph)	162	762	217	723	381	3406	1135	288	3406	1272
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.07	0.22	0.36	0.18	0.33	0.06	0.28	0.28	0.03

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	0	51	46	30	217	63	1066	62	79	900	34
Future Volume (veh/h)	21	0	51	46	30	217	63	1066	62	79	900	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1484	1831	1900	1863	1776	1652	1759	1776	1863
Adj Flow Rate, veh/h	23	0	55	48	33	226	68	1110	65	82	938	37
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	2	2	2	28	2	4	2	7	15	8	7	2
Cap, veh/h	102	314	281	218	309	276	382	3076	1014	384	3076	1143
Arrive On Green	0.18	0.00	0.18	0.18	0.18	0.18	1.00	1.00	1.00	0.24	0.24	0.24
Sat Flow, veh/h	1116	1770	1583	1070	1740	1557	595	4262	1404	449	4262	1583
Grp Volume(v), veh/h	23	0	55	48	33	226	68	1110	65	82	938	37
Grp Sat Flow(s),veh/h/ln	1116	1770	1583	1070	1740	1557	595	1421	1404	449	1421	1583
Q Serve(g_s), s	2.4	0.0	3.6	4.8	1.9	16.8	4.1	0.0	0.0	17.8	21.7	2.2
Cycle Q Clear(g_c), s	19.2	0.0	3.6	8.4	1.9	16.8	25.8	0.0	0.0	17.8	21.7	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	102	314	281	218	309	276	382	3076	1014	384	3076	1143
V/C Ratio(X)	0.23	0.00	0.20	0.22	0.11	0.82	0.18	0.36	0.06	0.21	0.30	0.03
Avail Cap(c_a), veh/h	132	361	323	247	355	318	382	3076	1014	384	3076	1143
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.7	0.0	42.1	45.6	41.4	47.5	3.2	0.0	0.0	19.5	21.0	13.5
Incr Delay (d2), s/veh	1.1	0.0	0.3	0.5	0.2	13.8	1.0	0.3	0.1	1.3	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.6	1.5	0.9	8.3	0.7	0.1	0.0	2.4	8.6	1.0
LnGrp Delay(d),s/veh	57.8	0.0	42.4	46.1	41.5	61.3	4.2	0.3	0.1	20.8	21.2	13.6
LnGrp LOS	E		D	D	D	E	A	A	A	C	C	B
Approach Vol, veh/h		78			307			1243			1057	
Approach Delay, s/veh		47.0			56.8			0.5			20.9	
Approach LOS		D			E			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		93.2		26.8		93.2		26.8
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		27.8		21.2		23.7		18.8
Green Ext Time (p_c), s		28.2		0.1		24.5		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	16.3
HCM 2010 LOS	B

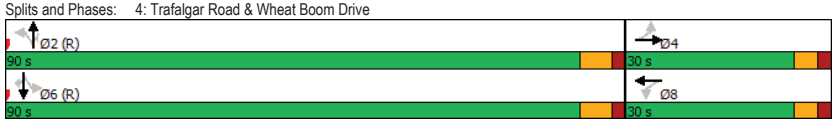
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	14	113	0	148	0	1038	133	108	928	0
Future Volume (vph)	0	0	14	113	0	148	0	1038	133	108	928	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3008	0	1327	2379	0	1863	4343	1292	1556	4262	1863
Flt Permitted				0.747						0.198		
Satd. Flow (perm)	1863	3008	0	1044	2379	0	1863	4343	1292	324	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		165			131				143			
Link Speed (k/h)		50			50			60			80	
Link Distance (m)		170.2			342.3			409.5			286.4	
Travel Time (s)		12.3			24.6			24.6			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Heavy Vehicles (%)	2%	2%	2%	36%	2%	29%	2%	5%	25%	16%	7%	2%
Adj. Flow (vph)	0	0	15	122	0	159	0	1116	143	116	998	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	122	159	0	0	1116	143	116	998	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0			
Pedestrian Calls (#/hr)	0	0					0	0	0			
Act Effct Green (s)		18.5		18.5	18.5			89.4	89.4	89.4	89.4	
Actuated g/C Ratio		0.15		0.15	0.15			0.74	0.74	0.74	0.74	
v/c Ratio		0.02		0.76	0.33			0.34	0.14	0.48	0.31	
Control Delay		0.1		75.9	12.5			6.1	1.3	12.6	4.1	
Queue Delay		0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay		0.1		75.9	12.5			6.1	1.3	12.6	4.1	
LOS		A		E	B			A	A	B	A	
Approach Delay		0.1			40.0			5.5			5.0	
Approach LOS		A			D			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 13.2 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 8.9		Intersection LOS: A	
Intersection Capacity Utilization 65.2%		ICU Level of Service C	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	15	122	159	1116	143	116	998
v/c Ratio	0.02	0.76	0.33	0.34	0.14	0.48	0.31
Control Delay	0.1	75.9	12.5	6.1	1.3	12.6	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.1	75.9	12.5	6.1	1.3	12.6	4.1
Queue Length 50th (m)	0.0	29.1	3.1	35.2	0.0	6.3	20.5
Queue Length 95th (m)	0.0	49.2	12.6	51.1	6.0	20.8	25.9
Internal Link Dist (m)	146.2		318.3	385.5			262.4
Turn Bay Length (m)		25.0			45.0	65.0	
Base Capacity (vph)	745	213	589	3235	998	241	3175
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.57	0.27	0.34	0.14	0.48	0.31

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	14	113	0	148	0	1038	133	108	928	0
Future Volume (veh/h)	0	0	14	113	0	148	0	1038	133	108	928	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1397	1473	1900	1863	1810	1520	1638	1776	1863
Adj Flow Rate, veh/h	0	0	15	122	0	159	0	1116	143	116	998	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Percent Heavy Veh, %	2	2	2	36	2	29	2	5	25	16	7	2
Cap, veh/h	60	265	237	208	209	187	60	3255	968	316	3194	1187
Arrive On Green	0.00	0.00	0.15	0.15	0.00	0.15	0.00	0.75	0.75	1.00	1.00	0.00
Sat Flow, veh/h	1222	1770	1583	1045	1399	1252	562	4343	1292	386	4262	1583
Grp Volume(v), veh/h	0	0	15	122	0	159	0	1116	143	116	998	0
Grp Sat Flow(s),veh/h/ln	1222	1770	1583	1045	1399	1252	562	1448	1292	386	1421	1583
Q Serve(g_s), s	0.0	0.0	1.0	13.6	0.0	14.8	0.0	10.4	3.7	7.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.0	14.6	0.0	14.8	0.0	10.4	3.7	17.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	265	237	208	209	187	60	3255	968	316	3194	1187
V/C Ratio(X)	0.00	0.00	0.06	0.59	0.00	0.85	0.00	0.34	0.15	0.37	0.31	0.00
Avail Cap(c_a), veh/h	127	361	323	265	286	256	60	3255	968	316	3194	1187
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	0.0	0.0	43.8	50.1	0.0	49.7	0.0	5.1	4.2	1.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	2.6	0.0	17.5	0.0	0.3	0.3	3.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.4	4.1	0.0	6.0	0.0	4.2	1.4	1.0	0.1	0.0
LnGrp Delay(d),s/veh	0.0	0.0	43.9	52.7	0.0	67.2	0.0	5.4	4.6	4.2	0.2	0.0
LnGrp LOS			D	D		E		A	A	A	A	
Approach Vol, veh/h		15			281			1259			1114	
Approach Delay, s/veh		43.9			60.9			5.3			0.7	
Approach LOS		D			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		96.5		23.5		96.5		23.5
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		12.4		3.0		19.4		16.8
Green Ext Time (p_c), s		14.9		0.0		16.0		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	9.4
HCM 2010 LOS	A

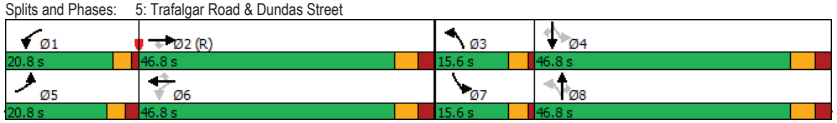
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	304	1490	235	225	1959	25	292	869	242	146	603	279
Future Volume (vph)	304	1490	235	225	1959	25	292	869	242	146	603	279
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98	1.00			1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	4343	1538	1736	4343	1524
Flt Permitted	0.950			0.086			0.267			0.129		
Satd. Flow (perm)	3400	5085	1557	153	4715	1292	487	4343	1538	236	4343	1497
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			234			105			244			276
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	310	1520	240	230	1999	26	298	887	247	149	615	285
Shared Lane Traffic (%)												
Lane Group Flow (vph)	310	1520	240	230	1999	26	298	887	247	149	615	285
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5	16.5	11.0	16.5	16.5
Total Split (s)	20.8	46.8	46.8	20.8	46.8	46.8	15.6	46.8	46.8	15.6	46.8	46.8
Total Split (%)	16.0%	36.0%	36.0%	16.0%	36.0%	36.0%	12.0%	36.0%	36.0%	12.0%	36.0%	36.0%
Maximum Green (s)	15.8	40.4	40.4	16.8	40.4	40.4	11.6	40.3	40.3	11.6	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	16.2	46.5	46.5	66.0	46.4	46.4	48.3	34.2	34.2	47.6	33.9	33.9
Actuated g/C Ratio	0.12	0.36	0.36	0.51	0.36	0.36	0.37	0.26	0.26	0.37	0.26	0.26
v/c Ratio	0.73	0.84	0.34	0.82	1.19	0.05	1.02	0.78	0.42	0.69	0.54	0.48
Control Delay	65.5	44.4	5.9	66.0	119.7	0.2	90.5	49.1	6.6	42.6	42.7	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.5	44.4	5.9	66.0	119.7	0.2	90.5	49.1	6.6	42.6	42.7	7.3
LOS	E	D	A	E	F	A	F	D	A	D	D	A
Approach Delay		43.1			112.8			50.4			33.1	
Approach LOS		D			F			D			C	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 40.3 (31%), Referenced to phase 2:EBT, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.19
Intersection Signal Delay: 66.2 Intersection LOS: E
Intersection Capacity Utilization 95.2% ICU Level of Service F
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 5: Trafalgar Road & Dundas Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	310	1520	240	230	1999	26	298	887	247	149	615	285
v/c Ratio	0.73	0.84	0.34	0.82	1.19	0.05	1.02	0.78	0.42	0.69	0.54	0.48
Control Delay	65.5	44.4	5.9	66.0	119.7	0.2	90.5	49.1	6.6	42.6	42.7	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.5	44.4	5.9	66.0	119.7	0.2	90.5	49.1	6.6	42.6	42.7	7.3
Queue Length 50th (m)	41.5	143.2	1.1	52.9	~240.8	0.0	~58.3	92.2	0.6	25.8	59.2	1.8
Queue Length 95th (m)	#59.2	#180.7	20.5	m59.0	m#282.9	m0.0	#106.2	104.8	20.1	40.2	69.9	23.2
Internal Link Dist (m)		530.9			391.5			307.2			385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Base Capacity (vph)	437	1817	706	291	1684	528	292	1346	645	220	1346	654
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.84	0.34	0.79	1.19	0.05	1.02	0.66	0.38	0.68	0.46	0.44

Intersection Summary

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	304	1490	235	225	1959	25	292	869	242	146	603	279
Future Volume (veh/h)	304	1490	235	225	1959	25	292	869	242	146	603	279
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1810	1827	1810	1792
Adj Flow Rate, veh/h	310	1520	240	230	1999	26	298	887	247	149	615	285
Adj No. of Lanes	2	3	1	1	3	1	1	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	367	2022	628	261	1803	493	288	1143	402	228	1095	382
Arrive On Green	0.11	0.40	0.40	0.10	0.38	0.38	0.09	0.26	0.26	0.08	0.25	0.25
Sat Flow, veh/h	3408	5085	1579	1691	4715	1288	1740	4343	1529	1740	4343	1515
Grp Volume(v), veh/h	310	1520	240	230	1999	26	298	887	247	149	615	285
Grp Sat Flow(s),veh/h/ln	1704	1695	1579	1691	1572	1288	1740	1448	1529	1740	1448	1515
Q Serve(g_s), s	11.6	33.4	14.0	10.6	49.7	1.7	11.6	24.6	18.5	8.2	16.0	22.5
Cycle Q Clear(g_c), s	11.6	33.4	14.0	10.6	49.7	1.7	11.6	24.6	18.5	8.2	16.0	22.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	367	2022	628	261	1803	493	288	1143	402	228	1095	382
V/C Ratio(X)	0.85	0.75	0.38	0.88	1.11	0.05	1.03	0.78	0.61	0.65	0.56	0.75
Avail Cap(c_a), veh/h	414	2022	628	310	1803	493	288	1346	474	246	1346	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.9	33.6	27.8	28.2	40.1	25.3	42.0	44.4	42.1	34.8	42.3	44.8
Incr Delay (d2), s/veh	14.0	2.6	1.8	22.3	57.5	0.1	61.8	2.6	2.1	6.0	0.5	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	16.1	6.4	6.5	31.1	0.6	12.6	10.1	8.1	4.3	6.5	10.0
LnGrp Delay(d),s/veh	70.9	36.3	29.6	50.5	97.6	25.4	103.8	47.0	44.1	40.8	42.9	50.3
LnGrp LOS	E	D	C	D	F	C	F	D	D	D	D	D
Approach Vol, veh/h		2070			2255			1432			1049	
Approach Delay, s/veh		40.7			92.0			58.3			44.6	
Approach LOS		D			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	58.1	15.6	39.3	19.0	56.1	14.2	40.7
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	16.8	40.4	11.6	40.3	15.8	40.4	11.6	40.3
Max Q Clear Time (g_c+I1), s	12.6	35.4	13.6	24.5	13.6	51.7	10.2	26.6
Green Ext Time (p_c), s	0.4	4.8	0.0	6.5	0.4	0.0	0.1	7.6

Intersection Summary	
HCM 2010 Ctrl Delay	62.0
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	1537	64	276	2133	135	119	85	145	99	59	47
Future Volume (vph)	70	1537	64	276	2133	135	119	85	145	99	59	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor			0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.934	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3217	0
Flt Permitted	0.076			0.071			0.681			0.699		
Satd. Flow (perm)	139	4940	1470	132	4673	1281	1236	1900	1577	1313	3217	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			104			111			154		50	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	74	1635	68	294	2269	144	127	90	154	105	63	50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	1635	68	294	2269	144	127	90	154	105	113	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	11.0	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	11.7	57.2	57.2	26.0	71.5	71.5	46.8	46.8	46.8	46.8	46.8	
Total Split (%)	9.0%	44.0%	44.0%	20.0%	55.0%	55.0%	36.0%	36.0%	36.0%	36.0%	36.0%	
Maximum Green (s)	7.7	50.4	50.4	22.0	64.7	64.7	39.4	39.4	39.4	39.4	39.4	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)		24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	62.8	52.6	52.6	79.2	67.2	67.2	39.4	39.4	39.4	39.4	39.4	
Actuated g/C Ratio	0.48	0.40	0.40	0.61	0.52	0.52	0.30	0.30	0.30	0.30	0.30	
v/c Ratio	0.47	0.82	0.10	0.89	0.94	0.20	0.34	0.16	0.26	0.26	0.11	
Control Delay	35.3	28.0	4.5	63.8	39.2	5.9	38.4	34.1	6.2	36.6	18.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	35.3	28.0	4.5	63.8	39.2	5.9	38.4	34.1	6.2	36.6	18.9	
LOS	D	C	A	E	D	A	D	C	A	D	B	
Approach Delay		27.4			40.1			24.0			27.4	
Approach LOS		C			D			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 36.4 (28%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 33.9		Intersection LOS: C	
Intersection Capacity Utilization 94.7%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 6: Postridge Drive & Dundas Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	74	1635	68	294	2269	144	127	90	154	105	113
v/c Ratio	0.47	0.82	0.10	0.89	0.94	0.20	0.34	0.16	0.26	0.26	0.11
Control Delay	35.3	28.0	4.5	63.8	39.2	5.9	38.4	34.1	6.2	36.6	18.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.3	28.0	4.5	63.8	39.2	5.9	38.4	34.1	6.2	36.6	18.9
Queue Length 50th (m)	10.6	68.9	0.7	59.8	213.0	4.5	26.6	17.8	0.0	21.5	6.3
Queue Length 95th (m)	m17.5	91.4	m2.9	#106.4	#256.5	16.2	45.7	31.8	16.1	38.0	13.9
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	161	1998	656	357	2414	715	374	575	585	397	1009
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.82	0.10	0.82	0.94	0.20	0.34	0.16	0.26	0.26	0.11

Intersection Summary
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	1537	64	276	2133	135	119	85	145	99	59	47
Future Volume (veh/h)	70	1537	64	276	2133	135	119	85	145	99	59	47
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1829	1900
Adj Flow Rate, veh/h	74	1635	68	294	2269	144	127	90	154	105	63	50
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	148	2120	639	324	2368	664	399	576	481	360	585	418
Arrive On Green	0.05	0.43	0.43	0.13	0.51	0.51	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1740	4940	1488	1774	4673	1310	1242	1900	1586	1136	1930	1380
Grp Volume(v), veh/h	74	1635	68	294	2269	144	127	90	154	105	56	57
Grp Sat Flow(s),veh/h/ln	1740	1647	1488	1774	1558	1310	1242	1900	1586	1136	1737	1572
Q Serve(g_s), s	3.0	36.7	3.6	14.0	60.5	7.9	10.7	4.5	9.7	9.7	3.0	3.4
Cycle Q Clear(g_c), s	3.0	36.7	3.6	14.0	60.5	7.9	14.1	4.5	9.7	14.2	3.0	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.88
Lane Grp Cap(c), veh/h	148	2120	639	324	2368	664	399	576	481	360	527	477
V/C Ratio(X)	0.50	0.77	0.11	0.91	0.96	0.22	0.32	0.16	0.32	0.29	0.11	0.12
Avail Cap(c_a), veh/h	164	2120	639	398	2368	664	399	576	481	360	527	477
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.2	31.7	22.2	33.4	30.7	17.8	37.9	33.1	35.0	38.3	32.6	32.8
Incr Delay (d2), s/veh	2.6	2.8	0.3	21.3	11.0	0.7	2.1	0.6	1.8	2.0	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	17.2	1.5	12.3	28.2	3.0	3.9	2.5	4.5	3.2	1.5	1.5
LnGrp Delay(d),s/veh	32.7	34.4	22.5	54.7	41.7	18.5	39.9	33.7	36.7	40.4	33.0	33.3
LnGrp LOS	C	C	C	D	D	B	D	C	D	D	C	C
Approach Vol, veh/h		1777			2707			371			218	
Approach Delay, s/veh		33.9			41.9			37.1			36.6	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	20.6	62.6		46.8	10.5	72.7		46.8
Change Period (Y+Rc), s	4.0	6.8		* 7.4	4.0	6.8		* 7.4
Max Green Setting (Gmax), s	22.0	50.4		* 39	7.7	64.7		* 39
Max Q Clear Time (g_c+I1), s	16.0	38.7		16.1	5.0	62.5		16.2
Green Ext Time (p_c), s	0.6	9.0		2.0	0.0	2.1		1.3

Intersection Summary			
HCM 2010 Ctrl Delay		38.5	
HCM 2010 LOS		D	

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	86	93	223	29	48	109
Future Volume (vph)	86	93	223	29	48	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.984		0.906	
Flt Protected		0.977			0.985	
Satd. Flow (prot)	0	1620	1746	0	1560	0
Flt Permitted		0.977			0.985	
Satd. Flow (perm)	0	1620	1746	0	1560	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		120.2	260.2		319.6	
Travel Time (s)		8.7	18.7		23.0	
Confl. Peds. (#/hr)					4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	25%	5%	8%	0%	8%	9%
Adj. Flow (vph)	98	106	253	33	55	124
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	204	286	0	179	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	42.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	86	93	223	29	48	109
Future Vol, veh/h	86	93	223	29	48	109
Conflicting Peds, #/hr	0	0	0	0	4	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	88	88	88	88	88	88
Heavy Vehicles, %	25	5	8	0	8	9
Mvmt Flow	98	106	253	33	55	124

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	286	0	-	0	576	270
Stage 1	-	-	-	-	270	-
Stage 2	-	-	-	-	306	-
Critical Hdwy	4.35	-	-	-	6.48	6.29
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.425	-	-	-	3.572	3.381
Pot Cap-1 Maneuver	1155	-	-	-	469	752
Stage 1	-	-	-	-	762	-
Stage 2	-	-	-	-	733	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1155	-	-	-	427	752
Mov Cap-2 Maneuver	-	-	-	-	427	-
Stage 1	-	-	-	-	693	-
Stage 2	-	-	-	-	733	-

Approach	EB	WB	SB
HCM Control Delay, s	4	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1155	-	-	-	610
HCM Lane V/C Ratio	0.085	-	-	-	0.292
HCM Control Delay (s)	8.4	0	-	-	13.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	1.2

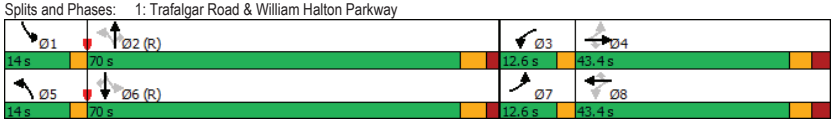
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	338	611	210	161	971	46	382	1477	96	256	999	142
Future Volume (vph)	338	611	210	161	971	46	382	1477	96	256	999	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4262	1553	1687	4515	1429
Flt Permitted	0.110			0.227			0.167			0.063		
Satd. Flow (perm)	195	3610	1583	431	3374	1553	317	4262	1553	112	4515	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			208			77			78			146
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	348	630	216	166	1001	47	394	1523	99	264	1030	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	348	630	216	166	1001	47	394	1523	99	264	1030	146
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	12.6	43.4	43.4	12.6	43.4	43.4	14.0	70.0	70.0	14.0	70.0	70.0
Total Split (%)	9.0%	31.0%	31.0%	9.0%	31.0%	31.0%	10.0%	50.0%	50.0%	10.0%	50.0%	50.0%
Maximum Green (s)	9.6	36.4	36.4	9.6	36.4	36.4	11.0	63.1	63.1	11.0	63.1	63.1
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	50.0	36.4	36.4	50.0	36.4	36.4	78.0	63.1	63.1	78.0	63.1	63.1
Actuated g/C Ratio	0.36	0.26	0.26	0.36	0.26	0.26	0.56	0.45	0.45	0.56	0.45	0.45
v/c Ratio	2.04	0.67	0.38	0.67	1.14	0.10	1.34	0.79	0.13	1.42	0.51	0.20
Control Delay	508.1	50.6	8.0	45.2	123.4	2.9	196.9	36.7	7.2	247.5	28.5	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	508.1	50.6	8.0	45.2	123.4	2.9	196.9	36.7	7.2	247.5	28.5	4.0
LOS	F	D	A	D	F	A	F	D	A	F	C	A
Approach Delay		176.2			108.1			66.6			66.1	
Approach LOS		F			F			E			E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 2.04			
Intersection Signal Delay: 97.4		Intersection LOS: F	
Intersection Capacity Utilization 106.5%		ICU Level of Service G	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 1: Trafalgar Road & William Halton Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	348	630	216	166	1001	47	394	1523	99	264	1030	146
v/c Ratio	2.04	0.67	0.38	0.67	1.14	0.10	1.34	0.79	0.13	1.42	0.51	0.20
Control Delay	508.1	50.6	8.0	45.2	123.4	2.9	196.9	36.7	7.2	247.5	28.5	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	508.1	50.6	8.0	45.2	123.4	2.9	196.9	36.7	7.2	247.5	28.5	4.0
Queue Length 50th (m)	~142.5	87.1	1.7	32.9	~179.0	0.0	~95.3	155.6	3.4	~87.4	87.7	0.0
Queue Length 95th (m)	#207.5	108.9	22.6	51.3	#222.8	3.7	#164.1	179.2	14.4	#146.3	103.4	12.7
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	171	938	565	248	877	460	293	1920	742	186	2034	724
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.04	0.67	0.38	0.67	1.14	0.10	1.34	0.79	0.13	1.42	0.51	0.20

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	338	611	210	161	971	46	382	1477	96	256	999	142
Future Volume (veh/h)	338	611	210	161	971	46	382	1477	96	256	999	142
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	348	630	216	166	1001	47	394	1523	99	264	1030	146
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	167	939	412	244	877	404	333	1921	700	227	2035	644
Arrive On Green	0.07	0.26	0.26	0.07	0.26	0.26	0.08	0.45	0.45	0.08	0.45	0.45
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4262	1553	1691	4515	1429
Grp Volume(v), veh/h	348	630	216	166	1001	47	394	1523	99	264	1030	146
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1421	1553	1691	1505	1429
Q Serve(g_s), s	9.6	21.9	16.4	9.5	36.4	3.2	11.0	42.8	5.2	11.0	22.7	8.7
Cycle Q Clear(g_c), s	9.6	21.9	16.4	9.5	36.4	3.2	11.0	42.8	5.2	11.0	22.7	8.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	939	412	244	877	404	333	1921	700	227	2035	644
V/C Ratio(X)	2.08	0.67	0.52	0.68	1.14	0.12	1.18	0.79	0.14	1.16	0.51	0.23
Avail Cap(c_a), veh/h	167	939	412	244	877	404	333	1921	700	227	2035	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	46.4	44.4	37.0	51.8	39.5	32.3	32.9	22.6	32.9	27.4	23.5
Incr Delay (d2), s/veh	505.4	2.5	2.3	7.4	77.2	0.3	108.4	3.5	0.4	110.4	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.5	11.3	7.4	5.2	26.3	1.4	10.0	17.4	2.3	15.7	9.6	3.6
LnGrp Delay(d),s/veh	546.9	48.9	46.7	44.5	129.0	39.8	140.7	36.3	23.0	143.3	28.3	24.3
LnGrp LOS	F	D	D	D	F	D	F	D	C	F	C	C
Approach Vol, veh/h		1194			1214			2016			1440	
Approach Delay, s/veh		193.7			114.0			56.1			49.0	
Approach LOS		F			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	70.0	12.6	43.4	14.0	70.0	12.6	43.4
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	11.0	* 63	9.6	36.4	11.0	* 63	9.6	36.4
Max Q Clear Time (g_c+I1), s	13.0	44.8	11.5	23.9	13.0	24.7	11.6	38.4
Green Ext Time (p_c), s	0.0	15.7	0.0	7.1	0.0	20.6	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	94.3
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

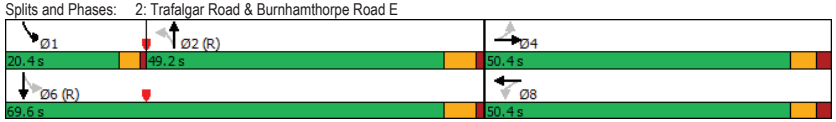
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	174	280	69	312	159	119	76	1502	107	143	1076	133
Future Volume (vph)	174	280	69	312	159	119	76	1502	107	143	1076	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.80	*0.80	1.00	*0.80	*0.80
Frt		0.970			0.936			0.990			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1793	0	1805	1739	0	1770	4201	0	1805	4176	0
Flt Permitted	0.451			0.360			0.148			0.077		
Satd. Flow (perm)	832	1793	0	684	1739	0	276	4201	0	146	4176	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			36			9			23	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	191	308	76	343	175	131	84	1651	118	157	1182	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	191	384	0	343	306	0	84	1769	0	157	1328	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		7.0	20.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		26.0	26.0		11.0	26.0	
Total Split (s)	50.4	50.4		50.4	50.4		49.2	49.2		20.4	69.6	
Total Split (%)	42.0%	42.0%		42.0%	42.0%		41.0%	41.0%		17.0%	58.0%	
Maximum Green (s)	44.4	44.4		44.4	44.4		43.2	43.2		16.4	63.6	
Yellow Time (s)	3.7	3.7		3.7	3.7		4.6	4.6		3.0	4.6	
All-Red Time (s)	2.3	2.3		2.3	2.3		1.4	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	44.4	44.4		44.4	44.4		48.2	48.2		65.6	63.6	
Actuated g/C Ratio	0.37	0.37		0.37	0.37		0.40	0.40		0.55	0.53	
v/c Ratio	0.62	0.57		1.36	0.46		0.76	1.05		0.66	0.60	
Control Delay	41.5	33.3		216.0	27.8		73.4	70.3		34.9	20.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	41.5	33.3		216.0	27.8		73.4	70.3		34.9	20.4	
LOS	D	C		F	C		E	E		C	C	
Approach Delay		36.0			127.2			70.5			21.9	
Approach LOS		D			F			E			C	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.36
Intersection Signal Delay: 58.4 Intersection LOS: E
Intersection Capacity Utilization 96.6% ICU Level of Service F
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	191	384	343	306	84	1769	157	1328
v/c Ratio	0.62	0.57	1.36	0.46	0.76	1.05	0.66	0.60
Control Delay	41.5	33.3	216.0	27.8	73.4	70.3	34.9	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.5	33.3	216.0	27.8	73.4	70.3	34.9	20.4
Queue Length 50th (m)	38.3	73.1	~111.6	50.1	18.6	~198.3	20.0	89.1
Queue Length 95th (m)	66.7	106.0	#171.5	77.1	#53.1	#257.2	42.5	106.3
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	307	670	253	666	110	1692	306	2224
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.57	1.36	0.46	0.76	1.05	0.51	0.60

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	174	280	69	312	159	119	76	1502	107	143	1076	133
Future Volume (veh/h)	174	280	69	312	159	119	76	1502	107	143	1076	133
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1848	1900	1900	1858	1900	1863	1768	1900	1900	1768	1900
Adj Flow Rate, veh/h	191	308	76	343	175	131	84	1651	118	157	1182	146
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	308	530	131	260	365	274	197	1828	131	197	2128	263
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.43	0.43	0.43	0.07	0.53	0.53
Sat Flow, veh/h	1059	1433	353	1015	988	739	411	4241	303	1810	4014	496
Grp Volume(v), veh/h	191	0	384	343	0	306	84	1101	668	157	833	495
Grp Sat Flow(s),veh/h/ln	1059	0	1786	1015	0	1727	411	1414	1715	1810	1415	1681
Q Serve(g_s), s	20.2	0.0	20.7	23.7	0.0	16.3	20.5	43.5	43.6	5.5	23.5	23.5
Cycle Q Clear(g_c), s	36.5	0.0	20.7	44.4	0.0	16.3	32.2	43.5	43.6	5.5	23.5	23.5
Prop In Lane	1.00		0.20	1.00		0.43	1.00		0.18	1.00		0.29
Lane Grp Cap(c), veh/h	308	0	661	260	0	639	197	1220	739	197	1499	891
V/C Ratio(X)	0.62	0.00	0.58	1.32	0.00	0.48	0.43	0.90	0.90	0.80	0.56	0.56
Avail Cap(c_a), veh/h	308	0	661	260	0	639	197	1220	739	326	1499	891
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	0.0	30.3	50.9	0.0	28.9	33.5	31.8	31.8	27.1	18.8	18.8
Incr Delay (d2), s/veh	3.8	0.0	1.3	167.2	0.0	0.6	6.6	10.9	16.6	7.1	1.5	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	0.0	10.5	20.7	0.0	7.8	2.7	18.8	24.0	3.1	9.4	11.5
LnGrp Delay(d),s/veh	46.7	0.0	31.6	218.0	0.0	29.5	40.1	42.7	48.4	34.3	20.3	21.3
LnGrp LOS	D		C	F		C	D	D	D	C	C	C
Approach Vol, veh/h		575			649			1853			1485	
Approach Delay, s/veh		36.6			129.1			44.6			22.1	
Approach LOS		D			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	11.9	57.7		50.4		69.6		50.4
Change Period (Y+Rc), s	4.0	* 6		6.0		* 6		6.0
Max Green Setting (Gmax), s	16.4	* 43		44.4		* 64		44.4
Max Q Clear Time (g_c+I1), s	7.5	45.6		38.5		25.5		46.4
Green Ext Time (p_c), s	0.4	0.0		1.9		24.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	48.3
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	6	66	59	5	136	33	1482	37	121	1375	13
Future Volume (vph)	37	6	66	59	5	136	33	1482	37	121	1375	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.863			0.855				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3054	0	1410	2970	0	1770	4262	1404	1671	4262	1583
Flt Permitted	0.659			0.703			0.133			0.114		
Satd. Flow (perm)	1228	3054	0	1044	2970	0	248	4262	1404	201	4262	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		70			56				39			23
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		175.7			120.2			286.4			537.5	
Travel Time (s)		12.7			8.7			12.9			24.2	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Heavy Vehicles (%)	2%	2%	2%	28%	2%	4%	2%	7%	15%	8%	7%	2%
Adj. Flow (vph)	40	7	72	61	5	142	36	1544	39	126	1432	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	79	0	61	147	0	36	1544	39	126	1432	14
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

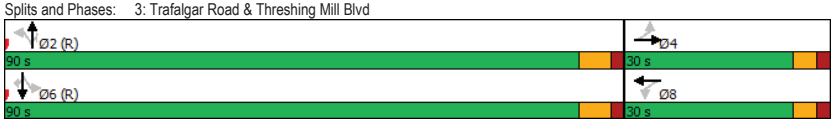
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		41.6	41.6	41.6	41.6	41.6	41.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0					0	0	0	0	0	0
Act Effct Green (s)	13.1	13.1		13.1	13.1		94.8	94.8	94.8	94.8	94.8	94.8
Actuated g/C Ratio	0.11	0.11		0.11	0.11		0.79	0.79	0.79	0.79	0.79	0.79
v/c Ratio	0.30	0.20		0.54	0.39		0.18	0.46	0.03	0.80	0.43	0.01
Control Delay	53.6	14.2		66.7	32.7		3.0	1.3	0.2	46.7	2.5	0.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.6	14.2		66.7	32.7		3.0	1.3	0.2	46.7	2.5	0.2
LOS	D	B		E	C		A	A	A	D	A	A
Approach Delay		27.5			42.7			1.3			6.0	
Approach LOS		C			D			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 13.2 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 6.8 Intersection LOS: A
Intersection Capacity Utilization 78.0% ICU Level of Service D
Analysis Period (min) 15

* User Entered Value

Splits and Phases: 3: Trafalgar Road & Threshing Mill Blvd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	40	79	61	147	36	1544	39	126	1432	14
v/c Ratio	0.30	0.20	0.54	0.39	0.18	0.46	0.03	0.80	0.43	0.01
Control Delay	53.6	14.2	66.7	32.7	3.0	1.3	0.2	46.7	2.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.6	14.2	66.7	32.7	3.0	1.3	0.2	46.7	2.5	0.2
Queue Length 50th (m)	9.4	1.0	14.6	11.1	0.5	9.2	0.1	7.5	17.0	0.0
Queue Length 95th (m)	19.8	8.3	28.2	20.6	m1.3	12.5	m0.1	#67.7	28.9	m0.2
Internal Link Dist (m)		151.7		96.2		262.4			513.5	
Turn Bay Length (m)	25.0		25.0		75.0		45.0	65.0		45.0
Base Capacity (vph)	250	679	213	650	195	3365	1116	158	3365	1254
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.12	0.29	0.23	0.18	0.46	0.03	0.80	0.43	0.01

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	6	66	59	5	136	33	1482	37	121	1375	13
Future Volume (veh/h)	37	6	66	59	5	136	33	1482	37	121	1375	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1484	1828	1900	1863	1776	1652	1759	1776	1863
Adj Flow Rate, veh/h	40	7	72	61	5	142	36	1544	39	126	1432	14
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	2	2	2	28	2	4	2	7	15	8	7	2
Cap, veh/h	123	244	218	162	240	214	339	3244	1069	291	3244	1205
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	1.00	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1236	1770	1583	1047	1737	1554	367	4262	1404	304	4262	1583
Grp Volume(v), veh/h	40	7	72	61	5	142	36	1544	39	126	1432	14
Grp Sat Flow(s),veh/h/ln	1236	1770	1583	1047	1737	1554	367	1421	1404	304	1421	1583
Q Serve(g_s), s	3.8	0.4	4.9	6.7	0.3	10.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	14.2	0.4	4.9	11.6	0.3	10.4	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	123	244	218	162	240	214	339	3244	1069	291	3244	1205
V/C Ratio(X)	0.32	0.03	0.33	0.38	0.02	0.66	0.11	0.48	0.04	0.43	0.44	0.01
Avail Cap(c_a), veh/h	205	361	323	231	355	317	339	3244	1069	291	3244	1205
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	44.8	46.7	52.0	44.7	49.1	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.5	0.0	0.9	1.5	0.0	3.5	0.6	0.4	0.1	4.6	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.2	2.2	2.0	0.1	4.7	0.1	0.1	0.0	0.4	0.1	0.0
LnGrp Delay(d),s/veh	57.3	44.8	47.6	53.4	44.7	52.5	0.6	0.4	0.1	4.6	0.4	0.0
LnGrp LOS	E	D	D	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		119			208			1619			1572	
Approach Delay, s/veh		50.7			52.6			0.4			0.8	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		97.9		22.1		97.9		22.1
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		2.0		16.2		2.0		13.6
Green Ext Time (p_c), s		50.7		0.3		53.3		1.0

Intersection Summary

HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

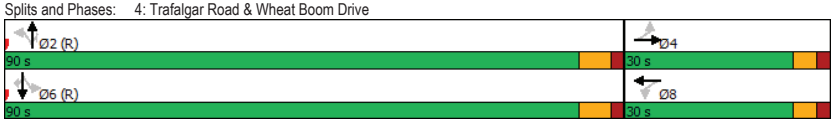
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	19	110	0	130	0	1419	56	38	1619	0
Future Volume (vph)	0	0	19	110	0	130	0	1419	56	38	1619	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3008	0	1327	2379	0	1863	4343	1292	1556	4262	1863
Flt Permitted				0.743						0.112		
Satd. Flow (perm)	1863	3008	0	1038	2379	0	1863	4343	1292	183	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		37			58				60			
Link Speed (k/h)		50			50			60			80	
Link Distance (m)		170.2			342.3			409.5			286.4	
Travel Time (s)		12.3			24.6			24.6			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Heavy Vehicles (%)	2%	2%	2%	36%	2%	29%	2%	5%	25%	16%	7%	2%
Adj. Flow (vph)	0	0	21	118	0	140	0	1526	60	41	1741	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	0	118	140	0	0	1526	60	41	1741	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0			
Pedestrian Calls (#/hr)	0	0					0	0	0			
Act Effct Green (s)		18.2		18.2	18.2			89.7	89.7	89.7	89.7	
Actuated g/C Ratio		0.15		0.15	0.15			0.75	0.75	0.75	0.75	
v/c Ratio		0.04		0.75	0.34			0.47	0.06	0.30	0.55	
Control Delay		5.4		75.4	27.2			7.0	1.5	11.3	5.6	
Queue Delay		0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay		5.4		75.4	27.2			7.0	1.5	11.3	5.6	
LOS		A		E	C			A	A	B	A	
Approach Delay		5.4			49.2			6.8			5.7	
Approach LOS		A			D			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 9.3 Intersection LOS: A
Intersection Capacity Utilization 54.4% ICU Level of Service A
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	21	118	140	1526	60	41	1741
v/c Ratio	0.04	0.75	0.34	0.47	0.06	0.30	0.55
Control Delay	5.4	75.4	27.2	7.0	1.5	11.3	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.4	75.4	27.2	7.0	1.5	11.3	5.6
Queue Length 50th (m)	0.0	28.1	9.4	54.4	0.0	1.8	35.9
Queue Length 95th (m)	2.0	47.5	18.4	78.5	4.1	7.3	63.5
Internal Link Dist (m)	146.2		318.3	385.5			262.4
Turn Bay Length (m)		25.0			45.0	65.0	
Base Capacity (vph)	643	211	531	3245	980	136	3184
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.56	0.26	0.47	0.06	0.30	0.55

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	19	110	0	130	0	1419	56	38	1619	0
Future Volume (veh/h)	0	0	19	110	0	130	0	1419	56	38	1619	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1397	1473	1900	1863	1810	1520	1638	1776	1863
Adj Flow Rate, veh/h	0	0	21	118	0	140	0	1526	60	41	1741	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Percent Heavy Veh, %	2	2	2	36	2	29	2	5	25	16	7	2
Cap, veh/h	60	261	233	201	206	184	60	3265	971	234	3204	1190
Arrive On Green	0.00	0.00	0.15	0.15	0.00	0.15	0.00	0.75	0.75	1.00	1.00	0.00
Sat Flow, veh/h	1244	1770	1583	1039	1399	1252	276	4343	1292	282	4262	1583
Grp Volume(v), veh/h	0	0	21	118	0	140	0	1526	60	41	1741	0
Grp Sat Flow(s),veh/h/ln	1244	1770	1583	1039	1399	1252	276	1448	1292	282	1421	1583
Q Serve(g_s), s	0.0	0.0	1.4	13.3	0.0	12.9	0.0	16.1	1.5	3.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.4	14.7	0.0	12.9	0.0	16.1	1.5	20.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	261	233	201	206	184	60	3265	971	234	3204	1190
V/C Ratio(X)	0.00	0.00	0.09	0.59	0.00	0.76	0.00	0.47	0.06	0.18	0.54	0.00
Avail Cap(c_a), veh/h	131	361	323	260	286	256	60	3265	971	234	3204	1190
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.91	0.91	0.00
Uniform Delay (d), s/veh	0.0	0.0	44.2	50.5	0.0	49.1	0.0	5.7	3.9	1.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.2	2.7	0.0	8.3	0.0	0.5	0.1	1.5	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	4.0	0.0	4.9	0.0	6.5	0.5	0.4	0.2	0.0
LnGrp Delay(d),s/veh	0.0	0.0	44.4	53.3	0.0	57.4	0.0	6.2	4.0	3.3	0.6	0.0
LnGrp LOS			D	D		E		A	A	A	A	
Approach Vol, veh/h		21			258			1586			1782	
Approach Delay, s/veh		44.4			55.5			6.1			0.7	
Approach LOS		D			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		96.8		23.2		96.8		23.2
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		18.1		3.4		22.0		16.7
Green Ext Time (p_c), s		23.0		0.1		30.4		1.0

Intersection Summary		
HCM 2010 Ctrl Delay		7.2
HCM 2010 LOS		A

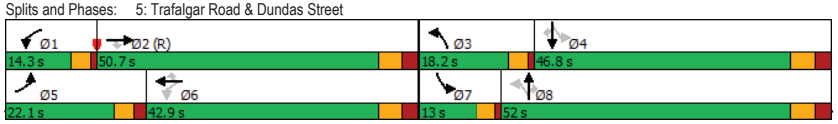
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	434	1868	255	204	1114	129	195	940	135	290	1051	316
Future Volume (vph)	434	1868	255	204	1114	129	195	940	135	290	1051	316
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98				1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	4343	1538	1736	4343	1524
Flt Permitted	0.950			0.107			0.094			0.162		
Satd. Flow (perm)	3400	5085	1557	190	4715	1292	172	4343	1538	296	4343	1497
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			205			172			138			264
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	443	1906	260	208	1137	132	199	959	138	296	1072	322
Shared Lane Traffic (%)												
Lane Group Flow (vph)	443	1906	260	208	1137	132	199	959	138	296	1072	322
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5	16.5	11.0	16.5	16.5
Total Split (s)	22.1	50.7	50.7	14.3	42.9	42.9	18.2	52.0	52.0	13.0	46.8	46.8
Total Split (%)	17.0%	39.0%	39.0%	11.0%	33.0%	33.0%	14.0%	40.0%	40.0%	10.0%	36.0%	36.0%
Maximum Green (s)	17.1	44.3	44.3	10.3	36.5	36.5	14.2	45.5	45.5	9.0	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	18.5	44.3	44.3	52.2	37.3	37.3	58.6	43.3	43.3	50.0	38.5	38.5
Actuated g/C Ratio	0.14	0.34	0.34	0.40	0.29	0.29	0.45	0.33	0.33	0.38	0.30	0.30
v/c Ratio	0.91	1.10	0.39	0.95	0.84	0.27	0.82	0.66	0.23	1.39	0.83	0.51
Control Delay	79.4	94.9	9.6	99.9	37.8	2.0	55.4	39.4	5.5	226.9	49.2	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.4	94.9	9.6	99.9	37.8	2.0	55.4	39.4	5.5	226.9	49.2	10.6
LOS	E	F	A	F	D	A	E	D	A	F	D	B
Approach Delay		83.8			43.3			38.3			73.0	
Approach LOS		F			D			D			E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 18.2 (14%), Referenced to phase 2:EBT, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.39			
Intersection Signal Delay: 64.4		Intersection LOS: E	
Intersection Capacity Utilization 99.0%		ICU Level of Service F	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 5: Trafalgar Road & Dundas Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	443	1906	260	208	1137	132	199	959	138	296	1072	322
v/c Ratio	0.91	1.10	0.39	0.95	0.84	0.27	0.82	0.66	0.23	1.39	0.83	0.51
Control Delay	79.4	94.9	9.6	99.9	37.8	2.0	55.4	39.4	5.5	226.9	49.2	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.4	94.9	9.6	99.9	37.8	2.0	55.4	39.4	5.5	226.9	49.2	10.6
Queue Length 50th (m)	62.3	~213.3	10.1	~48.6	108.6	1.5	34.6	89.4	0.0	~77.4	110.3	11.2
Queue Length 95th (m)	#97.9	#244.1	32.1	#101.7	127.4	2.7	#73.9	107.7	14.3	#137.2	131.5	38.1
Internal Link Dist (m)		530.9			391.5			307.2			385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Base Capacity (vph)	485	1732	665	220	1352	493	248	1520	628	213	1346	646
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	1.10	0.39	0.95	0.84	0.27	0.80	0.63	0.22	1.39	0.80	0.50

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	434	1868	255	204	1114	129	195	940	135	290	1051	316
Future Volume (veh/h)	434	1868	255	204	1114	129	195	940	135	290	1051	316
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1810	1827	1810	1792
Adj Flow Rate, veh/h	443	1906	260	208	1137	132	199	959	138	296	1072	322
Adj No. of Lanes	2	3	1	1	3	1	1	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	448	1894	588	189	1473	402	243	1383	487	239	1273	444
Arrive On Green	0.13	0.37	0.37	0.08	0.31	0.31	0.09	0.32	0.32	0.07	0.29	0.29
Sat Flow, veh/h	3408	5085	1578	1691	4715	1287	1740	4343	1531	1740	4343	1516
Grp Volume(v), veh/h	443	1906	260	208	1137	132	199	959	138	296	1072	322
Grp Sat Flow(s),veh/h/ln	1704	1695	1578	1691	1572	1287	1740	1448	1531	1740	1448	1516
Q Serve(g_s), s	16.9	48.4	16.1	10.3	28.4	10.2	10.1	25.1	8.8	9.0	30.1	24.8
Cycle Q Clear(g_c), s	16.9	48.4	16.1	10.3	28.4	10.2	10.1	25.1	8.8	9.0	30.1	24.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	448	1894	588	189	1473	402	243	1383	487	239	1273	444
V/C Ratio(X)	0.99	1.01	0.44	1.10	0.77	0.33	0.82	0.69	0.28	1.24	0.84	0.72
Avail Cap(c_a), veh/h	448	1894	588	189	1473	402	269	1520	536	239	1346	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.3	40.8	30.6	35.2	40.5	34.2	32.1	38.8	33.2	41.4	43.1	41.3
Incr Delay (d2), s/veh	39.3	22.2	2.4	94.2	3.3	1.3	17.0	1.3	0.4	138.5	4.9	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	26.5	7.4	11.7	12.8	3.8	6.0	10.2	3.8	19.5	12.6	11.1
LnGrp Delay(d),s/veh	95.6	63.0	33.1	129.4	43.8	35.5	49.2	40.1	33.6	179.9	48.1	46.7
LnGrp LOS	F	F	C	F	D	D	D	D	C	F	D	D
Approach Vol, veh/h		2609			1477			1296			1690	
Approach Delay, s/veh		65.6			55.1			40.8			70.9	
Approach LOS		E			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	54.8	16.3	44.6	22.1	47.0	13.0	47.9
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	10.3	44.3	14.2	40.3	17.1	36.5	9.0	45.5
Max Q Clear Time (g_c+I1), s	12.3	50.4	12.1	32.1	18.9	30.4	11.0	27.1
Green Ext Time (p_c), s	0.0	0.0	0.2	6.0	0.0	5.3	0.0	9.2

Intersection Summary	
HCM 2010 Ctrl Delay	60.1
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	2238	36	148	1317	78	65	39	169	115	86	110
Future Volume (vph)	41	2238	36	148	1317	78	65	39	169	115	86	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00		0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.916	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3140	0
Flt Permitted	0.176			0.059			0.621			0.730		
Satd. Flow (perm)	321	4940	1470	110	4673	1281	1128	1900	1577	1371	3140	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			70			83			137		44	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	44	2381	38	157	1401	83	69	41	180	122	91	117
Shared Lane Traffic (%)												
Lane Group Flow (vph)	44	2381	38	157	1401	83	69	41	180	122	208	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	2	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	26.8	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	70.2	70.2	70.2	13.0	83.2	83.2	46.8	46.8	46.8	46.8	46.8	
Total Split (%)	54.0%	54.0%	54.0%	10.0%	64.0%	64.0%	36.0%	36.0%	36.0%	36.0%	36.0%	
Maximum Green (s)	63.4	63.4	63.4	9.0	76.4	76.4	39.4	39.4	39.4	39.4	39.4	
Yellow Time (s)	4.2	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.6	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.8	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	24.0	24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	63.4	63.4	63.4	79.2	76.4	76.4	39.4	39.4	39.4	39.4	39.4	
Actuated g/C Ratio	0.49	0.49	0.49	0.61	0.59	0.59	0.30	0.30	0.30	0.30	0.30	
v/c Ratio	0.28	0.99	0.05	0.87	0.51	0.11	0.20	0.07	0.31	0.29	0.21	
Control Delay	20.0	33.1	1.9	67.4	16.6	2.7	35.7	32.8	11.3	37.1	27.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	20.0	33.1	1.9	67.4	16.6	2.7	35.7	32.8	11.3	37.1	27.0	
LOS	C	C	A	E	B	A	D	C	B	D	C	
Approach Delay		32.4			20.8			20.2			30.7	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 9.1 (7%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 27.5		Intersection LOS: C	
Intersection Capacity Utilization 113.6%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 6: Postridge Drive & Dundas Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	44	2381	38	157	1401	83	69	41	180	122	208
v/c Ratio	0.28	0.99	0.05	0.87	0.51	0.11	0.20	0.07	0.31	0.29	0.21
Control Delay	20.0	33.1	1.9	67.4	16.6	2.7	35.7	32.8	11.3	37.1	27.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.0	33.1	1.9	67.4	16.6	2.7	35.7	32.8	11.3	37.1	27.0
Queue Length 50th (m)	4.5	118.3	0.3	25.2	77.6	0.0	13.8	7.9	8.3	25.2	17.1
Queue Length 95th (m)	m4.8	m93.1	m0.3	#66.3	90.1	7.0	26.9	16.9	27.0	43.0	27.6
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	156	2409	752	181	2746	787	341	575	573	415	982
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.99	0.05	0.87	0.51	0.11	0.20	0.07	0.31	0.29	0.21

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	2238	36	148	1317	78	65	39	169	115	86	110
Future Volume (veh/h)	41	2238	36	148	1317	78	65	39	169	115	86	110
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1825	1900
Adj Flow Rate, veh/h	44	2381	38	157	1401	83	69	41	180	122	91	117
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	198	2409	726	180	2746	770	336	576	481	389	525	466
Arrive On Green	0.49	0.49	0.49	0.07	0.59	0.59	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	347	4940	1489	1774	4673	1310	1140	1900	1586	1160	1733	1539
Grp Volume(v), veh/h	44	2381	38	157	1401	83	69	41	180	122	91	117
Grp Sat Flow(s),veh/h/ln	347	1647	1489	1774	1558	1310	1140	1900	1586	1160	1733	1539
Q Serve(g_s), s	11.1	62.0	1.7	7.2	23.0	3.6	6.3	2.0	11.6	10.9	5.0	7.5
Cycle Q Clear(g_c), s	21.1	62.0	1.7	7.2	23.0	3.6	13.8	2.0	11.6	12.9	5.0	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	198	2409	726	180	2746	770	336	576	481	389	525	466
V/C Ratio(X)	0.22	0.99	0.05	0.87	0.51	0.11	0.21	0.07	0.37	0.31	0.17	0.25
Avail Cap(c_a), veh/h	198	2409	726	180	2746	770	336	576	481	389	525	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.8	32.9	17.5	38.2	15.8	11.8	39.4	32.3	35.6	36.9	33.3	34.2
Incr Delay (d2), s/veh	2.6	15.8	0.1	34.5	0.7	0.3	1.4	0.2	2.2	2.1	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	31.5	0.7	7.3	10.0	1.4	2.1	1.1	5.4	3.7	2.5	3.3
LnGrp Delay(d),s/veh	28.4	48.7	17.6	72.7	16.5	12.1	40.7	32.5	37.8	39.0	34.0	35.5
LnGrp LOS	C	D	B	E	B	B	D	C	D	D	C	D
Approach Vol, veh/h		2463			1641			290			330	
Approach Delay, s/veh		47.9			21.6			37.8			36.4	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	13.0	70.2		46.8		83.2		46.8
Change Period (Y+Rc), s	4.0	6.8		* 7.4		6.8		* 7.4
Max Green Setting (Gmax), s	9.0	63.4		* 39		76.4		* 39
Max Q Clear Time (g_c+I1), s	9.2	64.0		15.8		25.0		14.9
Green Ext Time (p_c), s	0.0	0.0		1.5		19.3		2.2

Intersection Summary

HCM 2010 Ctrl Delay		37.3	
HCM 2010 LOS		D	

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	57	99	104	27	42	90
Future Volume (vph)	57	99	104	27	42	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.972		0.908	
Flt Protected		0.982			0.984	
Satd. Flow (prot)	0	1661	1737	0	1562	0
Flt Permitted		0.982			0.984	
Satd. Flow (perm)	0	1661	1737	0	1562	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		120.2	260.2		319.6	
Travel Time (s)		8.7	18.7		23.0	
Confl. Peds. (#/hr)					4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	25%	5%	8%	0%	8%	9%
Adj. Flow (vph)	65	113	118	31	48	102
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	178	149	0	150	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 33.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	57	99	104	27	42	90
Future Vol, veh/h	57	99	104	27	42	90
Conflicting Peds, #/hr	0	0	0	0	4	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	88	88	88	88	88	88
Heavy Vehicles, %	25	5	8	0	8	9
Mvmt Flow	65	113	118	31	48	102

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	149	0	-	0	381	134
Stage 1	-	-	-	-	134	-
Stage 2	-	-	-	-	247	-
Critical Hdwy	4.35	-	-	-	6.48	6.29
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.425	-	-	-	3.572	3.381
Pot Cap-1 Maneuver	1303	-	-	-	610	897
Stage 1	-	-	-	-	878	-
Stage 2	-	-	-	-	780	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1303	-	-	-	578	897
Mov Cap-2 Maneuver	-	-	-	-	578	-
Stage 1	-	-	-	-	831	-
Stage 2	-	-	-	-	780	-

Approach	EB	WB	SB
HCM Control Delay, s	2.9	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1303	-	-	-	763
HCM Lane V/C Ratio	0.05	-	-	-	0.197
HCM Control Delay (s)	7.9	0	-	-	10.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7

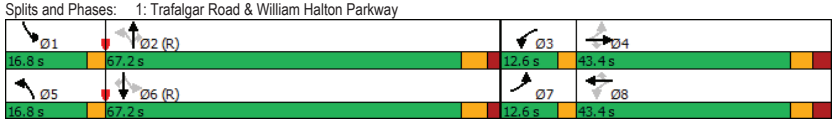
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	378	299	117	578	1643	32	343	1873	85	200	1351	552
Future Volume (vph)	378	299	117	578	1643	32	343	1873	85	200	1351	552
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4262	1553	1687	4515	1429
Flt Permitted	0.110			0.514			0.072			0.066		
Satd. Flow (perm)	195	3610	1583	977	3374	1553	137	4262	1553	117	4515	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			121			77			78			182
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	390	308	121	596	1694	33	354	1931	88	206	1393	569
Shared Lane Traffic (%)												
Lane Group Flow (vph)	390	308	121	596	1694	33	354	1931	88	206	1393	569
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	12.6	43.4	43.4	12.6	43.4	43.4	16.8	67.2	67.2	16.8	67.2	67.2
Total Split (%)	9.0%	31.0%	31.0%	9.0%	31.0%	31.0%	12.0%	48.0%	48.0%	12.0%	48.0%	48.0%
Maximum Green (s)	9.6	36.4	36.4	9.6	36.4	36.4	13.8	60.3	60.3	13.8	60.3	60.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	50.0	36.4	36.4	50.0	36.4	36.4	78.0	60.3	60.3	78.0	60.3	60.3
Actuated g/C Ratio	0.36	0.26	0.26	0.36	0.26	0.26	0.56	0.43	0.43	0.56	0.43	0.43
v/c Ratio	2.28	0.33	0.24	1.47	1.93	0.07	1.48	1.05	0.12	0.94	0.72	0.79
Control Delay	615.2	43.1	7.8	257.4	452.3	0.3	265.2	75.0	6.6	83.8	35.4	32.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	615.2	43.1	7.8	257.4	452.3	0.3	265.2	75.0	6.6	83.8	35.4	32.2
LOS	F	D	A	F	F	A	F	E	A	F	D	C
Approach Delay		310.3			395.9			100.8			39.1	
Approach LOS		F			F			F			D	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.28
Intersection Signal Delay: 195.0 Intersection LOS: F
Intersection Capacity Utilization 131.9% ICU Level of Service H
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 1: Trafalgar Road & William Halton Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	390	308	121	596	1694	33	354	1931	88	206	1393	569
v/c Ratio	2.28	0.33	0.24	1.47	1.93	0.07	1.48	1.05	0.12	0.94	0.72	0.79
Control Delay	615.2	43.1	7.8	257.4	452.3	0.3	265.2	75.0	6.6	83.8	35.4	32.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	615.2	43.1	7.8	257.4	452.3	0.3	265.2	75.0	6.6	83.8	35.4	32.2
Queue Length 50th (m)	~168.2	38.4	0.0	~237.7	~399.5	0.0	~122.7	~255.2	1.7	43.7	137.4	101.4
Queue Length 95th (m)	#235.7	52.6	16.1	#312.7	#443.7	0.0	#187.8	#289.7	12.2	#94.6	158.5	156.7
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	171	938	501	405	877	460	240	1835	713	219	1944	719
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.28	0.33	0.24	1.47	1.93	0.07	1.48	1.05	0.12	0.94	0.72	0.79

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	378	299	117	578	1643	32	343	1873	85	200	1351	552
Future Volume (veh/h)	378	299	117	578	1643	32	343	1873	85	200	1351	552
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	390	308	121	596	1694	33	354	1931	88	206	1393	569
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	167	939	412	362	877	404	270	1836	669	218	1945	616
Arrive On Green	0.07	0.26	0.26	0.07	0.26	0.26	0.10	0.43	0.43	0.10	0.43	0.43
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4262	1553	1691	4515	1429
Grp Volume(v), veh/h	390	308	121	596	1694	33	354	1931	88	206	1393	569
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1421	1553	1691	1505	1429
Q Serve(g_s), s	9.6	9.7	8.6	9.6	36.4	2.2	13.8	60.3	4.8	12.7	35.6	52.7
Cycle Q Clear(g_c), s	9.6	9.7	8.6	9.6	36.4	2.2	13.8	60.3	4.8	12.7	35.6	52.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	939	412	362	877	404	270	1836	669	218	1945	616
V/C Ratio(X)	2.33	0.33	0.29	1.65	1.93	0.08	1.31	1.05	0.13	0.94	0.72	0.92
Avail Cap(c_a), veh/h	167	939	412	362	877	404	270	1836	669	218	1945	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	41.9	41.5	49.0	51.8	39.2	36.6	39.9	24.0	44.6	32.8	37.7
Incr Delay (d2), s/veh	616.7	0.4	0.8	304.0	423.2	0.2	164.2	36.2	0.4	45.4	2.3	21.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	33.4	4.9	3.9	40.8	68.5	1.0	22.7	29.8	2.1	10.6	15.1	24.4
LnGrp Delay(d),s/veh	658.2	42.3	42.3	353.0	475.0	39.3	200.8	76.1	24.5	90.0	35.1	59.5
LnGrp LOS	F	D	D	F	F	D	F	F	C	F	D	E
Approach Vol, veh/h		819			2323			2373			2168	
Approach Delay, s/veh		335.6			437.5			92.8			46.7	
Approach LOS		F			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.8	67.2	12.6	43.4	16.8	67.2	12.6	43.4
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	13.8	* 60	9.6	36.4	13.8	* 60	9.6	36.4
Max Q Clear Time (g_c+I1), s	14.7	62.3	11.6	11.7	15.8	54.7	11.6	38.4
Green Ext Time (p_c), s	0.0	0.0	0.0	5.3	0.0	5.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	209.9
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

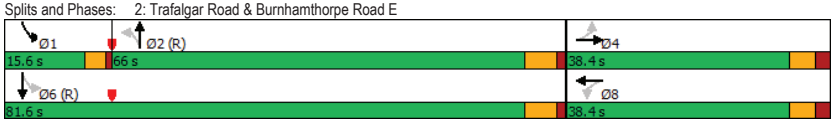
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	273	58	287	236	135	125	1808	114	192	1435	302
Future Volume (vph)	131	273	58	287	236	135	125	1808	114	192	1435	302
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.80	*0.80	1.00	*0.80	*0.80
Frt		0.974			0.945			0.991			0.974	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1802	0	1805	1751	0	1770	4203	0	1805	4146	0
Flt Permitted	0.207			0.272			0.066			0.062		
Satd. Flow (perm)	382	1802	0	517	1751	0	123	4203	0	118	4146	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			23			10			58	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	144	300	64	315	259	148	137	1987	125	211	1577	332
Shared Lane Traffic (%)												
Lane Group Flow (vph)	144	364	0	315	407	0	137	2112	0	211	1909	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		7.0	20.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		26.0	26.0		11.0	26.0	
Total Split (s)	38.4	38.4		38.4	38.4		66.0	66.0		15.6	81.6	
Total Split (%)	32.0%	32.0%		32.0%	32.0%		55.0%	55.0%		13.0%	68.0%	
Maximum Green (s)	32.4	32.4		32.4	32.4		60.0	60.0		11.6	75.6	
Yellow Time (s)	3.7	3.7		3.7	3.7		4.6	4.6		3.0	4.6	
All-Red Time (s)	2.3	2.3		2.3	2.3		1.4	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	32.4	32.4		32.4	32.4		60.3	60.3		77.6	75.6	
Actuated g/C Ratio	0.27	0.27		0.27	0.27		0.50	0.50		0.65	0.63	
v/c Ratio	1.40	0.74		2.27	0.83		2.25	1.00		0.90	0.73	
Control Delay	262.4	49.2		615.4	54.8		622.4	51.5		66.5	16.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	262.4	49.2		615.4	54.8		622.4	51.5		66.5	16.6	
LOS	F	D		F	D		F	D		E	B	
Approach Delay		109.6			299.4			86.3			21.6	
Approach LOS		F			F			F			C	

Intersection Summary		
Area Type:	Other	
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green		
Natural Cycle: 100		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 2.27		
Intersection Signal Delay: 91.4	Intersection LOS: F	
Intersection Capacity Utilization 104.9%	ICU Level of Service G	
Analysis Period (min) 15		

* User Entered Value

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	144	364	315	407	137	2112	211	1909
v/c Ratio	1.40	0.74	2.27	0.83	2.25	1.00	0.90	0.73
Control Delay	262.4	49.2	615.4	54.8	622.4	51.5	66.5	16.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	262.4	49.2	615.4	54.8	622.4	51.5	66.5	16.6
Queue Length 50th (m)	~47.7	80.6	~126.5	90.4	~54.7	~220.5	34.8	121.4
Queue Length 95th (m)	#90.5	116.9	#184.8	#143.0	#84.5	#261.9	#80.4	142.8
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	103	493	139	489	61	2115	239	2633
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.40	0.74	2.27	0.83	2.25	1.00	0.88	0.73

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	273	58	287	236	135	125	1808	114	192	1435	302
Future Volume (veh/h)	131	273	58	287	236	135	125	1808	114	192	1435	302
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1850	1900	1900	1853	1900	1863	1767	1900	1900	1774	1900
Adj Flow Rate, veh/h	144	300	64	315	259	148	137	1987	125	211	1577	332
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	106	399	85	147	299	171	143	2254	141	290	2331	488
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	1.00	1.00	1.00	0.07	0.63	0.63
Sat Flow, veh/h	965	1479	315	1034	1108	633	234	4279	268	1810	3700	775
Grp Volume(v), veh/h	144	0	364	315	0	407	137	1311	801	211	1207	702
Grp Sat Flow(s),veh/h/ln	965	0	1794	1034	0	1741	234	1414	1720	1810	1419	1637
Q Serve(g_s), s	5.7	0.0	22.3	10.1	0.0	26.7	42.3	0.0	0.0	6.1	32.9	33.3
Cycle Q Clear(g_c), s	32.4	0.0	22.3	32.4	0.0	26.7	63.2	0.0	0.0	6.1	32.9	33.3
Prop In Lane	1.00		0.18	1.00		0.36	1.00		0.16	1.00		0.47
Lane Grp Cap(c), veh/h	106	0	484	147	0	470	143	1489	906	290	1788	1031
V/C Ratio(X)	1.36	0.00	0.75	2.14	0.00	0.87	0.96	0.88	0.88	0.73	0.68	0.68
Avail Cap(c_a), veh/h	106	0	484	147	0	470	143	1489	906	338	1788	1031
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.8	0.0	40.1	57.0	0.0	41.7	18.9	0.0	0.0	12.4	14.3	14.4
Incr Delay (d2), s/veh	212.6	0.0	6.5	535.8	0.0	15.5	65.5	7.7	12.3	6.5	2.1	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	0.0	11.9	26.8	0.0	14.9	7.1	1.6	3.1	4.3	13.3	15.8
LnGrp Delay(d),s/veh	271.3	0.0	46.6	592.8	0.0	57.2	84.4	7.7	12.3	18.9	16.4	18.0
LnGrp LOS	F		D	F		E	F	A	B	B	B	B
Approach Vol, veh/h		508			722			2249			2120	
Approach Delay, s/veh		110.3			290.9			14.0			17.2	
Approach LOS		F			F			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	12.4	69.2		38.4		81.6		38.4
Change Period (Y+Rc), s	4.0	* 6		6.0		* 6		6.0
Max Green Setting (Gmax), s	11.6	* 60		32.4		* 76		32.4
Max Q Clear Time (g_c+I1), s	8.1	65.2		34.4		35.3		34.4
Green Ext Time (p_c), s	0.3	0.0		0.0		34.7		0.0

Intersection Summary

HCM 2010 Ctrl Delay		59.7	
HCM 2010 LOS		E	

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

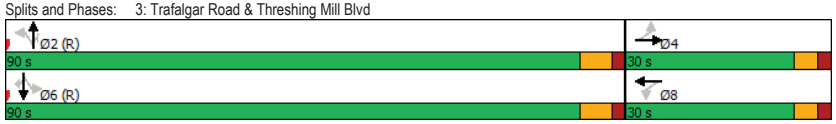
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	0	51	49	30	237	63	1791	66	84	1664	34
Future Volume (vph)	21	0	51	49	30	237	63	1791	66	84	1664	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.868				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3008	0	1410	3020	0	1770	4262	1404	1671	4262	1583
Flt Permitted	0.434			0.719			0.085			0.070		
Satd. Flow (perm)	808	3008	0	1067	3020	0	158	4262	1404	123	4262	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			29				58			33
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		175.7			120.2			286.4			537.5	
Travel Time (s)		12.7			8.7			12.9			24.2	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Heavy Vehicles (%)	2%	2%	2%	28%	2%	4%	2%	7%	15%	8%	7%	2%
Adj. Flow (vph)	23	0	55	51	33	247	68	1866	69	88	1733	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	55	0	51	280	0	68	1866	69	88	1733	37
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		41.6	41.6	41.6	41.6	41.6	41.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0					0	0	0	0	0	0
Act Effct Green (s)	15.3	15.3		15.3	15.3		92.6	92.6	92.6	92.6	92.6	92.6
Actuated g/C Ratio	0.13	0.13		0.13	0.13		0.77	0.77	0.77	0.77	0.77	0.77
v/c Ratio	0.22	0.13		0.38	1.11dr		0.56	0.57	0.06	0.94	0.53	0.03
Control Delay	50.8	20.4		54.8	53.0		21.3	2.8	0.3	90.8	3.9	0.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.8	20.4		54.8	53.0		21.3	2.8	0.3	90.8	3.9	0.8
LOS	D	C		D	D		C	A	A	F	A	A
Approach Delay		29.3			53.3			3.3			7.9	
Approach LOS		C			D			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 20.4 (17%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 9.7 Intersection LOS: A
Intersection Capacity Utilization 84.1% ICU Level of Service E
Analysis Period (min) 15
* User Entered Value
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 3: Trafalgar Road & Threshing Mill Blvd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	23	55	51	280	68	1866	69	88	1733	37
v/c Ratio	0.22	0.13	0.38	1.11dr	0.56	0.57	0.06	0.94	0.53	0.03
Control Delay	50.8	20.4	54.8	53.0	21.3	2.8	0.3	90.8	3.9	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.8	20.4	54.8	53.0	21.3	2.8	0.3	90.8	3.9	0.8
Queue Length 50th (m)	5.2	2.0	11.8	31.6	2.0	23.1	0.3	6.7	30.1	0.0
Queue Length 95th (m)	13.3	8.1	24.1	45.1	m#27.9	26.2	m0.3	#57.9	42.7	1.2
Internal Link Dist (m)		151.7		96.2		262.4			513.5	
Turn Bay Length (m)	25.0		25.0		75.0		45.0	65.0		45.0
Base Capacity (vph)	164	644	217	639	121	3287	1096	94	3287	1228
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.09	0.24	0.44	0.56	0.57	0.06	0.94	0.53	0.03

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	0	51	49	30	237	63	1791	66	84	1664	34
Future Volume (veh/h)	21	0	51	49	30	237	63	1791	66	84	1664	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1484	1831	1900	1863	1776	1652	1759	1776	1863
Adj Flow Rate, veh/h	23	0	55	51	33	247	68	1866	69	88	1733	37
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	2	2	2	28	2	4	2	7	15	8	7	2
Cap, veh/h	101	337	302	233	331	296	176	3020	995	213	3020	1122
Arrive On Green	0.19	0.00	0.19	0.19	0.19	0.19	1.00	1.00	1.00	0.47	0.47	0.47
Sat Flow, veh/h	1095	1770	1583	1070	1740	1556	278	4262	1404	216	4262	1583
Grp Volume(v), veh/h	23	0	55	51	33	247	68	1866	69	88	1733	37
Grp Sat Flow(s),veh/h/ln	1095	1770	1583	1070	1740	1556	278	1421	1404	216	1421	1583
Q Serve(g_s), s	2.5	0.0	3.5	5.0	1.9	18.3	18.5	0.0	0.0	35.4	35.2	1.5
Cycle Q Clear(g_c), s	20.8	0.0	3.5	8.5	1.9	18.3	53.8	0.0	0.0	35.4	35.2	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	101	337	302	233	331	296	176	3020	995	213	3020	1122
V/C Ratio(X)	0.23	0.00	0.18	0.22	0.10	0.83	0.39	0.62	0.07	0.41	0.57	0.03
Avail Cap(c_a), veh/h	116	361	323	247	355	318	176	3020	995	213	3020	1122
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.8	0.0	40.7	44.3	40.1	46.7	11.1	0.0	0.0	18.5	18.4	9.6
Incr Delay (d2), s/veh	1.1	0.0	0.3	0.5	0.1	16.2	5.0	0.8	0.1	5.8	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.6	1.5	0.9	9.2	1.7	0.2	0.0	2.5	14.0	0.7
LnGrp Delay(d),s/veh	57.9	0.0	41.0	44.8	40.2	63.0	16.1	0.8	0.1	24.3	19.2	9.6
LnGrp LOS	E		D	D	D	E	B	A	A	C	B	A
Approach Vol, veh/h		78			331			2003			1858	
Approach Delay, s/veh		46.0			57.9			1.2			19.3	
Approach LOS		D			E			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		91.6		28.4		91.6		28.4
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		55.8		22.8		37.4		20.3
Green Ext Time (p_c), s		25.5		0.0		39.8		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	14.3
HCM 2010 LOS	B

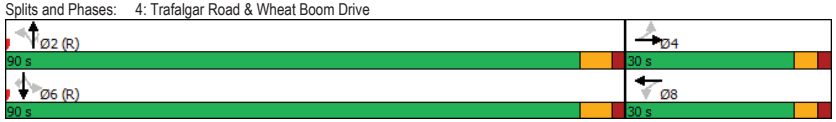
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	14	118	0	158	0	1755	136	110	1696	0
Future Volume (vph)	0	0	14	118	0	158	0	1755	136	110	1696	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3008	0	1327	2379	0	1863	4343	1292	1556	4262	1863
Flt Permitted				0.747						0.065		
Satd. Flow (perm)	1863	3008	0	1044	2379	0	1863	4343	1292	106	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33			33				121			
Link Speed (k/h)		50			50			60			80	
Link Distance (m)		170.2			342.3			409.5			286.4	
Travel Time (s)		12.3			24.6			24.6			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Heavy Vehicles (%)	2%	2%	2%	36%	2%	29%	2%	5%	25%	16%	7%	2%
Adj. Flow (vph)	0	0	15	127	0	170	0	1887	146	118	1824	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	127	170	0	0	1887	146	118	1824	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0			
Pedestrian Calls (#/hr)	0	0					0	0	0			
Act Effct Green (s)		18.9		18.9	18.9			89.0	89.0	89.0	89.0	
Actuated g/C Ratio		0.16		0.16	0.16			0.74	0.74	0.74	0.74	
v/c Ratio		0.03		0.77	0.42			0.59	0.15	1.51	0.58	
Control Delay		4.1		76.8	38.5			8.6	1.8	301.8	5.9	
Queue Delay		0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay		4.1		76.8	38.5			8.6	1.8	301.8	5.9	
LOS		A		E	D			A	A	F	A	
Approach Delay		4.1			54.9			8.1			23.8	
Approach LOS		A			D			A			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 13.2 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.51			
Intersection Signal Delay: 18.5		Intersection LOS: B	
Intersection Capacity Utilization 79.4%		ICU Level of Service D	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	15	127	170	1887	146	118	1824
v/c Ratio	0.03	0.77	0.42	0.59	0.15	1.51	0.58
Control Delay	4.1	76.8	38.5	8.6	1.8	301.8	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.1	76.8	38.5	8.6	1.8	301.8	5.9
Queue Length 50th (m)	0.0	30.3	16.0	80.1	1.5	~40.3	38.8
Queue Length 95th (m)	1.2	51.0	26.1	110.2	8.1	#80.9	59.0
Internal Link Dist (m)	146.2		318.3	385.5			262.4
Turn Bay Length (m)		25.0			45.0	65.0	
Base Capacity (vph)	640	213	511	3219	988	78	3159
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.60	0.33	0.59	0.15	1.51	0.58

Intersection Summary
~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	14	118	0	158	0	1755	136	110	1696	0
Future Volume (veh/h)	0	0	14	118	0	158	0	1755	136	110	1696	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1397	1473	1900	1863	1810	1520	1638	1776	1863
Adj Flow Rate, veh/h	0	0	15	127	0	170	0	1887	146	118	1824	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Percent Heavy Veh, %	2	2	2	36	2	29	2	5	25	16	7	2
Cap, veh/h	60	279	250	217	221	198	60	3219	958	159	3159	1174
Arrive On Green	0.00	0.00	0.16	0.16	0.00	0.16	0.00	0.74	0.74	1.00	1.00	0.00
Sat Flow, veh/h	1210	1770	1583	1045	1399	1252	255	4343	1292	183	4262	1583
Grp Volume(v), veh/h	0	0	15	127	0	170	0	1887	146	118	1824	0
Grp Sat Flow(s),veh/h/ln	1210	1770	1583	1045	1399	1252	255	1448	1292	183	1421	1583
Q Serve(g_s), s	0.0	0.0	1.0	14.1	0.0	15.9	0.0	23.9	4.0	65.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.0	15.1	0.0	15.9	0.0	23.9	4.0	89.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	279	250	217	221	198	60	3219	958	159	3159	1174
V/C Ratio(X)	0.00	0.00	0.06	0.59	0.00	0.86	0.00	0.59	0.15	0.74	0.58	0.00
Avail Cap(c_a), veh/h	116	361	323	265	286	256	60	3219	958	159	3159	1174
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.84	0.84	0.00
Uniform Delay (d), s/veh	0.0	0.0	43.0	49.4	0.0	49.2	0.0	7.1	4.5	17.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	2.5	0.0	20.1	0.0	0.8	0.3	22.9	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.4	4.2	0.0	6.6	0.0	9.7	1.5	4.9	0.2	0.0
LnGrp Delay(d),s/veh	0.0	0.0	43.1	51.9	0.0	69.4	0.0	7.9	4.9	40.0	0.7	0.0
LnGrp LOS			D	D		E		A	A	D	A	
Approach Vol, veh/h		15			297			2033			1942	
Approach Delay, s/veh		43.1			61.9			7.7			3.0	
Approach LOS		D			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		95.6		24.4		95.6		24.4
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		25.9		3.0		91.0		17.9
Green Ext Time (p_c), s		32.5		0.0		0.0		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	9.5
HCM 2010 LOS	A

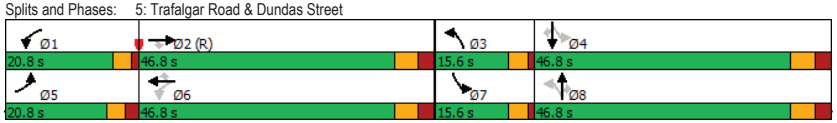
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	502	1644	258	249	2161	142	320	1292	268	330	997	474
Future Volume (vph)	502	1644	258	249	2161	142	320	1292	268	330	997	474
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98				1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	4343	1538	1736	4343	1524
Flt Permitted	0.950			0.099			0.111			0.099		
Satd. Flow (perm)	3400	5085	1557	176	4715	1292	203	4343	1538	181	4343	1497
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			226			105			182			260
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	512	1678	263	254	2205	145	327	1318	273	337	1017	484
Shared Lane Traffic (%)												
Lane Group Flow (vph)	512	1678	263	254	2205	145	327	1318	273	337	1017	484
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5	16.5	11.0	16.5	16.5
Total Split (s)	20.8	46.8	46.8	20.8	46.8	46.8	15.6	46.8	46.8	15.6	46.8	46.8
Total Split (%)	16.0%	36.0%	36.0%	16.0%	36.0%	36.0%	12.0%	36.0%	36.0%	12.0%	36.0%	36.0%
Maximum Green (s)	15.8	40.4	40.4	16.8	40.4	40.4	11.6	40.3	40.3	11.6	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	15.8	40.6	40.6	59.4	40.4	40.4	54.4	40.3	40.3	54.4	40.3	40.3
Actuated g/C Ratio	0.12	0.31	0.31	0.46	0.31	0.31	0.42	0.31	0.31	0.42	0.31	0.31
v/c Ratio	1.24	1.06	0.41	0.93	1.51	0.31	1.48	0.98	0.45	1.57	0.76	0.75
Control Delay	173.4	82.7	8.7	63.3	258.0	12.9	265.1	64.5	14.6	306.6	44.7	26.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	173.4	82.7	8.7	63.3	258.0	12.9	265.1	64.5	14.6	306.6	44.7	26.4
LOS	F	F	A	E	F	B	F	E	B	F	D	C
Approach Delay		93.7			225.4			91.6			87.9	
Approach LOS		F			F			F			F	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 40.3 (31%), Referenced to phase 2:EBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.57
Intersection Signal Delay: 130.9 — Intersection LOS: F
Intersection Capacity Utilization 117.6% — ICU Level of Service H
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 5: Trafalgar Road & Dundas Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	512	1678	263	254	2205	145	327	1318	273	337	1017	484
v/c Ratio	1.24	1.06	0.41	0.93	1.51	0.31	1.48	0.98	0.45	1.57	0.76	0.75
Control Delay	173.4	82.7	8.7	63.3	258.0	12.9	265.1	64.5	14.6	306.6	44.7	26.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	173.4	82.7	8.7	63.3	258.0	12.9	265.1	64.5	14.6	306.6	44.7	26.4
Queue Length 50th (m)	~88.1	~182.1	7.0	57.8	~298.7	9.2	~102.7	146.6	18.0	~112.6	102.9	56.5
Queue Length 95th (m)	#124.2	#213.4	29.3	m55.2	m#273.6	m8.7	#164.7	#185.7	44.0	#174.6	123.2	102.8
Internal Link Dist (m)		530.9			391.5			307.2			385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Base Capacity (vph)	413	1586	641	275	1465	473	221	1346	602	214	1346	643
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.24	1.06	0.41	0.92	1.51	0.31	1.48	0.98	0.45	1.57	0.76	0.75

Intersection Summary

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	502	1644	258	249	2161	142	320	1292	268	330	997	474
Future Volume (veh/h)	502	1644	258	249	2161	142	320	1292	268	330	997	474
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1810	1827	1810	1792
Adj Flow Rate, veh/h	512	1678	263	254	2205	145	327	1318	273	337	1017	484
Adj No. of Lanes	2	3	1	1	3	1	1	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	414	1580	490	274	1465	400	244	1346	475	214	1346	470
Arrive On Green	0.12	0.31	0.31	0.13	0.31	0.31	0.09	0.31	0.31	0.09	0.31	0.31
Sat Flow, veh/h	3408	5085	1577	1691	4715	1287	1740	4343	1531	1740	4343	1516
Grp Volume(v), veh/h	512	1678	263	254	2205	145	327	1318	273	337	1017	484
Grp Sat Flow(s),veh/h/ln	1704	1695	1577	1691	1572	1287	1740	1448	1531	1740	1448	1516
Q Serve(g_s), s	15.8	40.4	17.9	15.0	40.4	11.4	11.6	39.1	19.5	11.6	27.4	40.3
Cycle Q Clear(g_c), s	15.8	40.4	17.9	15.0	40.4	11.4	11.6	39.1	19.5	11.6	27.4	40.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	414	1580	490	274	1465	400	244	1346	475	214	1346	470
V/C Ratio(X)	1.24	1.06	0.54	0.93	1.50	0.36	1.34	0.98	0.58	1.58	0.76	1.03
Avail Cap(c_a), veh/h	414	1580	490	274	1465	400	244	1346	475	214	1346	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.1	44.8	37.1	38.3	44.8	34.8	34.8	44.4	37.7	36.3	40.4	44.8
Incr Delay (d2), s/veh	125.5	41.1	4.2	35.7	230.7	1.5	177.0	19.6	1.9	281.4	2.6	49.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.6	24.9	8.4	11.8	48.8	4.2	21.3	18.1	8.4	24.3	11.2	23.3
LnGrp Delay(d),s/veh	182.6	85.9	41.2	74.0	275.5	36.3	211.9	64.1	39.6	317.6	43.0	94.2
LnGrp LOS	F	F	D	E	F	D	F	E	D	F	D	F
Approach Vol, veh/h		2453			2604			1918			1838	
Approach Delay, s/veh		101.3			242.5			85.8			106.8	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.8	46.8	15.6	46.8	20.8	46.8	15.6	46.8
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	16.8	40.4	11.6	40.3	15.8	40.4	11.6	40.3
Max Q Clear Time (g_c+I1), s	17.0	42.4	13.6	42.3	17.8	42.4	13.6	41.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	140.8
HCM 2010 LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	1829	69	299	2423	142	129	92	157	105	63	51
Future Volume (vph)	75	1829	69	299	2423	142	129	92	157	105	63	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor			0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.933	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3213	0
Flt Permitted	0.078			0.072			0.675			0.694		
Satd. Flow (perm)	142	4940	1470	134	4673	1281	1225	1900	1577	1303	3213	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			104			103			167		54	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	80	1946	73	318	2578	151	137	98	167	112	67	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	80	1946	73	318	2578	151	137	98	167	112	121	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	11.0	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	11.7	57.2	57.2	26.0	71.5	71.5	46.8	46.8	46.8	46.8	46.8	
Total Split (%)	9.0%	44.0%	44.0%	20.0%	55.0%	55.0%	36.0%	36.0%	36.0%	36.0%	36.0%	
Maximum Green (s)	7.7	50.4	50.4	22.0	64.7	64.7	39.4	39.4	39.4	39.4	39.4	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)		24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	61.7	51.5	51.5	79.2	67.2	67.2	39.4	39.4	39.4	39.4	39.4	
Actuated g/C Ratio	0.47	0.40	0.40	0.61	0.52	0.52	0.30	0.30	0.30	0.30	0.30	
v/c Ratio	0.51	1.00	0.11	0.92	1.07	0.21	0.37	0.17	0.28	0.28	0.12	
Control Delay	29.9	41.2	5.6	69.0	71.0	7.2	39.1	34.3	6.1	37.0	18.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	29.9	41.2	5.6	69.0	71.0	7.2	39.1	34.3	6.1	37.0	18.7	
LOS	C	D	A	E	E	A	D	C	A	D	B	
Approach Delay		39.5			67.6			24.2			27.5	
Approach LOS		D			E			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 36.4 (28%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.07			
Intersection Signal Delay: 52.8		Intersection LOS: D	
Intersection Capacity Utilization 100.3%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 6: Postridge Drive & Dundas Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	80	1946	73	318	2578	151	137	98	167	112	121
v/c Ratio	0.51	1.00	0.11	0.92	1.07	0.21	0.37	0.17	0.28	0.28	0.12
Control Delay	29.9	41.2	5.6	69.0	71.0	7.2	39.1	34.3	6.1	37.0	18.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.9	41.2	5.6	69.0	71.0	7.2	39.1	34.3	6.1	37.0	18.7
Queue Length 50th (m)	12.6	~111.8	1.6	67.1	~290.4	6.6	29.0	19.4	0.0	23.0	6.7
Queue Length 95th (m)	m12.4	m100.0	m1.6	#121.2	#318.7	18.9	48.7	34.2	16.7	40.3	14.5
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	161	1955	644	358	2414	711	371	575	594	394	1011
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	1.00	0.11	0.89	1.07	0.21	0.37	0.17	0.28	0.28	0.12

Intersection Summary	
~	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.
m	Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	1829	69	299	2423	142	129	92	157	105	63	51
Future Volume (veh/h)	75	1829	69	299	2423	142	129	92	157	105	63	51
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1829	1900
Adj Flow Rate, veh/h	80	1946	73	318	2578	151	137	98	167	112	67	54
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	144	1953	588	342	2365	663	394	576	481	351	581	422
Arrive On Green	0.05	0.40	0.40	0.16	0.51	0.51	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1740	4940	1488	1774	4673	1310	1233	1900	1586	1115	1916	1392
Grp Volume(v), veh/h	80	1946	73	318	2578	151	137	98	167	112	60	61
Grp Sat Flow(s),veh/h/ln	1740	1647	1488	1774	1558	1310	1233	1900	1586	1115	1737	1570
Q Serve(g_s), s	3.5	51.1	4.1	18.8	65.8	8.4	11.8	4.9	10.7	10.7	3.2	3.7
Cycle Q Clear(g_c), s	3.5	51.1	4.1	18.8	65.8	8.4	15.4	4.9	10.7	15.6	3.2	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.89
Lane Grp Cap(c), veh/h	144	1953	588	342	2365	663	394	576	481	351	527	476
V/C Ratio(X)	0.56	1.00	0.12	0.93	1.09	0.23	0.35	0.17	0.35	0.32	0.11	0.13
Avail Cap(c_a), veh/h	158	1953	588	356	2365	663	394	576	481	351	527	476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	39.2	25.0	42.2	32.1	17.9	38.4	33.3	35.3	39.0	32.7	32.8
Incr Delay (d2), s/veh	3.4	19.5	0.4	29.6	48.3	0.8	2.4	0.6	2.0	2.4	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	26.8	1.7	14.0	38.8	3.2	4.3	2.7	4.9	3.5	1.6	1.7
LnGrp Delay(d),s/veh	34.5	58.7	25.4	71.8	80.4	18.7	40.9	33.9	37.3	41.4	33.1	33.4
LnGrp LOS	C	E	C	E	F	B	D	C	D	D	C	C
Approach Vol, veh/h		2099			3047			402			233	
Approach Delay, s/veh		56.6			76.4			37.7			37.2	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	25.0	58.2		46.8	10.6	72.6		46.8
Change Period (Y+Rc), s	4.0	6.8		* 7.4	4.0	6.8		* 7.4
Max Green Setting (Gmax), s	22.0	50.4		* 39	7.7	64.7		* 39
Max Q Clear Time (g_c+I1), s	20.8	53.1		17.4	5.5	67.8		17.6
Green Ext Time (p_c), s	0.2	0.0		2.2	0.0	0.0		1.4

Intersection Summary		
HCM 2010 Ctrl Delay		65.0
HCM 2010 LOS		E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	89	102	244	32	51	117
Future Volume (vph)	89	102	244	32	51	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.984		0.906	
Flt Protected		0.977			0.985	
Satd. Flow (prot)	0	1624	1746	0	1560	0
Flt Permitted		0.977			0.985	
Satd. Flow (perm)	0	1624	1746	0	1560	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		120.2	260.2		319.6	
Travel Time (s)		8.7	18.7		23.0	
Confl. Peds. (#/hr)					4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	25%	5%	8%	0%	8%	9%
Adj. Flow (vph)	101	116	277	36	58	133
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	217	313	0	191	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	45.1%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	89	102	244	32	51	117
Future Vol, veh/h	89	102	244	32	51	117
Conflicting Peds, #/hr	0	0	0	0	4	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	88	88	88	88	88	88
Heavy Vehicles, %	25	5	8	0	8	9
Mvmt Flow	101	116	277	36	58	133

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	313	0	-	0	617	295
Stage 1	-	-	-	-	295	-
Stage 2	-	-	-	-	322	-
Critical Hdwy	4.35	-	-	-	6.48	6.29
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.425	-	-	-	3.572	3.381
Pot Cap-1 Maneuver	1128	-	-	-	444	728
Stage 1	-	-	-	-	742	-
Stage 2	-	-	-	-	721	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1128	-	-	-	401	728
Mov Cap-2 Maneuver	-	-	-	-	401	-
Stage 1	-	-	-	-	671	-
Stage 2	-	-	-	-	721	-

Approach	EB	WB	SB
HCM Control Delay, s	4	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1128	-	-	-	584
HCM Lane V/C Ratio	0.09	-	-	-	0.327
HCM Control Delay (s)	8.5	0	-	-	14.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.3	-	-	-	1.4

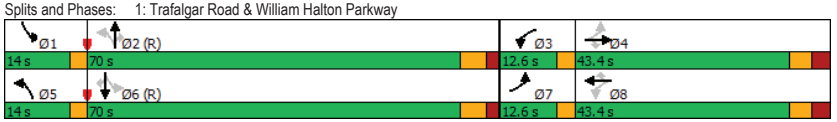
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	360	661	231	164	1068	49	393	1572	99	278	1073	157
Future Volume (vph)	360	661	231	164	1068	49	393	1572	99	278	1073	157
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4262	1553	1687	4515	1429
Flt Permitted	0.110			0.190			0.144			0.063		
Satd. Flow (perm)	195	3610	1583	361	3374	1553	274	4262	1553	112	4515	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			195			77			78			162
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	371	681	238	169	1101	51	405	1621	102	287	1106	162
Shared Lane Traffic (%)												
Lane Group Flow (vph)	371	681	238	169	1101	51	405	1621	102	287	1106	162
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	12.6	43.4	43.4	12.6	43.4	43.4	14.0	70.0	70.0	14.0	70.0	70.0
Total Split (%)	9.0%	31.0%	31.0%	9.0%	31.0%	31.0%	10.0%	50.0%	50.0%	10.0%	50.0%	50.0%
Maximum Green (s)	9.6	36.4	36.4	9.6	36.4	36.4	11.0	63.1	63.1	11.0	63.1	63.1
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	50.0	36.4	36.4	50.0	36.4	36.4	78.0	63.1	63.1	78.0	63.1	63.1
Actuated g/C Ratio	0.36	0.26	0.26	0.36	0.26	0.26	0.56	0.45	0.45	0.56	0.45	0.45
v/c Ratio	2.17	0.73	0.43	0.74	1.26	0.11	1.49	0.84	0.14	1.54	0.54	0.22
Control Delay	566.6	52.5	11.9	52.0	166.8	3.5	259.6	39.2	7.5	298.2	29.2	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	566.6	52.5	11.9	52.0	166.8	3.5	259.6	39.2	7.5	298.2	29.2	3.9
LOS	F	D	B	D	F	A	F	D	A	F	C	A
Approach Delay		192.9			145.8			79.7			76.2	
Approach LOS		F			F			E			E	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.17
Intersection Signal Delay: 115.9 Intersection LOS: F
Intersection Capacity Utilization 113.5% ICU Level of Service H
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 1: Trafalgar Road & William Halton Parkway



Queues
1: Trafalgar Road & William Halton Parkway

Future Background 10 Year
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	371	681	238	169	1101	51	405	1621	102	287	1106	162
v/c Ratio	2.17	0.73	0.43	0.74	1.26	0.11	1.49	0.84	0.14	1.54	0.54	0.22
Control Delay	566.6	52.5	11.9	52.0	166.8	3.5	259.6	39.2	7.5	298.2	29.2	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	566.6	52.5	11.9	52.0	166.8	3.5	259.6	39.2	7.5	298.2	29.2	3.9
Queue Length 50th (m)	~156.6	95.7	9.6	33.6	~210.7	0.0	~122.8	171.6	3.9	~101.5	96.2	0.0
Queue Length 95th (m)	#222.8	119.1	33.8	#59.1	#255.0	5.1	#190.8	197.0	14.9	#161.6	112.7	13.2
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	171	938	555	227	877	460	272	1920	742	186	2034	733
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.17	0.73	0.43	0.74	1.26	0.11	1.49	0.84	0.14	1.54	0.54	0.22

Intersection Summary

~ 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.

HCM 2010 Signalized Intersection Summary
1: Trafalgar Road & William Halton Parkway

Future Background 10 Year
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	360	661	231	164	1068	49	393	1572	99	278	1073	157
Future Volume (veh/h)	360	661	231	164	1068	49	393	1572	99	278	1073	157
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	371	681	238	169	1101	51	405	1621	102	287	1106	162
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	167	939	412	230	877	404	315	1921	700	215	2035	644
Arrive On Green	0.07	0.26	0.26	0.07	0.26	0.26	0.08	0.45	0.45	0.08	0.45	0.45
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4262	1553	1691	4515	1429
Grp Volume(v), veh/h	371	681	238	169	1101	51	405	1621	102	287	1106	162
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1421	1553	1691	1505	1429
Q Serve(g_s), s	9.6	24.1	18.3	9.6	36.4	3.5	11.0	47.2	5.4	11.0	25.0	9.8
Cycle Q Clear(g_c), s	9.6	24.1	18.3	9.6	36.4	3.5	11.0	47.2	5.4	11.0	25.0	9.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	939	412	230	877	404	315	1921	700	215	2035	644
V/C Ratio(X)	2.22	0.73	0.58	0.74	1.26	0.13	1.29	0.84	0.15	1.34	0.54	0.25
Avail Cap(c_a), veh/h	167	939	412	230	877	404	315	1921	700	215	2035	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	47.2	45.1	37.9	51.8	39.6	31.7	34.1	22.6	36.2	28.0	23.8
Incr Delay (d2), s/veh	566.3	3.5	3.2	11.6	124.1	0.3	151.3	4.7	0.4	179.6	1.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	28.3	12.5	8.4	5.5	32.1	1.5	19.9	19.3	2.4	19.0	10.5	4.0
LnGrp Delay(d),s/veh	607.8	50.7	48.3	49.5	175.9	39.9	182.9	38.8	23.0	215.8	29.0	24.8
LnGrp LOS	F	D	D	D	F	D	F	D	C	F	C	C
Approach Vol, veh/h		1290			1321			2128			1555	
Approach Delay, s/veh		210.5			154.5			65.5			63.0	
Approach LOS		F			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	70.0	12.6	43.4	14.0	70.0	12.6	43.4
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	11.0	* 63	9.6	36.4	11.0	* 63	9.6	36.4
Max Q Clear Time (g_c+I1), s	13.0	49.2	11.6	26.1	13.0	27.0	11.6	38.4
Green Ext Time (p_c), s	0.0	12.5	0.0	6.5	0.0	21.6	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	113.3
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

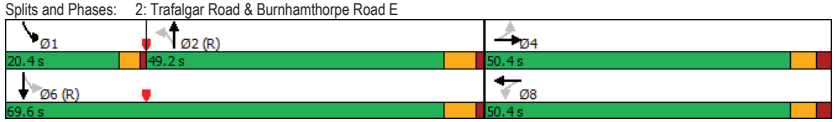
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	189	303	76	317	174	123	82	1579	115	149	1155	142
Future Volume (vph)	189	303	76	317	174	123	82	1579	115	149	1155	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.80	*0.80	1.00	*0.80	*0.80
Frt		0.970			0.938			0.990			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1793	0	1805	1741	0	1770	4201	0	1805	4176	0
Flt Permitted	0.427			0.322			0.124			0.077		
Satd. Flow (perm)	788	1793	0	612	1741	0	231	4201	0	146	4176	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			34			9			23	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	208	333	84	348	191	135	90	1735	126	164	1269	156
Shared Lane Traffic (%)												
Lane Group Flow (vph)	208	417	0	348	326	0	90	1861	0	164	1425	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		7.0	20.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		26.0	26.0		11.0	26.0	
Total Split (s)	50.4	50.4		50.4	50.4		49.2	49.2		20.4	69.6	
Total Split (%)	42.0%	42.0%		42.0%	42.0%		41.0%	41.0%		17.0%	58.0%	
Maximum Green (s)	44.4	44.4		44.4	44.4		43.2	43.2		16.4	63.6	
Yellow Time (s)	3.7	3.7		3.7	3.7		4.6	4.6		3.0	4.6	
All-Red Time (s)	2.3	2.3		2.3	2.3		1.4	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	44.4	44.4		44.4	44.4		47.9	47.9		65.6	63.6	
Actuated g/C Ratio	0.37	0.37		0.37	0.37		0.40	0.40		0.55	0.53	
v/c Ratio	0.71	0.62		1.54	0.49		0.98	1.11		0.68	0.64	
Control Delay	48.1	34.9		293.4	28.9		126.3	92.2		36.6	21.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	48.1	34.9		293.4	28.9		126.3	92.2		36.6	21.4	
LOS	D	C		F	C		F	F		D	C	
Approach Delay		39.3			165.5			93.8			22.9	
Approach LOS		D			F			F			C	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.54
Intersection Signal Delay: 73.5 Intersection LOS: E
Intersection Capacity Utilization 100.3% ICU Level of Service G
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	208	417	348	326	90	1861	164	1425
v/c Ratio	0.71	0.62	1.54	0.49	0.98	1.11	0.68	0.64
Control Delay	48.1	34.9	293.4	28.9	126.3	92.2	36.6	21.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.1	34.9	293.4	28.9	126.3	92.2	36.6	21.4
Queue Length 50th (m)	43.8	81.4	~121.1	55.0	22.4	~220.2	21.8	99.1
Queue Length 95th (m)	#81.6	117.0	#180.9	83.4	#61.6	#277.5	44.7	117.9
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	291	670	226	665	92	1682	306	2224
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.62	1.54	0.49	0.98	1.11	0.54	0.64

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	303	76	317	174	123	82	1579	115	149	1155	142
Future Volume (veh/h)	189	303	76	317	174	123	82	1579	115	149	1155	142
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1848	1900	1900	1856	1900	1863	1768	1900	1900	1768	1900
Adj Flow Rate, veh/h	208	333	84	348	191	135	90	1735	126	164	1269	156
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	293	527	133	235	375	265	177	1801	131	196	2129	262
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.43	0.43	0.43	0.07	0.53	0.53
Sat Flow, veh/h	1039	1425	360	985	1014	716	375	4236	307	1810	4016	494
Grp Volume(v), veh/h	208	0	417	348	0	326	90	1158	703	164	894	531
Grp Sat Flow(s),veh/h/ln	1039	0	1785	985	0	1730	375	1415	1714	1810	1415	1681
Q Serve(g_s), s	23.3	0.0	23.0	21.4	0.0	17.6	26.1	47.8	48.0	6.3	26.0	26.1
Cycle Q Clear(g_c), s	40.9	0.0	23.0	44.4	0.0	17.6	39.5	47.8	48.0	6.3	26.0	26.1
Prop In Lane	1.00		0.20	1.00		0.41	1.00		0.18	1.00		0.29
Lane Grp Cap(c), veh/h	293	0	660	235	0	640	177	1203	729	196	1499	891
V/C Ratio(X)	0.71	0.00	0.63	1.48	0.00	0.51	0.51	0.96	0.97	0.84	0.60	0.60
Avail Cap(c_a), veh/h	293	0	660	235	0	640	177	1203	729	314	1499	891
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	0.0	31.1	52.0	0.0	29.3	37.3	33.6	33.6	29.7	19.4	19.4
Incr Delay (d2), s/veh	7.8	0.0	1.9	237.2	0.0	0.7	10.0	18.4	25.8	10.4	1.8	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	0.0	11.7	23.3	0.0	8.5	3.2	21.7	27.9	5.9	10.4	12.7
LnGrp Delay(d),s/veh	53.0	0.0	33.0	289.3	0.0	30.0	47.3	52.0	59.5	40.1	21.1	22.3
LnGrp LOS	D		C	F		C	D	D	E	D	C	C
Approach Vol, veh/h		625			674			1951			1589	
Approach Delay, s/veh		39.7			163.9			54.5			23.5	
Approach LOS		D			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	12.6	57.0		50.4		69.6		50.4
Change Period (Y+Rc), s	4.0	* 6		6.0		* 6		6.0
Max Green Setting (Gmax), s	16.4	* 43		44.4		* 64		44.4
Max Q Clear Time (g_c+I1), s	8.3	50.0		42.9		28.1		46.4
Green Ext Time (p_c), s	0.4	0.0		0.7		24.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	57.6
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	6	66	61	5	148	33	1558	40	133	1459	13
Future Volume (vph)	37	6	66	61	5	148	33	1558	40	133	1459	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.863			0.855				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3054	0	1410	2970	0	1770	4262	1404	1671	4262	1583
Flt Permitted	0.651			0.703			0.117			0.102		
Satd. Flow (perm)	1213	3054	0	1044	2970	0	218	4262	1404	179	4262	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		58			47				40			23
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		175.7			120.2			286.4			537.5	
Travel Time (s)		12.7			8.7			12.9			24.2	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Heavy Vehicles (%)	2%	2%	2%	28%	2%	4%	2%	7%	15%	8%	7%	2%
Adj. Flow (vph)	40	7	72	64	5	154	36	1623	42	139	1520	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	79	0	64	159	0	36	1623	42	139	1520	14
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

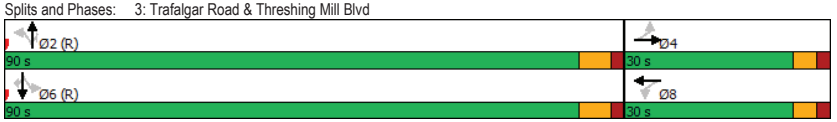
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		41.6	41.6	41.6	41.6	41.6	41.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0					0	0	0	0	0	0
Act Effct Green (s)	13.4	13.4		13.4	13.4		94.5	94.5	94.5	94.5	94.5	94.5
Actuated g/C Ratio	0.11	0.11		0.11	0.11		0.79	0.79	0.79	0.79	0.79	0.79
v/c Ratio	0.30	0.20		0.55	0.43		0.21	0.48	0.04	0.99	0.45	0.01
Control Delay	53.2	18.4		67.1	37.5		3.7	1.5	0.2	91.4	2.6	0.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.2	18.4		67.1	37.5		3.7	1.5	0.2	91.4	2.6	0.2
LOS	D	B		E	D		A	A	A	F	A	A
Approach Delay		30.1			46.0			1.5			10.0	
Approach LOS		C			D			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 13.2 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 8.9 Intersection LOS: A
Intersection Capacity Utilization 79.4% ICU Level of Service D
Analysis Period (min) 15

* User Entered Value

Splits and Phases: 3: Trafalgar Road & Threshing Mill Blvd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	40	79	64	159	36	1623	42	139	1520	14
v/c Ratio	0.30	0.20	0.55	0.43	0.21	0.48	0.04	0.99	0.45	0.01
Control Delay	53.2	18.4	67.1	37.5	3.7	1.5	0.2	91.4	2.6	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.2	18.4	67.1	37.5	3.7	1.5	0.2	91.4	2.6	0.2
Queue Length 50th (m)	9.3	2.5	15.4	13.7	0.6	10.7	0.2	15.7	18.9	0.0
Queue Length 95th (m)	19.8	9.7	29.2	23.7	m1.4	13.7	m0.2	#81.1	30.9	m0.1
Internal Link Dist (m)		151.7		96.2		262.4			513.5	
Turn Bay Length (m)	25.0		25.0		75.0		45.0	65.0		45.0
Base Capacity (vph)	247	669	213	643	171	3356	1114	141	3356	1251
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.12	0.30	0.25	0.21	0.48	0.04	0.99	0.45	0.01

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	6	66	61	5	148	33	1558	40	133	1459	13
Future Volume (veh/h)	37	6	66	61	5	148	33	1558	40	133	1459	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1484	1828	1900	1863	1776	1652	1759	1776	1863
Adj Flow Rate, veh/h	40	7	72	64	5	154	36	1623	42	139	1520	14
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	2	2	2	28	2	4	2	7	15	8	7	2
Cap, veh/h	123	257	230	170	253	226	314	3212	1059	272	3212	1193
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	1.00	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1222	1770	1583	1047	1737	1554	337	4262	1404	281	4262	1583
Grp Volume(v), veh/h	40	7	72	64	5	154	36	1623	42	139	1520	14
Grp Sat Flow(s),veh/h/ln	1222	1770	1583	1047	1737	1554	337	1421	1404	281	1421	1583
Q Serve(g_s), s	3.9	0.4	4.9	7.0	0.3	11.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	15.1	0.4	4.9	11.9	0.3	11.3	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	123	257	230	170	253	226	314	3212	1059	272	3212	1193
V/C Ratio(X)	0.33	0.03	0.31	0.38	0.02	0.68	0.11	0.51	0.04	0.51	0.47	0.01
Avail Cap(c_a), veh/h	195	361	323	231	355	317	314	3212	1059	272	3212	1193
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	44.0	45.9	51.2	43.9	48.6	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.5	0.0	0.8	1.4	0.0	3.6	0.6	0.5	0.1	6.7	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.2	2.2	2.1	0.1	5.1	0.1	0.1	0.0	0.5	0.1	0.0
LnGrp Delay(d),s/veh	57.3	44.0	46.7	52.6	44.0	52.2	0.6	0.5	0.1	6.7	0.5	0.0
LnGrp LOS	E	D	D	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		119			223			1701			1673	
Approach Delay, s/veh		50.1			52.2			0.5			1.0	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		97.0		23.0		97.0		23.0
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		2.0		17.1		2.0		13.9
Green Ext Time (p_c), s		54.3		0.3		58.4		1.0

Intersection Summary

HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

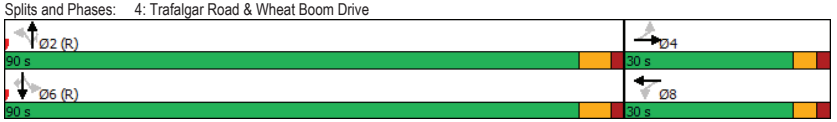
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	19	112	0	137	0	1490	58	42	1700	0
Future Volume (vph)	0	0	19	112	0	137	0	1490	58	42	1700	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3008	0	1327	2379	0	1863	4343	1292	1556	4262	1863
Flt Permitted				0.743						0.100		
Satd. Flow (perm)	1863	3008	0	1038	2379	0	1863	4343	1292	164	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33			49				60			
Link Speed (k/h)		50			50			60			80	
Link Distance (m)		170.2			342.3			409.5			286.4	
Travel Time (s)		12.3			24.6			24.6			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Heavy Vehicles (%)	2%	2%	2%	36%	2%	29%	2%	5%	25%	16%	7%	2%
Adj. Flow (vph)	0	0	21	120	0	147	0	1602	62	45	1828	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	0	120	147	0	0	1602	62	45	1828	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0			
Pedestrian Calls (#/hr)	0	0					0	0	0			
Act Effct Green (s)		18.4		18.4	18.4			89.5	89.5	89.5	89.5	
Actuated g/C Ratio		0.15		0.15	0.15			0.75	0.75	0.75	0.75	
v/c Ratio		0.04		0.75	0.36			0.49	0.06	0.37	0.58	
Control Delay		7.1		75.8	31.2			7.3	1.6	15.5	6.5	
Queue Delay		0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay		7.1		75.8	31.2			7.3	1.6	15.5	6.5	
LOS		A		E	C			A	A	B	A	
Approach Delay		7.1			51.2			7.1			6.7	
Approach LOS		A			D			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 10.0 Intersection LOS: B
Intersection Capacity Utilization 57.9% ICU Level of Service B
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	21	120	147	1602	62	45	1828
v/c Ratio	0.04	0.75	0.36	0.49	0.06	0.37	0.58
Control Delay	7.1	75.8	31.2	7.3	1.6	15.5	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	75.8	31.2	7.3	1.6	15.5	6.5
Queue Length 50th (m)	0.0	28.6	11.3	59.4	0.1	2.3	47.2
Queue Length 95th (m)	2.4	48.4	20.6	84.5	4.3	8.6	72.6
Internal Link Dist (m)	146.2		318.3	385.5			262.4
Turn Bay Length (m)		25.0			45.0	65.0	
Base Capacity (vph)	640	211	524	3239	978	122	3178
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.57	0.28	0.49	0.06	0.37	0.58

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	19	112	0	137	0	1490	58	42	1700	0
Future Volume (veh/h)	0	0	19	112	0	137	0	1490	58	42	1700	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1397	1473	1900	1863	1810	1520	1638	1776	1863
Adj Flow Rate, veh/h	0	0	21	120	0	147	0	1602	62	45	1828	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Percent Heavy Veh, %	2	2	2	36	2	29	2	5	25	16	7	2
Cap, veh/h	60	264	236	203	209	187	60	3256	969	218	3196	1187
Arrive On Green	0.00	0.00	0.15	0.15	0.00	0.15	0.00	0.75	0.75	1.00	1.00	0.00
Sat Flow, veh/h	1236	1770	1583	1039	1399	1252	254	4343	1292	262	4262	1583
Grp Volume(v), veh/h	0	0	21	120	0	147	0	1602	62	45	1828	0
Grp Sat Flow(s),veh/h/ln	1236	1770	1583	1039	1399	1252	254	1448	1292	262	1421	1583
Q Serve(g_s), s	0.0	0.0	1.4	13.5	0.0	13.6	0.0	17.5	1.5	5.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.4	14.9	0.0	13.6	0.0	17.5	1.5	22.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	264	236	203	209	187	60	3256	969	218	3196	1187
V/C Ratio(X)	0.00	0.00	0.09	0.59	0.00	0.79	0.00	0.49	0.06	0.21	0.57	0.00
Avail Cap(c_a), veh/h	128	361	323	260	286	256	60	3256	969	218	3196	1187
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.89	0.89	0.00
Uniform Delay (d), s/veh	0.0	0.0	44.0	50.4	0.0	49.2	0.0	5.9	3.9	2.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.2	2.7	0.0	10.6	0.0	0.5	0.1	1.9	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	4.0	0.0	5.2	0.0	7.1	0.6	0.5	0.2	0.0
LnGrp Delay(d),s/veh	0.0	0.0	44.2	53.1	0.0	59.8	0.0	6.5	4.1	4.1	0.7	0.0
LnGrp LOS			D	D		E		A	A	A	A	
Approach Vol, veh/h		21			267			1664			1873	
Approach Delay, s/veh		44.2			56.8			6.4			0.7	
Approach LOS		D			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		96.6		23.4		96.6		23.4
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		19.5		3.4		24.8		16.9
Green Ext Time (p_c), s		24.9		0.1		32.4		1.0

Intersection Summary		
HCM 2010 Ctrl Delay		7.4
HCM 2010 LOS		A

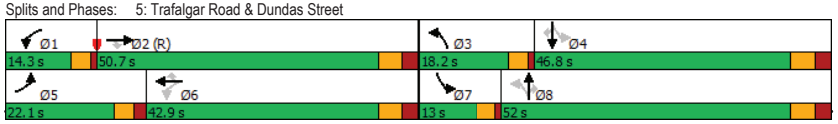
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	457	2062	280	226	1230	130	214	994	149	302	1111	327
Future Volume (vph)	457	2062	280	226	1230	130	214	994	149	302	1111	327
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98				1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	4343	1538	1736	4343	1524
Flt Permitted	0.950			0.110			0.092			0.147		
Satd. Flow (perm)	3400	5085	1557	195	4715	1292	168	4343	1538	269	4343	1497
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			200			172			140			259
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	466	2104	286	231	1255	133	218	1014	152	308	1134	334
Shared Lane Traffic (%)												
Lane Group Flow (vph)	466	2104	286	231	1255	133	218	1014	152	308	1134	334
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5	16.5	11.0	16.5	16.5
Total Split (s)	22.1	50.7	50.7	14.3	42.9	42.9	18.2	52.0	52.0	13.0	46.8	46.8
Total Split (%)	17.0%	39.0%	39.0%	11.0%	33.0%	33.0%	14.0%	40.0%	40.0%	10.0%	36.0%	36.0%
Maximum Green (s)	17.1	44.3	44.3	10.3	36.5	36.5	14.2	45.5	45.5	9.0	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	18.2	44.3	44.3	50.3	36.5	36.5	59.9	44.4	44.4	50.8	39.3	39.3
Actuated g/C Ratio	0.14	0.34	0.34	0.39	0.28	0.28	0.46	0.34	0.34	0.39	0.30	0.30
v/c Ratio	0.98	1.21	0.43	1.12	0.95	0.27	0.88	0.68	0.25	1.50	0.86	0.53
Control Delay	91.9	140.0	12.2	144.5	47.4	1.9	65.2	39.4	6.8	270.6	50.7	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.9	140.0	12.2	144.5	47.4	1.9	65.2	39.4	6.8	270.6	50.7	12.0
LOS	F	F	B	F	D	A	E	D	A	F	D	B
Approach Delay		119.3			57.5			39.9			81.6	
Approach LOS		F			E			D			F	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 18.2 (14%), Referenced to phase 2:EBT, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.50			
Intersection Signal Delay: 83.0		Intersection LOS: F	
Intersection Capacity Utilization 105.7%		ICU Level of Service G	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 5: Trafalgar Road & Dundas Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	466	2104	286	231	1255	133	218	1014	152	308	1134	334
v/c Ratio	0.98	1.21	0.43	1.12	0.95	0.27	0.88	0.68	0.25	1.50	0.86	0.53
Control Delay	91.9	140.0	12.2	144.5	47.4	1.9	65.2	39.4	6.8	270.6	50.7	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	91.9	140.0	12.2	144.5	47.4	1.9	65.2	39.4	6.8	270.6	50.7	12.0
Queue Length 50th (m)	~70.0	~253.9	16.1	~61.0	123.5	1.2	40.9	96.2	2.1	~89.4	118.9	14.7
Queue Length 95th (m)	#105.2	#284.1	41.1	#115.9	#153.4	2.3	#87.3	115.1	17.3	#149.7	141.2	43.7
Internal Link Dist (m)		530.9			391.5			307.2			385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Base Capacity (vph)	476	1732	662	206	1323	486	248	1520	629	206	1346	642
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.98	1.21	0.43	1.12	0.95	0.27	0.88	0.67	0.24	1.50	0.84	0.52

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	457	2062	280	226	1230	130	214	994	149	302	1111	327
Future Volume (veh/h)	457	2062	280	226	1230	130	214	994	149	302	1111	327
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1810	1827	1810	1792
Adj Flow Rate, veh/h	466	2104	286	231	1255	133	218	1014	152	308	1134	334
Adj No. of Lanes	2	3	1	1	3	1	1	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	448	1831	568	189	1415	386	248	1436	506	235	1302	454
Arrive On Green	0.13	0.36	0.36	0.08	0.30	0.30	0.10	0.33	0.33	0.07	0.30	0.30
Sat Flow, veh/h	3408	5085	1578	1691	4715	1287	1740	4343	1531	1740	4343	1516
Grp Volume(v), veh/h	466	2104	286	231	1255	133	218	1014	152	308	1134	334
Grp Sat Flow(s),veh/h/ln	1704	1695	1578	1691	1572	1287	1740	1448	1531	1740	1448	1516
Q Serve(g_s), s	17.1	46.8	18.4	10.3	33.0	10.5	10.9	26.5	9.6	9.0	32.2	25.7
Cycle Q Clear(g_c), s	17.1	46.8	18.4	10.3	33.0	10.5	10.9	26.5	9.6	9.0	32.2	25.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	448	1831	568	189	1415	386	248	1436	506	235	1302	454
V/C Ratio(X)	1.04	1.15	0.50	1.22	0.89	0.34	0.88	0.71	0.30	1.31	0.87	0.74
Avail Cap(c_a), veh/h	448	1831	568	189	1415	386	264	1520	536	235	1346	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	41.6	32.5	34.7	43.4	35.5	31.6	38.0	32.3	40.7	43.1	40.9
Incr Delay (d2), s/veh	53.1	73.9	3.2	137.0	7.9	1.5	26.3	1.5	0.4	165.8	6.5	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	34.4	8.5	14.0	15.3	3.9	7.0	10.8	4.1	16.7	13.6	11.5
LnGrp Delay(d),s/veh	109.6	115.5	35.7	171.7	51.2	37.0	57.9	39.5	32.7	206.5	49.6	46.9
LnGrp LOS	F	F	D	F	D	D	E	D	C	F	D	D
Approach Vol, veh/h		2856			1619			1384			1776	
Approach Delay, s/veh		106.5			67.3			41.7			76.3	
Approach LOS		F			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	53.2	17.0	45.5	22.1	45.4	13.0	49.5
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	10.3	44.3	14.2	40.3	17.1	36.5	9.0	45.5
Max Q Clear Time (g_c+I1), s	12.3	48.8	12.9	34.2	19.1	35.0	11.0	28.5
Green Ext Time (p_c), s	0.0	0.0	0.1	4.8	0.0	1.4	0.0	9.2

Intersection Summary	
HCM 2010 Ctrl Delay	79.4
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	2456	40	164	1441	85	71	44	186	123	95	121
Future Volume (vph)	45	2456	40	164	1441	85	71	44	186	123	95	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00		0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.916	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3141	0
Flt Permitted	0.145			0.059			0.608			0.726		
Satd. Flow (perm)	265	4940	1470	110	4673	1281	1104	1900	1577	1363	3141	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			70			90			136		32	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	48	2613	43	174	1533	90	76	47	198	131	101	129
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	2613	43	174	1533	90	76	47	198	131	230	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	2	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	26.8	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	70.2	70.2	70.2	13.0	83.2	83.2	46.8	46.8	46.8	46.8	46.8	
Total Split (%)	54.0%	54.0%	54.0%	10.0%	64.0%	64.0%	36.0%	36.0%	36.0%	36.0%	36.0%	
Maximum Green (s)	63.4	63.4	63.4	9.0	76.4	76.4	39.4	39.4	39.4	39.4	39.4	
Yellow Time (s)	4.2	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.6	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.8	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	24.0	24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	63.4	63.4	63.4	79.2	76.4	76.4	39.4	39.4	39.4	39.4	39.4	
Actuated g/C Ratio	0.49	0.49	0.49	0.61	0.59	0.59	0.30	0.30	0.30	0.30	0.30	
v/c Ratio	0.37	1.08	0.06	0.96	0.56	0.11	0.23	0.08	0.35	0.32	0.24	
Control Delay	21.0	69.7	2.4	88.1	17.4	2.6	36.2	33.0	13.5	37.6	29.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	21.0	69.7	2.4	88.1	17.4	2.6	36.2	33.0	13.5	37.6	29.8	
LOS	C	E	A	F	B	A	D	C	B	D	C	
Approach Delay		67.8			23.5			21.8			32.7	
Approach LOS		E			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 9.1 (7%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.08			
Intersection Signal Delay: 47.1		Intersection LOS: D	
Intersection Capacity Utilization 118.7%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 6: Postridge Drive & Dundas Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	48	2613	43	174	1533	90	76	47	198	131	230
v/c Ratio	0.37	1.08	0.06	0.96	0.56	0.11	0.23	0.08	0.35	0.32	0.24
Control Delay	21.0	69.7	2.4	88.1	17.4	2.6	36.2	33.0	13.5	37.6	29.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	69.7	2.4	88.1	17.4	2.6	36.2	33.0	13.5	37.6	29.8
Queue Length 50th (m)	5.0	~278.4	0.4	30.3	88.4	0.0	15.3	9.1	12.1	27.3	20.8
Queue Length 95th (m)	m4.9	m95.8	m0.3	#77.7	102.2	7.3	29.2	18.8	32.8	45.9	32.1
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	129	2409	752	181	2746	789	334	575	572	413	974
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	1.08	0.06	0.96	0.56	0.11	0.23	0.08	0.35	0.32	0.24

Intersection Summary

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	2456	40	164	1441	85	71	44	186	123	95	121
Future Volume (veh/h)	45	2456	40	164	1441	85	71	44	186	123	95	121
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1825	1900
Adj Flow Rate, veh/h	48	2613	43	174	1533	90	76	47	198	131	101	129
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	173	2409	726	178	2746	770	323	576	481	379	525	466
Arrive On Green	0.49	0.49	0.49	0.07	0.59	0.59	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	304	4940	1489	1774	4673	1310	1118	1900	1586	1135	1734	1539
Grp Volume(v), veh/h	48	2613	43	174	1533	90	76	47	198	131	101	129
Grp Sat Flow(s),veh/h/ln	304	1647	1489	1774	1558	1310	1118	1900	1586	1135	1734	1539
Q Serve(g_s), s	15.0	63.4	2.0	8.7	26.2	4.0	7.2	2.3	12.9	12.1	5.6	8.3
Cycle Q Clear(g_c), s	28.2	63.4	2.0	8.7	26.2	4.0	15.5	2.3	12.9	14.4	5.6	8.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	173	2409	726	178	2746	770	323	576	481	379	525	466
V/C Ratio(X)	0.28	1.08	0.06	0.98	0.56	0.12	0.24	0.08	0.41	0.35	0.19	0.28
Avail Cap(c_a), veh/h	173	2409	726	178	2746	770	323	576	481	379	525	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	33.3	17.6	41.3	16.4	11.9	40.4	32.4	36.1	37.5	33.5	34.5
Incr Delay (d2), s/veh	4.0	46.0	0.2	60.3	0.8	0.3	1.7	0.3	2.6	2.5	0.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	39.0	0.8	9.2	11.4	1.5	2.4	1.2	6.0	4.0	2.8	3.7
LnGrp Delay(d),s/veh	33.0	79.3	17.7	101.5	17.3	12.2	42.1	32.6	38.7	40.0	34.3	35.9
LnGrp LOS	C	F	B	F	B	B	D	C	D	D	C	D
Approach Vol, veh/h		2704			1797			321			361	
Approach Delay, s/veh		77.5			25.2			38.6			37.0	
Approach LOS		E			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	13.0	70.2		46.8		83.2		46.8
Change Period (Y+Rc), s	4.0	6.8		* 7.4		6.8		* 7.4
Max Green Setting (Gmax), s	9.0	63.4		* 39		76.4		* 39
Max Q Clear Time (g_c+I1), s	10.7	65.4		17.5		28.2		16.4
Green Ext Time (p_c), s	0.0	0.0		1.7		21.7		2.4

Intersection Summary

HCM 2010 Ctrl Delay		54.1
HCM 2010 LOS		D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	60	110	115	29	45	93
Future Volume (vph)	60	110	115	29	45	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.973		0.909	
Flt Protected		0.983			0.984	
Satd. Flow (prot)	0	1667	1738	0	1564	0
Flt Permitted		0.983			0.984	
Satd. Flow (perm)	0	1667	1738	0	1564	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		120.2	260.2		319.6	
Travel Time (s)		8.7	18.7		23.0	
Confl. Peds. (#/hr)					4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	25%	5%	8%	0%	8%	9%
Adj. Flow (vph)	68	125	131	33	51	106
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	193	164	0	157	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 35.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	60	110	115	29	45	93
Future Vol, veh/h	60	110	115	29	45	93
Conflicting Peds, #/hr	0	0	0	0	4	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	88	88	88	88	88	88
Heavy Vehicles, %	25	5	8	0	8	9
Mvmt Flow	68	125	131	33	51	106

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	164	0	-	0	413	148
Stage 1	-	-	-	-	148	-
Stage 2	-	-	-	-	265	-
Critical Hdwy	4.35	-	-	-	6.48	6.29
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.425	-	-	-	3.572	3.381
Pot Cap-1 Maneuver	1286	-	-	-	584	881
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	766	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1286	-	-	-	551	881
Mov Cap-2 Maneuver	-	-	-	-	551	-
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	766	-

Approach	EB	WB	SB
HCM Control Delay, s	2.8	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1286	-	-	-	737
HCM Lane V/C Ratio	0.053	-	-	-	0.213
HCM Control Delay (s)	8	0	-	-	11.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.8

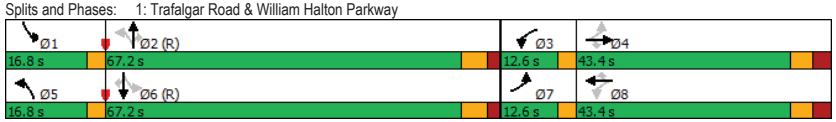
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	393	318	126	583	1797	34	354	2020	86	216	1448	610
Future Volume (vph)	393	318	126	583	1797	34	354	2020	86	216	1448	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4262	1553	1687	4515	1429
Flt Permitted	0.110			0.493			0.066			0.066		
Satd. Flow (perm)	195	3610	1583	937	3374	1553	125	4262	1553	117	4515	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			130			77			78			181
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	405	328	130	601	1853	35	365	2082	89	223	1493	629
Shared Lane Traffic (%)												
Lane Group Flow (vph)	405	328	130	601	1853	35	365	2082	89	223	1493	629
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	12.6	43.4	43.4	12.6	43.4	43.4	16.8	67.2	67.2	16.8	67.2	67.2
Total Split (%)	9.0%	31.0%	31.0%	9.0%	31.0%	31.0%	12.0%	48.0%	48.0%	12.0%	48.0%	48.0%
Maximum Green (s)	9.6	36.4	36.4	9.6	36.4	36.4	13.8	60.3	60.3	13.8	60.3	60.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	50.0	36.4	36.4	50.0	36.4	36.4	78.0	60.3	60.3	78.0	60.3	60.3
Actuated g/C Ratio	0.36	0.26	0.26	0.36	0.26	0.26	0.56	0.43	0.43	0.56	0.43	0.43
v/c Ratio	2.37	0.35	0.26	1.53	2.11	0.08	1.55	1.13	0.12	1.02	0.77	0.88
Control Delay	653.6	43.5	7.6	280.2	531.2	0.3	298.8	105.1	6.7	103.6	37.2	40.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	653.6	43.5	7.6	280.2	531.2	0.3	298.8	105.1	6.7	103.6	37.2	40.3
LOS	F	D	A	F	F	A	F	F	A	F	D	D
Approach Delay		324.4			463.1			129.5			44.3	
Approach LOS		F			F			F			D	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.37
Intersection Signal Delay: 226.6 Intersection LOS: F
Intersection Capacity Utilization 140.7% ICU Level of Service H
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 1: Trafalgar Road & William Halton Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	405	328	130	601	1853	35	365	2082	89	223	1493	629
v/c Ratio	2.37	0.35	0.26	1.53	2.11	0.08	1.55	1.13	0.12	1.02	0.77	0.88
Control Delay	653.6	43.5	7.6	280.2	531.2	0.3	298.8	105.1	6.7	103.6	37.2	40.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	653.6	43.5	7.6	280.2	531.2	0.3	298.8	105.1	6.7	103.6	37.2	40.3
Queue Length 50th (m)	~177.5	41.2	0.0	~244.2	~450.1	0.0	~132.9	~293.2	1.8	~50.5	152.2	126.8
Queue Length 95th (m)	#245.5	55.8	16.6	#319.2	#494.0	0.0	#198.5	#327.3	12.5	#106.9	174.8	#207.0
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	171	938	507	394	877	460	235	1835	713	219	1944	718
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.37	0.35	0.26	1.53	2.11	0.08	1.55	1.13	0.12	1.02	0.77	0.88

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	393	318	126	583	1797	34	354	2020	86	216	1448	610
Future Volume (veh/h)	393	318	126	583	1797	34	354	2020	86	216	1448	610
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	405	328	130	601	1853	35	365	2082	89	223	1493	629
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	167	939	412	352	877	404	259	1836	669	218	1945	616
Arrive On Green	0.07	0.26	0.26	0.07	0.26	0.26	0.10	0.43	0.43	0.10	0.43	0.43
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4262	1553	1691	4515	1429
Grp Volume(v), veh/h	405	328	130	601	1853	35	365	2082	89	223	1493	629
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1421	1553	1691	1505	1429
Q Serve(g_s), s	9.6	10.4	9.3	9.6	36.4	2.4	13.8	60.3	4.8	13.8	39.4	60.3
Cycle Q Clear(g_c), s	9.6	10.4	9.3	9.6	36.4	2.4	13.8	60.3	4.8	13.8	39.4	60.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	939	412	352	877	404	259	1836	669	218	1945	616
V/C Ratio(X)	2.42	0.35	0.32	1.71	2.11	0.09	1.41	1.13	0.13	1.02	0.77	1.02
Avail Cap(c_a), veh/h	167	939	412	352	877	404	259	1836	669	218	1945	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	42.2	41.8	48.9	51.8	39.2	39.3	39.9	24.1	45.9	33.9	39.8
Incr Delay (d2), s/veh	656.6	0.5	0.9	330.3	504.5	0.2	206.1	67.8	0.4	66.8	3.0	41.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
%ile BackOfQ(50%),veh/ln	32.5	5.2	4.2	42.3	78.4	1.0	24.8	35.1	2.2	12.5	16.8	30.9
LnGrp Delay(d),s/veh	698.0	42.6	42.7	379.3	556.3	39.4	245.4	107.6	24.5	112.9	36.9	81.8
LnGrp LOS	F	D	D	F	F	D	F	F	C	F	D	F
Approach Vol, veh/h		863			2489			2536			2345	
Approach Delay, s/veh		350.2			506.3			124.6			56.1	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.8	67.2	12.6	43.4	16.8	67.2	12.6	43.4
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	13.8	* 60	9.6	36.4	13.8	* 60	9.6	36.4
Max Q Clear Time (g_c+I1), s	15.8	62.3	11.6	12.4	15.8	62.3	11.6	38.4
Green Ext Time (p_c), s	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	244.1
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

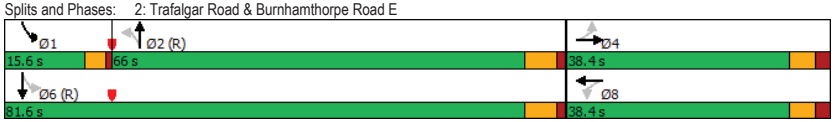
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	294	62	294	259	137	137	1924	122	194	1517	320
Future Volume (vph)	141	294	62	294	259	137	137	1924	122	194	1517	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.80	*0.80	1.00	*0.80	*0.80
Frt		0.974			0.948			0.991			0.974	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1802	0	1805	1755	0	1770	4203	0	1805	4146	0
Flt Permitted	0.163			0.231			0.066			0.062		
Satd. Flow (perm)	301	1802	0	439	1755	0	123	4203	0	118	4146	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			22			10			58	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	155	323	68	323	285	151	151	2114	134	213	1667	352
Shared Lane Traffic (%)												
Lane Group Flow (vph)	155	391	0	323	436	0	151	2248	0	213	2019	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		7.0	20.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		26.0	26.0		11.0	26.0	
Total Split (s)	38.4	38.4		38.4	38.4		66.0	66.0		15.6	81.6	
Total Split (%)	32.0%	32.0%		32.0%	32.0%		55.0%	55.0%		13.0%	68.0%	
Maximum Green (s)	32.4	32.4		32.4	32.4		60.0	60.0		11.6	75.6	
Yellow Time (s)	3.7	3.7		3.7	3.7		4.6	4.6		3.0	4.6	
All-Red Time (s)	2.3	2.3		2.3	2.3		1.4	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	32.4	32.4		32.4	32.4		60.2	60.2		77.6	75.6	
Actuated g/C Ratio	0.27	0.27		0.27	0.27		0.50	0.50		0.65	0.63	
v/c Ratio	1.91	0.79		2.74	0.89		2.48	1.06		0.90	0.77	
Control Delay	480.3	52.9		824.9	61.8		720.5	71.3		67.5	17.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	480.3	52.9		824.9	61.8		720.5	71.3		67.5	17.9	
LOS	F	D		F	E		F	E		E	B	
Approach Delay		174.2			386.5			112.1			22.6	
Approach LOS		F			F			F			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 120			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 2.74			
Intersection Signal Delay: 119.3		Intersection LOS: F	
Intersection Capacity Utilization 108.6%		ICU Level of Service G	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	155	391	323	436	151	2248	213	2019
v/c Ratio	1.91	0.79	2.74	0.89	2.48	1.06	0.90	0.77
Control Delay	480.3	52.9	824.9	61.8	720.5	71.3	67.5	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	480.3	52.9	824.9	61.8	720.5	71.3	67.5	17.9
Queue Length 50th (m)	~59.0	88.4	~136.0	99.4	~49.4	~255.3	35.4	135.5
Queue Length 95th (m)	#102.8	#135.3	#194.8	#159.9	#94.6	#293.0	#81.5	158.9
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	81	493	118	489	61	2113	239	2633
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.91	0.79	2.74	0.89	2.48	1.06	0.89	0.77

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	294	62	294	259	137	137	1924	122	194	1517	320
Future Volume (veh/h)	141	294	62	294	259	137	137	1924	122	194	1517	320
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1850	1900	1900	1852	1900	1863	1767	1900	1900	1774	1900
Adj Flow Rate, veh/h	155	323	68	323	285	151	151	2114	134	213	1667	352
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	85	400	84	127	308	163	128	2251	142	277	2331	488
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	1.00	1.00	1.00	0.07	0.63	0.63
Sat Flow, veh/h	940	1483	312	1009	1141	604	210	4277	270	1810	3700	775
Grp Volume(v), veh/h	155	0	391	323	0	436	151	1394	854	213	1275	744
Grp Sat Flow(s),veh/h/ln	940	0	1795	1009	0	1745	210	1414	1719	1810	1419	1637
Q Serve(g_s), s	3.2	0.0	24.4	8.0	0.0	29.2	38.6	0.0	0.0	6.2	36.2	37.0
Cycle Q Clear(g_c), s	32.4	0.0	24.4	32.4	0.0	29.2	63.2	0.0	0.0	6.2	36.2	37.0
Prop In Lane	1.00		0.17	1.00		0.35	1.00		0.16	1.00		0.47
Lane Grp Cap(c), veh/h	85	0	485	127	0	471	128	1488	905	277	1788	1031
V/C Ratio(X)	1.82	0.00	0.81	2.54	0.00	0.93	1.18	0.94	0.94	0.77	0.71	0.72
Avail Cap(c_a), veh/h	85	0	485	127	0	471	128	1488	905	325	1788	1031
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.5	0.0	40.9	57.9	0.0	42.6	21.3	0.0	0.0	14.5	14.9	15.1
Incr Delay (d2), s/veh	410.6	0.0	9.7	714.5	0.0	24.3	136.8	12.4	19.1	9.1	2.5	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.5	0.0	13.4	29.5	0.0	17.2	9.0	2.6	4.8	4.5	14.6	17.8
LnGrp Delay(d),s/veh	470.1	0.0	50.6	772.4	0.0	66.9	158.2	12.4	19.1	23.5	17.4	19.4
LnGrp LOS	F		D	F		E	F	B	B	C	B	B
Approach Vol, veh/h		546			759			2399			2232	
Approach Delay, s/veh		169.7			367.2			24.0			18.6	
Approach LOS		F			F			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	12.4	69.2		38.4		81.6		38.4
Change Period (Y+Rc), s	4.0	* 6		6.0		* 6		6.0
Max Green Setting (Gmax), s	11.6	* 60		32.4		* 76		32.4
Max Q Clear Time (g_c+I1), s	8.2	65.2		34.4		39.0		34.4
Green Ext Time (p_c), s	0.3	0.0		0.0		32.9		0.0

Intersection Summary

HCM 2010 Ctrl Delay	79.3	
HCM 2010 LOS	E	

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

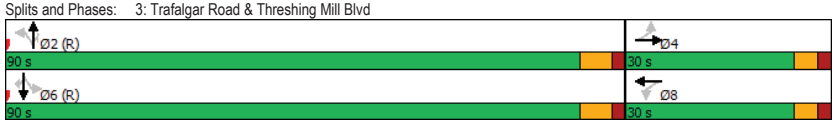
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	0	51	52	30	260	63	1904	69	90	1751	34
Future Volume (vph)	21	0	51	52	30	260	63	1904	69	90	1751	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.866				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3008	0	1410	3012	0	1770	4262	1404	1671	4262	1583
Flt Permitted	0.409			0.719			0.074			0.058		
Satd. Flow (perm)	762	3008	0	1067	3012	0	138	4262	1404	102	4262	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33			23				57			32
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		175.7			120.2			286.4			537.5	
Travel Time (s)		12.7			8.7			12.9			24.2	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Heavy Vehicles (%)	2%	2%	2%	28%	2%	4%	2%	7%	15%	8%	7%	2%
Adj. Flow (vph)	23	0	55	54	33	271	68	1983	72	94	1824	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	55	0	54	304	0	68	1983	72	94	1824	37
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		41.6	41.6	41.6	41.6	41.6	41.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0					0	0	0	0	0	0
Act Effct Green (s)	16.5	16.5		16.5	16.5		91.4	91.4	91.4	91.4	91.4	91.4
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.76	0.76	0.76	0.76	0.76	0.76
v/c Ratio	0.22	0.12		0.37	1.16dr		0.65	0.61	0.07	1.22	0.56	0.03
Control Delay	49.6	22.4		53.1	54.2		32.2	3.1	0.3	189.2	4.4	0.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.6	22.4		53.1	54.2		32.2	3.1	0.3	189.2	4.4	0.9
LOS	D	C		D	D		C	A	A	F	A	A
Approach Delay		30.4			54.0			3.9			13.2	
Approach LOS		C			D			A			B	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 20.4 (17%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.22
Intersection Signal Delay: 12.4 Intersection LOS: B
Intersection Capacity Utilization 86.5% ICU Level of Service E
Analysis Period (min) 15
* User Entered Value
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 3: Trafalgar Road & Threshing Mill Blvd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	23	55	54	304	68	1983	72	94	1824	37
v/c Ratio	0.22	0.12	0.37	1.16dr	0.65	0.61	0.07	1.22	0.56	0.03
Control Delay	49.6	22.4	53.1	54.2	32.2	3.1	0.3	189.2	4.4	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.6	22.4	53.1	54.2	32.2	3.1	0.3	189.2	4.4	0.9
Queue Length 50th (m)	5.1	2.5	12.3	35.4	2.1	25.1	0.1	~28.6	34.5	0.0
Queue Length 95th (m)	13.2	8.5	24.8	49.1	m#31.7	28.4	m0.3	#59.5	50.5	m1.3
Internal Link Dist (m)		151.7		96.2		262.4			513.5	
Turn Bay Length (m)	25.0		25.0		75.0		45.0	65.0		45.0
Base Capacity (vph)	155	640	217	633	105	3245	1082	77	3245	1213
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.09	0.25	0.48	0.65	0.61	0.07	1.22	0.56	0.03

Intersection Summary

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	0	51	52	30	260	63	1904	69	90	1751	34
Future Volume (veh/h)	21	0	51	52	30	260	63	1904	69	90	1751	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1484	1831	1900	1863	1776	1652	1759	1776	1863
Adj Flow Rate, veh/h	23	0	55	54	33	271	68	1983	72	94	1824	37
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	2	2	2	28	2	4	2	7	15	8	7	2
Cap, veh/h	99	361	323	248	355	318	155	2962	976	193	2962	1100
Arrive On Green	0.20	0.00	0.20	0.20	0.20	0.20	1.00	1.00	1.00	0.47	0.47	0.47
Sat Flow, veh/h	1071	1770	1583	1070	1739	1556	255	4262	1404	192	4262	1583
Grp Volume(v), veh/h	23	0	55	54	33	271	68	1983	72	94	1824	37
Grp Sat Flow(s),veh/h/ln	1071	1770	1583	1070	1739	1556	255	1421	1404	192	1421	1583
Q Serve(g_s), s	2.5	0.0	3.4	5.3	1.8	20.1	24.0	0.0	0.0	46.8	38.5	1.5
Cycle Q Clear(g_c), s	22.7	0.0	3.4	8.7	1.8	20.1	62.5	0.0	0.0	46.8	38.5	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	99	361	323	248	355	318	155	2962	976	193	2962	1100
V/C Ratio(X)	0.23	0.00	0.17	0.22	0.09	0.85	0.44	0.67	0.07	0.49	0.62	0.03
Avail Cap(c_a), veh/h	99	361	323	248	355	318	155	2962	976	193	2962	1100
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.74	0.74	0.74	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.9	0.0	39.4	43.0	38.7	46.0	14.4	0.0	0.0	22.3	20.1	10.2
Incr Delay (d2), s/veh	1.2	0.0	0.2	0.4	0.1	19.5	6.5	0.9	0.1	8.5	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.5	1.6	0.9	10.4	2.0	0.2	0.0	2.9	15.3	0.7
LnGrp Delay(d),s/veh	58.1	0.0	39.6	43.4	38.8	65.5	21.0	0.9	0.1	30.8	21.0	10.2
LnGrp LOS	E		D	D	D	E	C	A	A	C	C	B
Approach Vol, veh/h		78			358			2123			1955	
Approach Delay, s/veh		45.1			59.7			1.5			21.3	
Approach LOS		D			E			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		90.0		30.0		90.0		30.0
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		64.5		24.7		48.8		22.1
Green Ext Time (p_c), s		18.1		0.0		31.8		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	15.5
HCM 2010 LOS	B

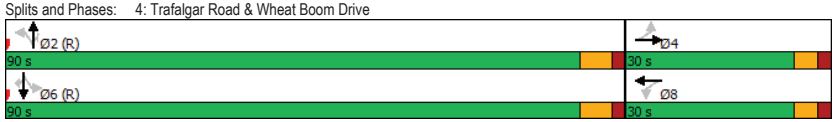
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	14	123	0	170	0	1858	140	114	1787	0
Future Volume (vph)	0	0	14	123	0	170	0	1858	140	114	1787	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3008	0	1327	2379	0	1863	4343	1292	1556	4262	1863
Flt Permitted				0.747						0.054		
Satd. Flow (perm)	1863	3008	0	1044	2379	0	1863	4343	1292	88	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33			33				118			
Link Speed (k/h)		50			50			60			80	
Link Distance (m)		170.2			342.3			409.5			286.4	
Travel Time (s)		12.3			24.6			24.6			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Heavy Vehicles (%)	2%	2%	2%	36%	2%	29%	2%	5%	25%	16%	7%	2%
Adj. Flow (vph)	0	0	15	132	0	183	0	1998	151	123	1922	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	132	183	0	0	1998	151	123	1922	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0			
Pedestrian Calls (#/hr)	0	0					0	0	0			
Act Effct Green (s)		19.3		19.3	19.3			88.6	88.6	88.6	88.6	
Actuated g/C Ratio		0.16		0.16	0.16			0.74	0.74	0.74	0.74	
v/c Ratio		0.03		0.79	0.45			0.62	0.15	1.92	0.61	
Control Delay		4.1		77.9	39.4			9.3	2.0	474.7	6.7	
Queue Delay		0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay		4.1		77.9	39.4			9.3	2.0	474.7	6.7	
LOS		A		E	D			A	A	F	A	
Approach Delay		4.1			55.6			8.8			34.9	
Approach LOS		A			E			A			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 13.2 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.92			
Intersection Signal Delay: 23.8		Intersection LOS: C	
Intersection Capacity Utilization 81.6%		ICU Level of Service D	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	15	132	183	1998	151	123	1922
v/c Ratio	0.03	0.79	0.45	0.62	0.15	1.92	0.61
Control Delay	4.1	77.9	39.4	9.3	2.0	474.7	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.1	77.9	39.4	9.3	2.0	474.7	6.7
Queue Length 50th (m)	0.0	31.5	17.5	90.5	2.0	~46.9	47.0
Queue Length 95th (m)	1.2	52.9	28.3	122.1	8.8	#88.2	66.0
Internal Link Dist (m)	146.2		318.3	385.5			262.4
Turn Bay Length (m)		25.0			45.0	65.0	
Base Capacity (vph)	640	213	511	3205	984	64	3146
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.62	0.36	0.62	0.15	1.92	0.61

Intersection Summary
~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	14	123	0	170	0	1858	140	114	1787	0
Future Volume (veh/h)	0	0	14	123	0	170	0	1858	140	114	1787	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1397	1473	1900	1863	1810	1520	1638	1776	1863
Adj Flow Rate, veh/h	0	0	15	132	0	183	0	1998	151	123	1922	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Percent Heavy Veh, %	2	2	2	36	2	29	2	5	25	16	7	2
Cap, veh/h	60	296	265	227	234	210	60	3178	945	142	3119	1159
Arrive On Green	0.00	0.00	0.17	0.17	0.00	0.17	0.00	0.73	0.73	1.00	1.00	0.00
Sat Flow, veh/h	1196	1770	1583	1045	1399	1252	231	4343	1292	163	4262	1583
Grp Volume(v), veh/h	0	0	15	132	0	183	0	1998	151	123	1922	0
Grp Sat Flow(s),veh/h/ln	1196	1770	1583	1045	1399	1252	231	1448	1292	163	1421	1583
Q Serve(g_s), s	0.0	0.0	1.0	14.6	0.0	17.1	0.0	27.4	4.3	60.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.0	15.5	0.0	17.1	0.0	27.4	4.3	87.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	296	265	227	234	210	60	3178	945	142	3119	1159
V/C Ratio(X)	0.00	0.00	0.06	0.58	0.00	0.87	0.00	0.63	0.16	0.87	0.62	0.00
Avail Cap(c_a), veh/h	104	361	323	265	286	256	60	3178	945	142	3119	1159
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.81	0.81	0.00
Uniform Delay (d), s/veh	0.0	0.0	42.0	48.5	0.0	48.7	0.0	8.0	4.9	23.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	2.4	0.0	23.3	0.0	1.0	0.4	40.0	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.4	4.4	0.0	7.3	0.0	11.0	1.6	5.6	0.2	0.0
LnGrp Delay(d),s/veh	0.0	0.0	42.1	50.9	0.0	72.0	0.0	8.9	5.2	63.8	0.7	0.0
LnGrp LOS			D	D		E		A	A	E	A	
Approach Vol, veh/h		15			315			2149			2045	
Approach Delay, s/veh		42.1			63.2			8.7			4.5	
Approach LOS		D			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		94.4		25.6		94.4		25.6
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		29.4		3.0		89.8		19.1
Green Ext Time (p_c), s		34.0		0.0		0.0		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	10.7
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	529	1815	284	274	2385	144	352	1369	296	345	1050	500
Future Volume (vph)	529	1815	284	274	2385	144	352	1369	296	345	1050	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98				1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	4343	1538	1736	4343	1524
Flt Permitted	0.950			0.099			0.099			0.099		
Satd. Flow (perm)	3400	5085	1557	176	4715	1292	181	4343	1538	181	4343	1497
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			218			105			190			258
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	540	1852	290	280	2434	147	359	1397	302	352	1071	510
Shared Lane Traffic (%)												
Lane Group Flow (vph)	540	1852	290	280	2434	147	359	1397	302	352	1071	510
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

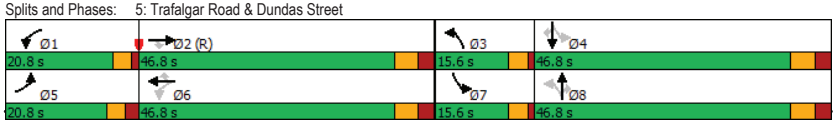
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5	16.5	11.0	16.5	16.5
Total Split (s)	20.8	46.8	46.8	20.8	46.8	46.8	15.6	46.8	46.8	15.6	46.8	46.8
Total Split (%)	16.0%	36.0%	36.0%	16.0%	36.0%	36.0%	12.0%	36.0%	36.0%	12.0%	36.0%	36.0%
Maximum Green (s)	15.8	40.4	40.4	16.8	40.4	40.4	11.6	40.3	40.3	11.6	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	15.8	40.4	40.4	59.6	40.4	40.4	54.4	40.3	40.3	54.4	40.3	40.3
Actuated g/C Ratio	0.12	0.31	0.31	0.46	0.31	0.31	0.42	0.31	0.31	0.42	0.31	0.31
v/c Ratio	1.31	1.17	0.46	1.02	1.66	0.31	1.68	1.04	0.50	1.64	0.80	0.79
Control Delay	199.1	124.7	11.9	78.0	327.3	13.1	350.2	78.6	16.1	336.3	46.4	30.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	199.1	124.7	11.9	78.0	327.3	13.1	350.2	78.6	16.1	336.3	46.4	30.0
LOS	F	F	B	E	F	B	F	E	B	F	D	C
Approach Delay		127.5			286.8			116.8			94.8	
Approach LOS		F			F			F			F	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 40.3 (31%), Referenced to phase 2:EBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.68
Intersection Signal Delay: 166.3 — Intersection LOS: F
Intersection Capacity Utilization 125.0% — ICU Level of Service H
Analysis Period (min) 15

* User Entered Value

Splits and Phases: 5: Trafalgar Road & Dundas Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	540	1852	290	280	2434	147	359	1397	302	352	1071	510
v/c Ratio	1.31	1.17	0.46	1.02	1.66	0.31	1.68	1.04	0.50	1.64	0.80	0.79
Control Delay	199.1	124.7	11.9	78.0	327.3	13.1	350.2	78.6	16.1	336.3	46.4	30.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	199.1	124.7	11.9	78.0	327.3	13.1	350.2	78.6	16.1	336.3	46.4	30.0
Queue Length 50th (m)	~96.2	~217.9	14.0	~65.5	~345.6	9.4	~125.1	~168.9	22.8	~121.1	110.2	65.9
Queue Length 95th (m)	#132.9	#248.9	39.6	m54.3	m#266.2	m7.3	#188.8	#204.4	51.5	#184.3	131.4	115.9
Internal Link Dist (m)		530.9			391.5			307.2			385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Base Capacity (vph)	413	1580	634	275	1465	473	214	1346	607	214	1346	642
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.31	1.17	0.46	1.02	1.66	0.31	1.68	1.04	0.50	1.64	0.80	0.79

Intersection Summary

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	529	1815	284	274	2385	144	352	1369	296	345	1050	500
Future Volume (veh/h)	529	1815	284	274	2385	144	352	1369	296	345	1050	500
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1810	1827	1810	1792
Adj Flow Rate, veh/h	540	1852	290	280	2434	147	359	1397	302	352	1071	510
Adj No. of Lanes	2	3	1	1	3	1	1	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	414	1580	490	274	1465	400	237	1346	475	211	1346	470
Arrive On Green	0.12	0.31	0.31	0.13	0.31	0.31	0.09	0.31	0.31	0.09	0.31	0.31
Sat Flow, veh/h	3408	5085	1577	1691	4715	1287	1740	4343	1531	1740	4343	1516
Grp Volume(v), veh/h	540	1852	290	280	2434	147	359	1397	302	352	1071	510
Grp Sat Flow(s),veh/h/ln	1704	1695	1577	1691	1572	1287	1740	1448	1531	1740	1448	1516
Q Serve(g_s), s	15.8	40.4	20.2	16.8	40.4	11.6	11.6	40.3	22.0	11.6	29.4	40.3
Cycle Q Clear(g_c), s	15.8	40.4	20.2	16.8	40.4	11.6	11.6	40.3	22.0	11.6	29.4	40.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	414	1580	490	274	1465	400	237	1346	475	211	1346	470
V/C Ratio(X)	1.30	1.17	0.59	1.02	1.66	0.37	1.51	1.04	0.64	1.67	0.80	1.09
Avail Cap(c_a), veh/h	414	1580	490	274	1465	400	237	1346	475	211	1346	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.1	44.8	37.8	40.2	44.8	34.9	34.2	44.8	38.6	37.1	41.1	44.8
Incr Delay (d2), s/veh	153.3	84.5	5.2	60.2	300.5	1.6	251.5	34.9	3.0	322.0	3.5	66.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.2	31.2	9.5	14.4	58.3	4.3	25.4	20.4	9.7	26.4	12.1	25.5
LnGrp Delay(d),s/veh	210.4	129.3	43.0	100.5	345.3	36.4	285.7	79.7	41.6	359.1	44.6	111.3
LnGrp LOS	F	F	D	F	F	D	F	F	D	F	D	F
Approach Vol, veh/h		2682			2861			2058			1933	
Approach Delay, s/veh		136.3			305.5			110.1			119.4	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.8	46.8	15.6	46.8	20.8	46.8	15.6	46.8
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	16.8	40.4	11.6	40.3	15.8	40.4	11.6	40.3
Max Q Clear Time (g_c+I1), s	18.8	42.4	13.6	42.3	17.8	42.4	13.6	42.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	178.0
HCM 2010 LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	83	2002	77	330	2660	151	143	102	173	113	70	57
Future Volume (vph)	83	2002	77	330	2660	151	143	102	173	113	70	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor			0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.932	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3209	0
Flt Permitted	0.079			0.074			0.666			0.687		
Satd. Flow (perm)	144	4940	1470	138	4673	1281	1209	1900	1577	1290	3209	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			104			100			184		61	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	88	2130	82	351	2830	161	152	109	184	120	74	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	2130	82	351	2830	161	152	109	184	120	135	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	11.0	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	11.7	57.2	57.2	26.0	71.5	71.5	46.8	46.8	46.8	46.8	46.8	
Total Split (%)	9.0%	44.0%	44.0%	20.0%	55.0%	55.0%	36.0%	36.0%	36.0%	36.0%	36.0%	
Maximum Green (s)	7.7	50.4	50.4	22.0	64.7	64.7	39.4	39.4	39.4	39.4	39.4	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)		24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	60.7	50.4	50.4	79.2	64.9	64.9	39.4	39.4	39.4	39.4	39.4	
Actuated g/C Ratio	0.47	0.39	0.39	0.61	0.50	0.50	0.30	0.30	0.30	0.30	0.30	
v/c Ratio	0.56	1.11	0.13	0.97	1.21	0.23	0.42	0.19	0.30	0.31	0.13	
Control Delay	32.3	86.3	6.6	79.7	130.9	8.2	40.4	34.6	6.0	37.5	18.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	32.3	86.3	6.6	79.7	130.9	8.2	40.4	34.6	6.0	37.5	18.4	
LOS	C	F	A	E	F	A	D	C	A	D	B	
Approach Delay		81.4			119.6			24.7			27.4	
Approach LOS		F			F			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 36.4 (28%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.21			
Intersection Signal Delay: 95.4		Intersection LOS: F	
Intersection Capacity Utilization 119.4%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 6: Postridge Drive & Dundas Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	88	2130	82	351	2830	161	152	109	184	120	135
v/c Ratio	0.56	1.11	0.13	0.97	1.21	0.23	0.42	0.19	0.30	0.31	0.13
Control Delay	32.3	86.3	6.6	79.7	130.9	8.2	40.4	34.6	6.0	37.5	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.3	86.3	6.6	79.7	130.9	8.2	40.4	34.6	6.0	37.5	18.4
Queue Length 50th (m)	14.9	~231.6	2.1	77.4	~342.1	8.5	32.7	21.7	0.0	24.9	7.4
Queue Length 95th (m)	m12.7	m100.4	m1.8	#141.3	#369.1	21.8	54.3	37.2	17.3	43.0	15.6
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	161	1915	633	360	2333	689	366	575	606	390	1015
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	1.11	0.13	0.97	1.21	0.23	0.42	0.19	0.30	0.31	0.13

Intersection Summary	
~	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.
m	Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	2002	77	330	2660	151	143	102	173	113	70	57
Future Volume (veh/h)	83	2002	77	330	2660	151	143	102	173	113	70	57
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1829	1900
Adj Flow Rate, veh/h	88	2130	82	351	2830	161	152	109	184	120	74	61
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	145	1915	577	356	2361	662	386	576	481	339	574	427
Arrive On Green	0.05	0.39	0.39	0.17	0.51	0.51	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1740	4940	1488	1774	4673	1310	1218	1900	1586	1087	1894	1409
Grp Volume(v), veh/h	88	2130	82	351	2830	161	152	109	184	120	67	68
Grp Sat Flow(s),veh/h/ln	1740	1647	1488	1774	1558	1310	1218	1900	1586	1087	1737	1567
Q Serve(g_s), s	3.9	50.4	4.6	21.6	65.7	9.0	13.5	5.5	11.9	11.9	3.6	4.1
Cycle Q Clear(g_c), s	3.9	50.4	4.6	21.6	65.7	9.0	17.6	5.5	11.9	17.4	3.6	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.90
Lane Grp Cap(c), veh/h	145	1915	577	356	2361	662	386	576	481	339	527	475
V/C Ratio(X)	0.61	1.11	0.14	0.99	1.20	0.24	0.39	0.19	0.38	0.35	0.13	0.14
Avail Cap(c_a), veh/h	158	1915	577	356	2361	662	386	576	481	339	527	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	39.8	25.8	43.3	32.2	18.1	39.4	33.5	35.7	39.9	32.8	33.0
Incr Delay (d2), s/veh	5.6	58.5	0.5	44.1	93.7	0.9	3.0	0.7	2.3	2.9	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	33.3	2.0	16.9	48.7	3.4	4.9	3.0	5.5	3.9	1.8	1.9
LnGrp Delay(d),s/veh	36.9	98.3	26.3	87.5	125.9	19.0	42.4	34.2	38.0	42.8	33.3	33.6
LnGrp LOS	D	F	C	F	F	B	D	C	D	D	C	C
Approach Vol, veh/h		2300			3342			445			255	
Approach Delay, s/veh		93.4			116.7			38.6			37.9	
Approach LOS		F			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	26.0	57.2		46.8	10.7	72.5		46.8
Change Period (Y+Rc), s	4.0	6.8		* 7.4	4.0	6.8		* 7.4
Max Green Setting (Gmax), s	22.0	50.4		* 39	7.7	64.7		* 39
Max Q Clear Time (g_c+I1), s	23.6	52.4		19.6	5.9	67.7		19.4
Green Ext Time (p_c), s	0.0	0.0		2.4	0.0	0.0		1.5

Intersection Summary		
HCM 2010 Ctrl Delay		99.6
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	91	112	266	35	56	125
Future Volume (vph)	91	112	266	35	56	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.984		0.907	
Flt Protected		0.978			0.985	
Satd. Flow (prot)	0	1631	1746	0	1562	0
Flt Permitted		0.978			0.985	
Satd. Flow (perm)	0	1631	1746	0	1562	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		120.2	260.2		319.6	
Travel Time (s)		8.7	18.7		23.0	
Confl. Peds. (#/hr)					4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	25%	5%	8%	0%	8%	9%
Adj. Flow (vph)	103	127	302	40	64	142
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	230	342	0	206	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	47.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	91	112	266	35	56	125
Future Vol, veh/h	91	112	266	35	56	125
Conflicting Peds, #/hr	0	0	0	0	4	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	88	88	88	88	88	88
Heavy Vehicles, %	25	5	8	0	8	9
Mvmt Flow	103	127	302	40	64	142

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	342	0	-	0	659	322
Stage 1	-	-	-	-	322	-
Stage 2	-	-	-	-	337	-
Critical Hdwy	4.35	-	-	-	6.48	6.29
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.425	-	-	-	3.572	3.381
Pot Cap-1 Maneuver	1099	-	-	-	419	703
Stage 1	-	-	-	-	721	-
Stage 2	-	-	-	-	710	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1099	-	-	-	377	703
Mov Cap-2 Maneuver	-	-	-	-	377	-
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	710	-

Approach	EB	WB	SB
HCM Control Delay, s	3.9	0	15.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1099	-	-	-	555
HCM Lane V/C Ratio	0.094	-	-	-	0.371
HCM Control Delay (s)	8.6	0	-	-	15.3
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	1.7

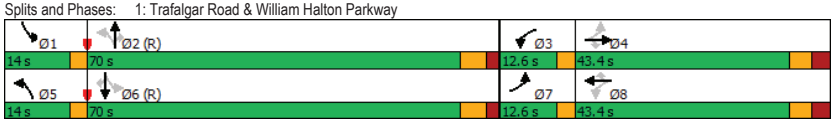
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	189	418	182	37	807	25	102	870	41	189	647	124
Future Volume (vph)	189	418	182	37	807	25	102	870	41	189	647	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4262	1553	1687	4515	1429
Flt Permitted	0.100			0.444			0.322			0.206		
Satd. Flow (perm)	178	3610	1583	844	3374	1553	612	4262	1553	366	4515	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			188			77			78			128
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	195	431	188	38	832	26	105	897	42	195	667	128
Shared Lane Traffic (%)												
Lane Group Flow (vph)	195	431	188	38	832	26	105	897	42	195	667	128
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	12.6	43.4	43.4	12.6	43.4	43.4	14.0	70.0	70.0	14.0	70.0	70.0
Total Split (%)	9.0%	31.0%	31.0%	9.0%	31.0%	31.0%	10.0%	50.0%	50.0%	10.0%	50.0%	50.0%
Maximum Green (s)	9.6	36.4	36.4	9.6	36.4	36.4	11.0	63.1	63.1	11.0	63.1	63.1
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	51.9	40.2	40.2	48.2	36.4	36.4	76.4	63.4	63.4	79.6	65.0	65.0
Actuated g/C Ratio	0.37	0.29	0.29	0.34	0.26	0.26	0.55	0.45	0.45	0.57	0.46	0.46
v/c Ratio	1.15	0.42	0.32	0.11	0.95	0.06	0.26	0.46	0.06	0.63	0.32	0.17
Control Delay	148.7	42.7	6.8	28.6	71.0	0.2	14.9	27.6	0.8	24.1	24.3	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	148.7	42.7	6.8	28.6	71.0	0.2	14.9	27.6	0.8	24.1	24.3	4.1
LOS	F	D	A	C	E	A	B	C	A	C	C	A
Approach Delay		59.8			67.2			25.2			21.6	
Approach LOS		E			E			C			C	

Intersection Summary		
Area Type:	Other	
Cycle Length: 140		
Actuated Cycle Length: 140		
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green		
Natural Cycle: 75		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 1.15		
Intersection Signal Delay: 41.8	Intersection LOS: D	
Intersection Capacity Utilization 78.3%	ICU Level of Service D	
Analysis Period (min) 15		

* User Entered Value

Splits and Phases: 1: Trafalgar Road & William Halton Parkway



Queues
1: Trafalgar Road & William Halton Parkway

Future Total Phase 1
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	195	431	188	38	832	26	105	897	42	195	667	128
v/c Ratio	1.15	0.42	0.32	0.11	0.95	0.06	0.26	0.46	0.06	0.63	0.32	0.17
Control Delay	148.7	42.7	6.8	28.6	71.0	0.2	14.9	27.6	0.8	24.1	24.3	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	148.7	42.7	6.8	28.6	71.0	0.2	14.9	27.6	0.8	24.1	24.3	4.1
Queue Length 50th (m)	~49.8	54.5	0.0	7.0	126.0	0.0	13.1	74.5	0.0	26.0	50.0	0.0
Queue Length 95th (m)	#103.7	72.9	19.2	15.1	#167.8	0.0	22.2	89.3	1.3	39.5	63.2	12.0
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	169	1037	588	367	877	460	436	1930	746	312	2097	732
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.15	0.42	0.32	0.10	0.95	0.06	0.24	0.46	0.06	0.63	0.32	0.17

Intersection Summary

~ 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.

HCM 2010 Signalized Intersection Summary
1: Trafalgar Road & William Halton Parkway

Future Total Phase 1
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	418	182	37	807	25	102	870	41	189	647	124
Future Volume (veh/h)	189	418	182	37	807	25	102	870	41	189	647	124
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	195	431	188	38	832	26	105	897	42	195	667	128
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	178	1044	458	279	875	403	412	1943	708	353	2171	687
Arrive On Green	0.07	0.29	0.29	0.04	0.26	0.26	0.05	0.46	0.46	0.07	0.48	0.48
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4262	1553	1691	4515	1429
Grp Volume(v), veh/h	195	431	188	38	832	26	105	897	42	195	667	128
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1421	1553	1691	1505	1429
Q Serve(g_s), s	9.6	13.5	13.4	2.1	33.9	1.8	4.3	20.3	2.1	8.3	12.6	7.1
Cycle Q Clear(g_c), s	9.6	13.5	13.4	2.1	33.9	1.8	4.3	20.3	2.1	8.3	12.6	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	178	1044	458	279	875	403	412	1943	708	353	2171	687
V/C Ratio(X)	1.10	0.41	0.41	0.14	0.95	0.06	0.26	0.46	0.06	0.55	0.31	0.19
Avail Cap(c_a), veh/h	178	1044	458	333	877	404	465	1943	708	360	2171	687
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	40.2	40.1	35.6	51.0	39.1	18.5	26.2	21.3	19.1	22.1	20.7
Incr Delay (d2), s/veh	96.0	0.6	1.3	0.2	19.9	0.1	0.3	0.8	0.2	1.8	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	6.8	6.0	1.1	18.2	0.8	2.2	8.1	0.9	4.0	5.3	2.9
LnGrp Delay(d),s/veh	137.8	40.7	41.4	35.8	70.9	39.2	18.9	27.0	21.5	20.9	22.5	21.3
LnGrp LOS	F	D	D	D	E	D	B	C	C	C	C	C
Approach Vol, veh/h		814			896			1044			990	
Approach Delay, s/veh		64.1			68.5			26.0			22.0	
Approach LOS		E			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	70.7	8.4	47.5	9.9	74.2	12.6	43.3
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	11.0	* 63	9.6	36.4	11.0	* 63	9.6	36.4
Max Q Clear Time (g_c+I1), s	10.3	22.3	4.1	15.5	6.3	14.6	11.6	35.9
Green Ext Time (p_c), s	0.1	17.0	0.0	7.2	0.1	13.9	0.0	0.4

Intersection Summary

HCM 2010 Ctrl Delay	43.4
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

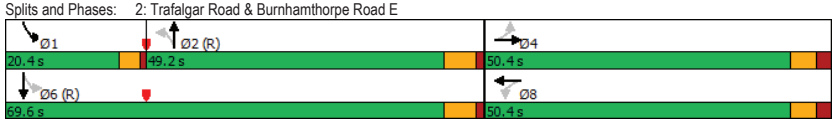
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	197	59	41	124	31	62	741	66	48	700	78
Future Volume (vph)	125	197	59	41	124	31	62	741	66	48	700	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.80	*0.80	1.00	*0.80	*0.80
Frt		0.965			0.970			0.988			0.985	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1781	0	1805	1786	0	1770	4197	0	1805	4178	0
Flt Permitted	0.540			0.296			0.282			0.238		
Satd. Flow (perm)	996	1781	0	562	1786	0	525	4197	0	452	4178	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			12			12			20	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	137	216	65	45	136	34	68	814	73	53	769	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	137	281	0	45	170	0	68	887	0	53	855	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		7.0	20.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		26.0	26.0		11.0	26.0	
Total Split (s)	50.4	50.4		50.4	50.4		49.2	49.2		20.4	69.6	
Total Split (%)	42.0%	42.0%		42.0%	42.0%		41.0%	41.0%		17.0%	58.0%	
Maximum Green (s)	44.4	44.4		44.4	44.4		43.2	43.2		16.4	63.6	
Yellow Time (s)	3.7	3.7		3.7	3.7		4.6	4.6		3.0	4.6	
All-Red Time (s)	2.3	2.3		2.3	2.3		1.4	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	23.8	23.8		23.8	23.8		75.2	75.2		86.2	84.2	
Actuated g/C Ratio	0.20	0.20		0.20	0.20		0.63	0.63		0.72	0.70	
v/c Ratio	0.70	0.77		0.41	0.47		0.21	0.34		0.13	0.29	
Control Delay	62.2	57.0		51.0	42.4		11.0	9.1		6.9	7.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	62.2	57.0		51.0	42.4		11.0	9.1		6.9	7.4	
LOS	E	E		D	D		B	A		A	A	
Approach Delay		58.7			44.2			9.2			7.4	
Approach LOS		E			D			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 19.8		Intersection LOS: B	
Intersection Capacity Utilization 75.6%		ICU Level of Service D	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	137	281	45	170	68	887	53	855
v/c Ratio	0.70	0.77	0.41	0.47	0.21	0.34	0.13	0.29
Control Delay	62.2	57.0	51.0	42.4	11.0	9.1	6.9	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.2	57.0	51.0	42.4	11.0	9.1	6.9	7.4
Queue Length 50th (m)	31.8	63.4	9.8	34.9	7.4	42.9	3.4	28.8
Queue Length 95th (m)	50.9	87.2	20.9	52.2	19.3	65.0	9.1	45.5
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	368	667	207	668	329	2634	509	2937
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.42	0.22	0.25	0.21	0.34	0.10	0.29

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	197	59	41	124	31	62	741	66	48	700	78
Future Volume (veh/h)	125	197	59	41	124	31	62	741	66	48	700	78
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1846	1900	1900	1841	1900	1863	1770	1900	1900	1767	1900
Adj Flow Rate, veh/h	137	216	65	45	136	34	68	814	73	53	769	86
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	237	313	94	154	326	82	439	2452	219	522	2725	303
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	1.00	1.00	1.00	0.05	0.67	0.67
Sat Flow, veh/h	1198	1363	410	1116	1423	356	643	4164	372	1810	4064	452
Grp Volume(v), veh/h	137	0	281	45	0	170	68	553	334	53	534	321
Grp Sat Flow(s),veh/h/ln	1198	0	1774	1116	0	1778	643	1416	1704	1810	1414	1688
Q Serve(g_s), s	13.2	0.0	17.4	4.6	0.0	9.8	0.0	0.0	0.0	1.3	9.2	9.3
Cycle Q Clear(g_c), s	23.0	0.0	17.4	22.0	0.0	9.8	0.0	0.0	0.0	1.3	9.2	9.3
Prop In Lane	1.00		0.23	1.00		0.20	1.00		0.22	1.00		0.27
Lane Grp Cap(c), veh/h	237	0	407	154	0	408	439	1668	1004	522	1896	1132
V/C Ratio(X)	0.58	0.00	0.69	0.29	0.00	0.42	0.16	0.33	0.33	0.10	0.28	0.28
Avail Cap(c_a), veh/h	406	0	656	311	0	658	439	1668	1004	682	1896	1132
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	0.0	42.3	52.4	0.0	39.4	0.0	0.0	0.0	7.4	8.0	8.0
Incr Delay (d2), s/veh	2.2	0.0	2.1	1.0	0.0	0.7	0.8	0.5	0.9	0.1	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	8.7	1.5	0.0	4.9	0.1	0.1	0.2	0.6	3.7	4.5
LnGrp Delay(d),s/veh	51.4	0.0	44.4	53.5	0.0	40.1	0.8	0.5	0.9	7.5	8.4	8.7
LnGrp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		418			215			955			908	
Approach Delay, s/veh		46.7			42.9			0.7			8.4	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	9.8	76.7		33.5		86.5		33.5
Change Period (Y+Rc), s	4.0	* 6		6.0		* 6		6.0
Max Green Setting (Gmax), s	16.4	* 43		44.4		* 64		44.4
Max Q Clear Time (g_c+I1), s	3.3	2.0		25.0		11.3		24.0
Green Ext Time (p_c), s	0.1	17.5		2.6		16.3		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	14.8
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

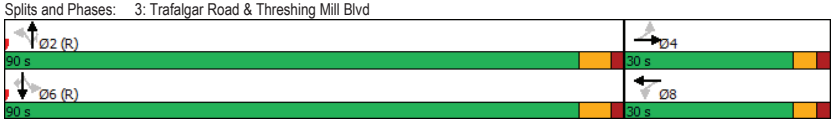
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	126	0	172	0	672	58	128	717	0
Future Volume (vph)	0	0	0	126	0	172	0	672	58	128	717	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt					0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3539	0	1410	2950	0	1863	4262	1404	1671	4262	1863
Flt Permitted				0.757						0.339		
Satd. Flow (perm)	1863	3539	0	1124	2950	0	1863	4262	1404	596	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					295				60			
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		175.7			120.2			286.4			537.5	
Travel Time (s)		12.7			8.7			12.9			24.2	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Heavy Vehicles (%)	2%	2%	2%	28%	2%	4%	2%	7%	15%	8%	7%	2%
Adj. Flow (vph)	0	0	0	131	0	179	0	700	60	133	747	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	131	179	0	0	700	60	133	747	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		41.6	41.6	41.6	41.6	41.6	41.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0					0	0	0	0	0	0
Act Effct Green (s)				18.6	18.6			89.3	89.3	89.3	89.3	
Actuated g/C Ratio				0.16	0.16			0.74	0.74	0.74	0.74	
v/c Ratio				0.76	0.25			0.22	0.06	0.30	0.24	
Control Delay				73.6	0.9			2.1	0.7	5.8	3.6	
Queue Delay				0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay				73.6	0.9			2.1	0.7	5.8	3.6	
LOS				E	A			A	A	A	A	
Approach Delay					31.6			2.0			3.9	
Approach LOS					C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 13.2 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 7.6		Intersection LOS: A	
Intersection Capacity Utilization 57.3%		ICU Level of Service B	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 3: Trafalgar Road & Threshing Mill Blvd



Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	131	179	700	60	133	747
v/c Ratio	0.76	0.25	0.22	0.06	0.30	0.24
Control Delay	73.6	0.9	2.1	0.7	5.8	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.6	0.9	2.1	0.7	5.8	3.6
Queue Length 50th (m)	31.2	0.0	19.4	0.0	6.6	14.9
Queue Length 95th (m)	51.6	0.0	3.2	0.0	11.1	18.1
Internal Link Dist (m)		96.2	262.4			513.5
Turn Bay Length (m)	25.0			45.0	65.0	
Base Capacity (vph)	229	837	3173	1060	443	3173
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.21	0.22	0.06	0.30	0.24

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	126	0	172	0	672	58	128	717	0
Future Volume (veh/h)	0	0	0	126	0	172	0	672	58	128	717	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1484	1827	1900	1863	1776	1652	1759	1776	1863
Adj Flow Rate, veh/h	0	0	0	131	0	179	0	700	60	133	747	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	2	2	2	28	2	4	2	7	15	8	7	2
Cap, veh/h	60	493	0	257	242	216	60	3239	1067	564	3239	1203
Arrive On Green	0.00	0.00	0.00	0.14	0.00	0.14	0.00	1.00	1.00	1.00	1.00	0.00
Sat Flow, veh/h	1200	3632	0	1414	1736	1553	711	4262	1404	664	4262	1583
Grp Volume(v), veh/h	0	0	0	131	0	179	0	700	60	133	747	0
Grp Sat Flow(s),veh/h/ln	1200	1770	0	1414	1736	1553	711	1421	1404	664	1421	1583
Q Serve(g_s), s	0.0	0.0	0.0	10.5	0.0	13.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	10.5	0.0	13.5	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	493	0	257	242	216	60	3239	1067	564	3239	1203
V/C Ratio(X)	0.00	0.00	0.00	0.51	0.00	0.83	0.00	0.22	0.06	0.24	0.23	0.00
Avail Cap(c_a), veh/h	138	723	0	349	354	317	60	3239	1067	564	3239	1203
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.99	0.99	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	49.0	0.0	50.3	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.6	0.0	11.1	0.0	0.2	0.1	1.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	4.2	0.0	6.4	0.0	0.0	0.0	0.2	0.0	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	50.6	0.0	61.4	0.0	0.2	0.1	1.0	0.2	0.0
LnGrp LOS				D		E		A	A	A	A	
Approach Vol, veh/h		0			310			760			880	
Approach Delay, s/veh		0.0			56.8			0.1			0.3	
Approach LOS					E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		97.8		22.2		97.8		22.2
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		2.0		0.0		2.0		15.5
Green Ext Time (p_c), s		14.9		0.0		20.0		1.2

Intersection Summary			
HCM 2010 Ctrl Delay		9.2	
HCM 2010 LOS		A	

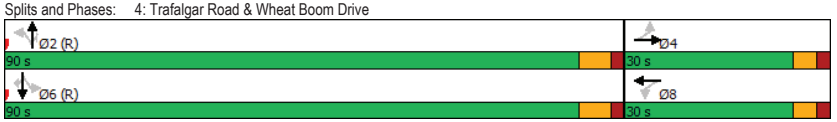
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	70	0	95	0	631	41	33	841	0
Future Volume (vph)	0	0	0	70	0	95	0	631	41	33	841	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt					0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3539	0	1327	2379	0	1863	4343	1292	1556	4262	1863
Flt Permitted				0.757						0.348		
Satd. Flow (perm)	1863	3539	0	1058	2379	0	1863	4343	1292	570	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					307				44			
Link Speed (k/h)		50			50			60			80	
Link Distance (m)		170.2			342.3			409.5			286.4	
Travel Time (s)		12.3			24.6			24.6			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Heavy Vehicles (%)	2%	2%	2%	36%	2%	29%	2%	5%	25%	16%	7%	2%
Adj. Flow (vph)	0	0	0	75	0	102	0	678	44	35	904	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	75	102	0	0	678	44	35	904	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0			
Pedestrian Calls (#/hr)	0	0					0	0	0			
Act Effct Green (s)				14.4	14.4			93.5	93.5	93.5	93.5	
Actuated g/C Ratio				0.12	0.12			0.78	0.78	0.78	0.78	
v/c Ratio				0.60	0.18			0.20	0.04	0.08	0.27	
Control Delay				68.0	0.7			3.9	1.3	3.3	3.0	
Queue Delay				0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay				68.0	0.7			3.9	1.3	3.3	3.0	
LOS				E	A			A	A	A	A	
Approach Delay					29.2			3.8			3.0	
Approach LOS					C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 5.8		Intersection LOS: A	
Intersection Capacity Utilization 45.8%		ICU Level of Service A	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	75	102	678	44	35	904
v/c Ratio	0.60	0.18	0.20	0.04	0.08	0.27
Control Delay	68.0	0.7	3.9	1.3	3.3	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.0	0.7	3.9	1.3	3.3	3.0
Queue Length 50th (m)	18.0	0.0	14.7	0.0	1.3	15.3
Queue Length 95th (m)	33.0	0.0	25.0	3.1	m3.5	20.0
Internal Link Dist (m)		318.3	385.5			262.4
Turn Bay Length (m)	25.0			45.0	65.0	
Base Capacity (vph)	216	730	3383	1016	444	3320
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.14	0.20	0.04	0.08	0.27

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	70	0	95	0	631	41	33	841	0
Future Volume (veh/h)	0	0	0	70	0	95	0	631	41	33	841	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1397	1473	1900	1863	1810	1520	1638	1776	1863
Adj Flow Rate, veh/h	0	0	0	75	0	102	0	678	44	35	904	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Percent Heavy Veh, %	2	2	2	36	2	29	2	5	25	16	7	2
Cap, veh/h	60	363	0	197	144	128	60	3459	1029	546	3395	1261
Arrive On Green	0.00	0.00	0.00	0.10	0.00	0.10	0.00	0.80	0.80	1.00	1.00	0.00
Sat Flow, veh/h	1287	3632	0	1331	1399	1252	614	4343	1292	640	4262	1583
Grp Volume(v), veh/h	0	0	0	75	0	102	0	678	44	35	904	0
Grp Sat Flow(s),veh/h/ln	1287	1770	0	1331	1399	1252	614	1448	1292	640	1421	1583
Q Serve(g_s), s	0.0	0.0	0.0	6.4	0.0	9.6	0.0	4.5	0.9	0.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	6.4	0.0	9.6	0.0	4.5	0.9	4.8	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	363	0	197	144	128	60	3459	1029	546	3395	1261
V/C Ratio(X)	0.00	0.00	0.00	0.38	0.00	0.79	0.00	0.20	0.04	0.06	0.27	0.00
Avail Cap(c_a), veh/h	191	723	0	332	286	256	60	3459	1029	546	3395	1261
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.96	0.96	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	51.2	0.0	52.6	0.0	2.9	2.6	0.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.2	0.0	10.5	0.0	0.1	0.1	0.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	2.4	0.0	3.7	0.0	1.8	0.3	0.1	0.1	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	52.4	0.0	63.1	0.0	3.1	2.6	0.3	0.2	0.0
LnGrp LOS				D		E		A	A	A	A	
Approach Vol, veh/h		0			177			722			939	
Approach Delay, s/veh		0.0			58.6			3.0			0.2	
Approach LOS					E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		102.2		17.8		102.2		17.8
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		6.5		0.0		6.8		11.6
Green Ext Time (p_c), s		7.0		0.0		10.5		0.8

Intersection Summary

HCM 2010 Ctrl Delay	6.9	
HCM 2010 LOS	A	

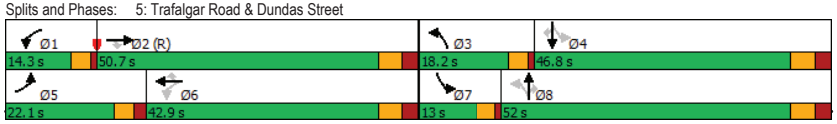
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	214	1618	205	178	968	8	164	493	118	101	613	144
Future Volume (vph)	214	1618	205	178	968	8	164	493	118	101	613	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98	1.00			1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	4343	1538	1736	4343	1524
Flt Permitted	0.950			0.073			0.181			0.391		
Satd. Flow (perm)	3400	5085	1557	130	4715	1292	330	4343	1538	714	4343	1497
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			196			172			138			171
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	218	1651	209	182	988	8	167	503	120	103	626	147
Shared Lane Traffic (%)												
Lane Group Flow (vph)	218	1651	209	182	988	8	167	503	120	103	626	147
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5	16.5	11.0	16.5	16.5
Total Split (s)	22.1	50.7	50.7	14.3	42.9	42.9	18.2	52.0	52.0	13.0	46.8	46.8
Total Split (%)	17.0%	39.0%	39.0%	11.0%	33.0%	33.0%	14.0%	40.0%	40.0%	10.0%	36.0%	36.0%
Maximum Green (s)	17.1	44.3	44.3	10.3	36.5	36.5	14.2	45.5	45.5	9.0	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	14.1	53.1	53.1	74.2	54.9	54.9	45.4	30.3	30.3	37.0	25.8	25.8
Actuated g/C Ratio	0.11	0.41	0.41	0.57	0.42	0.42	0.35	0.23	0.23	0.28	0.20	0.20
v/c Ratio	0.59	0.79	0.28	0.66	0.50	0.01	0.64	0.50	0.26	0.38	0.73	0.34
Control Delay	61.6	38.4	5.9	65.5	20.2	0.0	41.1	44.3	5.3	32.2	53.7	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.6	38.4	5.9	65.5	20.2	0.0	41.1	44.3	5.3	32.2	53.7	5.7
LOS	E	D	A	E	C	A	D	D	A	C	D	A
Approach Delay		37.6			27.1			37.7			43.1	
Approach LOS		D			C			D			D	

Intersection Summary		
Area Type:	Other	
Cycle Length: 130		
Actuated Cycle Length: 130		
Offset: 18.2 (14%), Referenced to phase 2:EBT, Start of Green		
Natural Cycle: 75		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.79		
Intersection Signal Delay: 36.1	Intersection LOS: D	
Intersection Capacity Utilization 82.0%	ICU Level of Service E	
Analysis Period (min) 15		

* User Entered Value

Splits and Phases: 5: Trafalgar Road & Dundas Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	218	1651	209	182	988	8	167	503	120	103	626	147
v/c Ratio	0.59	0.79	0.28	0.66	0.50	0.01	0.64	0.50	0.26	0.38	0.73	0.34
Control Delay	61.6	38.4	5.9	65.5	20.2	0.0	41.1	44.3	5.3	32.2	53.7	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.6	38.4	5.9	65.5	20.2	0.0	41.1	44.3	5.3	32.2	53.7	5.7
Queue Length 50th (m)	29.3	143.9	2.1	37.9	33.8	0.0	32.0	49.1	0.0	18.9	66.6	0.0
Queue Length 95th (m)	41.6	#192.1	19.9	64.3	98.0	m0.0	46.5	58.9	11.2	30.3	78.3	11.9
Internal Link Dist (m)		530.9			391.5			307.2			385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Base Capacity (vph)	451	2077	752	276	1991	644	269	1520	628	275	1346	582
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.79	0.28	0.66	0.50	0.01	0.62	0.33	0.19	0.37	0.47	0.25

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	214	1618	205	178	968	8	164	493	118	101	613	144
Future Volume (veh/h)	214	1618	205	178	968	8	164	493	118	101	613	144
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1810	1827	1810	1792
Adj Flow Rate, veh/h	218	1651	209	182	988	8	167	503	120	103	626	147
Adj No. of Lanes	2	3	1	1	3	1	1	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	283	2371	736	229	2118	579	263	1040	366	269	912	318
Arrive On Green	0.08	0.47	0.47	0.07	0.45	0.45	0.09	0.24	0.24	0.06	0.21	0.21
Sat Flow, veh/h	3408	5085	1579	1691	4715	1289	1740	4343	1528	1740	4343	1513
Grp Volume(v), veh/h	218	1651	209	182	988	8	167	503	120	103	626	147
Grp Sat Flow(s),veh/h/ln	1704	1695	1579	1691	1572	1289	1740	1448	1528	1740	1448	1513
Q Serve(g_s), s	8.1	33.4	10.6	7.5	19.0	0.4	9.5	13.0	8.4	6.0	17.3	11.1
Cycle Q Clear(g_c), s	8.1	33.4	10.6	7.5	19.0	0.4	9.5	13.0	8.4	6.0	17.3	11.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	283	2371	736	229	2118	579	263	1040	366	269	912	318
V/C Ratio(X)	0.77	0.70	0.28	0.80	0.47	0.01	0.63	0.48	0.33	0.38	0.69	0.46
Avail Cap(c_a), veh/h	448	2371	736	239	2118	579	298	1520	535	285	1346	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.4	27.4	21.3	26.0	25.0	19.8	35.7	42.5	40.8	37.2	47.4	44.9
Incr Delay (d2), s/veh	5.3	1.7	1.0	16.9	0.4	0.0	4.1	0.4	0.6	1.1	1.1	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	16.0	4.8	4.5	8.3	0.2	4.8	5.2	3.6	2.9	7.0	4.7
LnGrp Delay(d),s/veh	63.7	29.1	22.3	42.9	25.4	19.9	39.8	42.9	41.4	38.3	48.5	46.2
LnGrp LOS	E	C	C	D	C	B	D	D	D	D	D	D
Approach Vol, veh/h		2078			1178			790			876	
Approach Delay, s/veh		32.1			28.1			42.1			46.9	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.5	67.0	15.6	33.8	15.8	64.8	11.8	37.6
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	10.3	44.3	14.2	40.3	17.1	36.5	9.0	45.5
Max Q Clear Time (g_c+I1), s	9.5	35.4	11.5	19.3	10.1	21.0	8.0	15.0
Green Ext Time (p_c), s	0.1	8.5	0.2	6.7	0.6	10.7	0.0	5.9

Intersection Summary	
HCM 2010 Ctrl Delay	35.4
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	1827	31	129	1040	67	56	34	147	117	75	96
Future Volume (vph)	35	1827	31	129	1040	67	56	34	147	117	75	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00		0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.916	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3141	0
Flt Permitted	0.246			0.059			0.637			0.734		
Satd. Flow (perm)	449	4940	1470	110	4673	1281	1157	1900	1577	1378	3141	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			70			71			139		89	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	37	1944	33	137	1106	71	60	36	156	124	80	102
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	1944	33	137	1106	71	60	36	156	124	182	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	2	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	26.8	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	70.2	70.2	70.2	13.0	83.2	83.2	46.8	46.8	46.8	46.8	46.8	
Total Split (%)	54.0%	54.0%	54.0%	10.0%	64.0%	64.0%	36.0%	36.0%	36.0%	36.0%	36.0%	
Maximum Green (s)	63.4	63.4	63.4	9.0	76.4	76.4	39.4	39.4	39.4	39.4	39.4	
Yellow Time (s)	4.2	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.6	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.8	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	24.0	24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	63.6	63.6	63.6	79.2	76.4	76.4	39.4	39.4	39.4	39.4	39.4	
Actuated g/C Ratio	0.49	0.49	0.49	0.61	0.59	0.59	0.30	0.30	0.30	0.30	0.30	
v/c Ratio	0.17	0.80	0.04	0.77	0.40	0.09	0.17	0.06	0.27	0.30	0.18	
Control Delay	15.8	18.6	1.4	51.6	15.0	2.8	35.0	32.7	8.4	37.1	17.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	15.8	18.6	1.4	51.6	15.0	2.8	35.0	32.7	8.4	37.1	17.3	
LOS	B	B	A	D	B	A	D	C	A	D	B	
Approach Delay		18.3			18.2			18.2			25.3	
Approach LOS		B			B			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 9.1 (7%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 18.8		Intersection LOS: B	
Intersection Capacity Utilization 106.5%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 6: Postridge Drive & Dundas Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	37	1944	33	137	1106	71	60	36	156	124	182
v/c Ratio	0.17	0.80	0.04	0.77	0.40	0.09	0.17	0.06	0.27	0.30	0.18
Control Delay	15.8	18.6	1.4	51.6	15.0	2.8	35.0	32.7	8.4	37.1	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	18.6	1.4	51.6	15.0	2.8	35.0	32.7	8.4	37.1	17.3
Queue Length 50th (m)	2.0	40.2	0.0	19.4	56.2	0.0	11.9	6.9	3.2	25.6	9.4
Queue Length 95th (m)	m5.2	86.3	m0.6	#52.1	66.4	6.6	23.8	15.5	19.9	43.5	18.8
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	219	2418	755	181	2746	782	350	575	574	417	1013
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.80	0.04	0.76	0.40	0.09	0.17	0.06	0.27	0.30	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	1827	31	129	1040	67	56	34	147	117	75	96
Future Volume (veh/h)	35	1827	31	129	1040	67	56	34	147	117	75	96
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1825	1900
Adj Flow Rate, veh/h	37	1944	33	137	1106	71	60	36	156	124	80	102
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	269	2487	750	190	2746	770	351	576	481	400	525	466
Arrive On Green	0.50	0.50	0.50	0.05	0.59	0.59	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	465	4940	1489	1774	4673	1310	1167	1900	1586	1191	1734	1539
Grp Volume(v), veh/h	37	1944	33	137	1106	71	60	36	156	124	80	102
Grp Sat Flow(s),veh/h/ln	465	1647	1489	1774	1558	1310	1167	1900	1586	1191	1734	1539
Q Serve(g_s), s	6.1	41.9	1.5	4.7	16.6	3.1	5.3	1.7	9.9	10.7	4.4	6.4
Cycle Q Clear(g_c), s	11.7	41.9	1.5	4.7	16.6	3.1	11.7	1.7	9.9	12.5	4.4	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	269	2487	750	190	2746	770	351	576	481	400	525	466
V/C Ratio(X)	0.14	0.78	0.04	0.72	0.40	0.09	0.17	0.06	0.32	0.31	0.15	0.22
Avail Cap(c_a), veh/h	269	2487	750	218	2746	770	351	576	481	400	525	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	26.4	16.4	27.0	14.5	11.7	38.2	32.2	35.0	36.6	33.1	33.8
Incr Delay (d2), s/veh	1.1	2.5	0.1	9.5	0.4	0.2	1.1	0.2	1.8	2.0	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	19.5	0.6	3.1	7.2	1.2	1.8	1.0	4.6	3.8	2.2	2.9
LnGrp Delay(d),s/veh	21.7	29.0	16.5	36.5	14.9	11.9	39.2	32.4	36.8	38.6	33.7	34.9
LnGrp LOS	C	C	B	D	B	B	D	C	D	D	C	C
Approach Vol, veh/h		2014			1314			252			306	
Approach Delay, s/veh		28.6			17.0			36.7			36.1	
Approach LOS		C			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	11.0	72.2		46.8		83.2		46.8
Change Period (Y+Rc), s	4.0	6.8		* 7.4		6.8		* 7.4
Max Green Setting (Gmax), s	9.0	63.4		* 39		76.4		* 39
Max Q Clear Time (g_c+I1), s	6.7	43.9		13.7		18.6		14.5
Green Ext Time (p_c), s	0.1	15.6		1.3		13.8		2.0

Intersection Summary

HCM 2010 Ctrl Delay	25.8
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	97	86	86	29	60	206
Future Volume (vph)	97	86	86	29	60	206
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.966			0.850
Flt Protected		0.974			0.950	
Satd. Flow (prot)	0	1601	1732	0	1671	1482
Flt Permitted		0.974			0.950	
Satd. Flow (perm)	0	1601	1732	0	1671	1482
Link Speed (k/h)		50	50		50	
Link Distance (m)		120.2	260.2		319.6	
Travel Time (s)		8.7	18.7		23.0	
Confl. Peds. (#/hr)					4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	25%	5%	8%	0%	8%	9%
Adj. Flow (vph)	110	98	98	33	68	234
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	208	131	0	68	234
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	97	86	86	29	60	206
Future Vol, veh/h	97	86	86	29	60	206
Conflicting Peds, #/hr	0	0	0	0	4	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	25	5	8	0	8	9
Mvmt Flow	110	98	98	33	68	234

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	131	0	-	0	437	115
Stage 1	-	-	-	-	115	-
Stage 2	-	-	-	-	322	-
Critical Hdwy	4.35	-	-	-	6.48	6.29
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.425	-	-	-	3.572	3.381
Pot Cap-1 Maneuver	1324	-	-	-	566	919
Stage 1	-	-	-	-	895	-
Stage 2	-	-	-	-	721	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1324	-	-	-	516	919
Mov Cap-2 Maneuver	-	-	-	-	516	-
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	721	-

Approach	EB	WB	SB
HCM Control Delay, s	4.2	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1324	-	-	-	516	919
HCM Lane V/C Ratio	0.083	-	-	-	0.132	0.255
HCM Control Delay (s)	8	0	-	-	13	10.3
HCM Lane LOS	A	A	-	-	B	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.5	1

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	142	50	0	0	0
Future Volume (vph)	0	142	50	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.865					
Flt Protected				0.950		
Satd. Flow (prot)	1611	0	0	3362	3539	0
Flt Permitted				0.950		
Satd. Flow (perm)	1611	0	0	3362	3539	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	51.6			89.3	74.2	
Travel Time (s)	3.7			6.4	5.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	154	54	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	154	0	0	54	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	18.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	142	50	0	0	0
Future Vol, veh/h	0	142	50	0	0	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	154	54	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	109	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	108	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	877	1083	1620	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	904	-	-	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	848	1083	1620	-	-	-
Mov Cap-2 Maneuver	848	-	-	-	-	-
Stage 1	988	-	-	-	-	-
Stage 2	904	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	7.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1620	-	1083	-	-
HCM Lane V/C Ratio	0.034	-	0.143	-	-
HCM Control Delay (s)	7.3	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

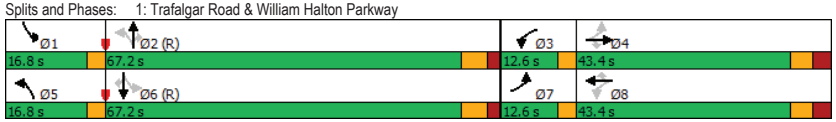
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	126	152	95	80	1289	16	98	1277	25	129	873	481
Future Volume (vph)	126	152	95	80	1289	16	98	1277	25	129	873	481
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4262	1553	1687	4515	1429
Flt Permitted	0.108			0.652			0.221			0.092		
Satd. Flow (perm)	192	3610	1583	1239	3374	1553	420	4262	1553	163	4515	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			98			77			78			309
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	130	157	98	82	1329	16	101	1316	26	133	900	496
Shared Lane Traffic (%)												
Lane Group Flow (vph)	130	157	98	82	1329	16	101	1316	26	133	900	496
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	12.6	43.4	43.4	12.6	43.4	43.4	16.8	67.2	67.2	16.8	67.2	67.2
Total Split (%)	9.0%	31.0%	31.0%	9.0%	31.0%	31.0%	12.0%	48.0%	48.0%	12.0%	48.0%	48.0%
Maximum Green (s)	9.6	36.4	36.4	9.6	36.4	36.4	13.8	60.3	60.3	13.8	60.3	60.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	50.8	37.2	37.2	49.2	36.4	36.4	76.3	63.3	63.3	79.7	65.0	65.0
Actuated g/C Ratio	0.36	0.27	0.27	0.35	0.26	0.26	0.54	0.45	0.45	0.57	0.46	0.46
v/c Ratio	0.76	0.16	0.20	0.17	1.52	0.03	0.32	0.68	0.03	0.63	0.43	0.60
Control Delay	57.5	40.3	8.2	29.5	273.8	0.1	16.1	33.0	0.1	31.0	26.1	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.5	40.3	8.2	29.5	273.8	0.1	16.1	33.0	0.1	31.0	26.1	13.1
LOS	E	D	A	C	F	A	B	C	A	C	C	B
Approach Delay		38.0			256.7			31.2			22.3	
Approach LOS		D			F			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.52
Intersection Signal Delay: 96.2 Intersection LOS: F
Intersection Capacity Utilization 92.7% ICU Level of Service F
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 1: Trafalgar Road & William Halton Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	130	157	98	82	1329	16	101	1316	26	133	900	496
v/c Ratio	0.76	0.16	0.20	0.17	1.52	0.03	0.32	0.68	0.03	0.63	0.43	0.60
Control Delay	57.5	40.3	8.2	29.5	273.8	0.1	16.1	33.0	0.1	31.0	26.1	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.5	40.3	8.2	29.5	273.8	0.1	16.1	33.0	0.1	31.0	26.1	13.1
Queue Length 50th (m)	25.4	18.7	0.0	15.5	~283.3	0.0	12.6	124.2	0.0	17.0	71.6	37.5
Queue Length 95th (m)	#54.1	28.8	14.7	27.8	#328.2	0.0	21.7	151.0	0.0	35.2	88.5	77.6
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	172	958	492	481	877	460	376	1927	744	244	2097	829
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.16	0.20	0.17	1.52	0.03	0.27	0.68	0.03	0.55	0.43	0.60

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	152	95	80	1289	16	98	1277	25	129	873	481
Future Volume (veh/h)	126	152	95	80	1289	16	98	1277	25	129	873	481
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	130	157	98	82	1329	16	101	1316	26	133	900	496
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	167	1013	444	421	877	404	278	2018	735	238	2168	686
Arrive On Green	0.07	0.28	0.28	0.05	0.26	0.26	0.05	0.47	0.47	0.06	0.48	0.48
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4262	1553	1691	4515	1429
Grp Volume(v), veh/h	130	157	98	82	1329	16	101	1316	26	133	900	496
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1421	1553	1691	1505	1429
Q Serve(g_s), s	7.7	4.6	6.6	4.6	36.4	1.1	4.0	32.9	1.3	5.6	18.1	38.7
Cycle Q Clear(g_c), s	7.7	4.6	6.6	4.6	36.4	1.1	4.0	32.9	1.3	5.6	18.1	38.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	1013	444	421	877	404	278	2018	735	238	2168	686
V/C Ratio(X)	0.78	0.15	0.22	0.19	1.52	0.04	0.36	0.65	0.04	0.56	0.42	0.72
Avail Cap(c_a), veh/h	167	1013	444	459	877	404	368	2018	735	310	2168	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	37.9	38.6	35.1	51.8	38.7	18.3	28.1	19.7	22.7	23.6	29.0
Incr Delay (d2), s/veh	20.2	0.2	0.5	0.2	237.7	0.1	0.8	1.7	0.1	2.1	0.6	6.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	2.3	3.0	2.3	45.9	0.5	2.0	13.2	0.6	2.7	7.6	16.5
LnGrp Delay(d),s/veh	58.3	38.0	39.1	35.4	289.5	38.8	19.1	29.7	19.8	24.8	24.2	35.5
LnGrp LOS	E	D	D	D	F	D	B	C	B	C	C	D
Approach Vol, veh/h		385			1427			1443			1529	
Approach Delay, s/veh		45.1			272.0			28.8			27.9	
Approach LOS		D			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	73.2	9.7	46.3	9.9	74.1	12.6	43.4
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	13.8	* 60	9.6	36.4	13.8	* 60	9.6	36.4
Max Q Clear Time (g_c+I1), s	7.6	34.9	6.6	8.6	6.0	40.7	9.7	38.4
Green Ext Time (p_c), s	0.2	18.4	0.1	3.0	0.2	14.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	102.4
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

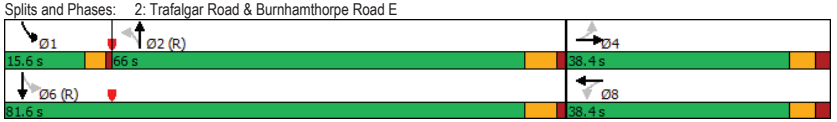
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	82	173	46	61	194	17	107	1040	65	17	803	149
Future Volume (vph)	82	173	46	61	194	17	107	1040	65	17	803	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.80	*0.80	1.00	*0.80	*0.80
Frt		0.968			0.988			0.991			0.976	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1788	0	1805	1811	0	1770	4202	0	1805	4151	0
Flt Permitted	0.358			0.336			0.225			0.155		
Satd. Flow (perm)	660	1788	0	638	1811	0	419	4202	0	294	4151	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			4			10			49	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	90	190	51	67	213	19	118	1143	71	19	882	164
Shared Lane Traffic (%)												
Lane Group Flow (vph)	90	241	0	67	232	0	118	1214	0	19	1046	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		7.0	20.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		26.0	26.0		11.0	26.0	
Total Split (s)	38.4	38.4		38.4	38.4		66.0	66.0		15.6	81.6	
Total Split (%)	32.0%	32.0%		32.0%	32.0%		55.0%	55.0%		13.0%	68.0%	
Maximum Green (s)	32.4	32.4		32.4	32.4		60.0	60.0		11.6	75.6	
Yellow Time (s)	3.7	3.7		3.7	3.7		4.6	4.6		3.0	4.6	
All-Red Time (s)	2.3	2.3		2.3	2.3		1.4	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	20.8	20.8		20.8	20.8		82.8	82.8		89.2	87.2	
Actuated g/C Ratio	0.17	0.17		0.17	0.17		0.69	0.69		0.74	0.73	
v/c Ratio	0.79	0.76		0.61	0.73		0.41	0.42		0.06	0.35	
Control Delay	88.3	59.5		67.4	59.2		17.0	10.1		5.6	6.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	88.3	59.5		67.4	59.2		17.0	10.1		5.6	6.5	
LOS	F	E		E	E		B	B		A	A	
Approach Delay		67.3			61.0			10.7			6.5	
Approach LOS		E			E			B			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 20.4 Intersection LOS: C
Intersection Capacity Utilization 75.7% ICU Level of Service D
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	90	241	67	232	118	1214	19	1046
v/c Ratio	0.79	0.76	0.61	0.73	0.41	0.42	0.06	0.35
Control Delay	88.3	59.5	67.4	59.2	17.0	10.1	5.6	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.3	59.5	67.4	59.2	17.0	10.1	5.6	6.5
Queue Length 50th (m)	21.6	54.9	15.5	54.1	12.2	52.7	1.1	32.8
Queue Length 95th (m)	#41.8	78.4	30.3	76.8	40.6	99.4	3.8	50.8
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	178	490	172	491	288	2901	364	3029
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.49	0.39	0.47	0.41	0.42	0.05	0.35

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	173	46	61	194	17	107	1040	65	17	803	149
Future Volume (veh/h)	82	173	46	61	194	17	107	1040	65	17	803	149
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1847	1900	1900	1833	1900	1863	1767	1900	1900	1772	1900
Adj Flow Rate, veh/h	90	190	51	67	213	19	118	1143	71	19	882	164
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	178	307	83	172	363	32	374	2656	165	399	2577	477
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	1.00	1.00	1.00	0.03	0.68	0.68
Sat Flow, veh/h	1133	1404	377	1157	1659	148	537	4281	266	1810	3783	701
Grp Volume(v), veh/h	90	0	241	67	0	232	118	755	459	19	660	386
Grp Sat Flow(s),veh/h/ln	1133	0	1781	1157	0	1807	537	1414	1720	1810	1418	1648
Q Serve(g_s), s	9.3	0.0	14.7	6.7	0.0	13.8	2.4	0.0	0.0	0.4	11.6	11.7
Cycle Q Clear(g_c), s	23.1	0.0	14.7	21.3	0.0	13.8	6.8	0.0	0.0	0.4	11.6	11.7
Prop In Lane	1.00		0.21	1.00		0.08	1.00		0.15	1.00		0.42
Lane Grp Cap(c), veh/h	178	0	390	172	0	396	374	1754	1067	399	1931	1123
V/C Ratio(X)	0.51	0.00	0.62	0.39	0.00	0.59	0.32	0.43	0.43	0.05	0.34	0.34
Avail Cap(c_a), veh/h	235	0	481	231	0	488	374	1754	1067	525	1931	1123
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	0.0	42.3	52.0	0.0	42.0	0.2	0.0	0.0	6.8	8.0	8.0
Incr Delay (d2), s/veh	2.2	0.0	1.6	1.4	0.0	1.4	2.2	0.8	1.3	0.0	0.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	7.4	2.2	0.0	7.0	0.5	0.2	0.4	0.2	4.6	5.5
LnGrp Delay(d),s/veh	54.6	0.0	43.9	53.4	0.0	43.4	2.4	0.8	1.3	6.9	8.4	8.8
LnGrp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		331			299			1332			1065	
Approach Delay, s/veh		46.8			45.6			1.1			8.5	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	7.3	80.4		32.3		87.7		32.3
Change Period (Y+Rc), s	4.0	* 6		6.0		* 6		6.0
Max Green Setting (Gmax), s	11.6	* 60		32.4		* 76		32.4
Max Q Clear Time (g_c+I1), s	2.4	8.8		25.1		13.7		23.3
Green Ext Time (p_c), s	0.0	30.0		1.2		22.8		1.2

Intersection Summary

HCM 2010 Ctrl Delay		13.1	
HCM 2010 LOS		B	

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

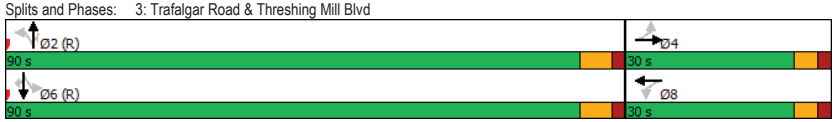
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	89	0	239	0	976	132	134	778	0
Future Volume (vph)	0	0	0	89	0	239	0	976	132	134	778	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt					0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3539	0	1410	2950	0	1863	4262	1404	1671	4262	1863
Flt Permitted				0.757						0.228		
Satd. Flow (perm)	1863	3539	0	1124	2950	0	1863	4262	1404	401	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					159				138			
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		175.7			120.2			286.4			537.5	
Travel Time (s)		12.7			8.7			12.9			24.2	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Heavy Vehicles (%)	2%	2%	2%	28%	2%	4%	2%	7%	15%	8%	7%	2%
Adj. Flow (vph)	0	0	0	93	0	249	0	1017	138	140	810	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	93	249	0	0	1017	138	140	810	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		41.6	41.6	41.6	41.6	41.6	41.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0					0	0	0	0	0	0
Act Effct Green (s)				15.6	15.6			92.3	92.3	92.3	92.3	
Actuated g/C Ratio				0.13	0.13			0.77	0.77	0.77	0.77	
v/c Ratio				0.64	0.48			0.31	0.12	0.45	0.25	
Control Delay				68.2	20.2			2.0	0.3	10.2	3.4	
Queue Delay				0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay				68.2	20.2			2.0	0.3	10.2	3.4	
LOS				E	C			A	A	B	A	
Approach Delay					33.2			1.8			4.4	
Approach LOS					C			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 20.4 (17%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 7.2 Intersection LOS: A
Intersection Capacity Utilization 59.4% ICU Level of Service B
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 3: Trafalgar Road & Threshing Mill Blvd



Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	93	249	1017	138	140	810
v/c Ratio	0.64	0.48	0.31	0.12	0.45	0.25
Control Delay	68.2	20.2	2.0	0.3	10.2	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.2	20.2	2.0	0.3	10.2	3.4
Queue Length 50th (m)	22.3	10.7	7.2	0.0	6.4	14.0
Queue Length 95th (m)	38.6	22.2	12.8	0.0	15.1	20.4
Internal Link Dist (m)		96.2	262.4			513.5
Turn Bay Length (m)	25.0			45.0	65.0	
Base Capacity (vph)	229	728	3279	1111	308	3279
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.34	0.31	0.12	0.45	0.25

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	89	0	239	0	976	132	134	778	0
Future Volume (veh/h)	0	0	0	89	0	239	0	976	132	134	778	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1484	1827	1900	1863	1776	1652	1759	1776	1863
Adj Flow Rate, veh/h	0	0	0	93	0	249	0	1017	138	140	810	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	2	2	2	28	2	4	2	7	15	8	7	2
Cap, veh/h	60	636	0	314	312	279	60	3066	1010	389	3066	1139
Arrive On Green	0.00	0.00	0.00	0.18	0.00	0.18	0.00	1.00	1.00	0.24	0.24	0.00
Sat Flow, veh/h	1126	3632	0	1414	1736	1553	671	4262	1404	458	4262	1583
Grp Volume(v), veh/h	0	0	0	93	0	249	0	1017	138	140	810	0
Grp Sat Flow(s),veh/h/ln	1126	1770	0	1414	1736	1553	671	1421	1404	458	1421	1583
Q Serve(g_s), s	0.0	0.0	0.0	6.9	0.0	18.8	0.0	0.0	0.0	31.1	18.6	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	6.9	0.0	18.8	0.0	0.0	0.0	31.1	18.6	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	636	0	314	312	279	60	3066	1010	389	3066	1139
V/C Ratio(X)	0.00	0.00	0.00	0.30	0.00	0.89	0.00	0.33	0.14	0.36	0.26	0.00
Avail Cap(c_a), veh/h	88	723	0	349	354	317	60	3066	1010	389	3066	1139
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.96	0.96	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	43.2	0.0	48.1	0.0	0.0	0.0	24.7	19.9	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.5	0.0	23.8	0.0	0.3	0.3	2.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	2.8	0.0	9.9	0.0	0.1	0.1	4.2	7.4	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	43.7	0.0	71.9	0.0	0.3	0.3	27.3	20.1	0.0
LnGrp LOS				D		E		A	A	C	C	
Approach Vol, veh/h		0			342			1155			950	
Approach Delay, s/veh		0.0			64.2			0.3			21.2	
Approach LOS					E			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		92.9		27.1		92.9		27.1
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		2.0		0.0		33.1		20.8
Green Ext Time (p_c), s		27.7		0.0		21.4		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	17.3
HCM 2010 LOS	B

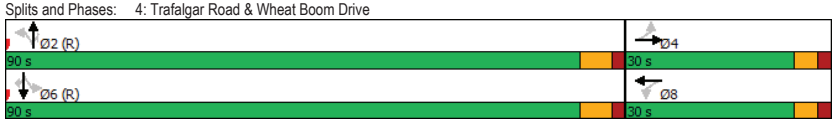
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	88	0	128	0	974	94	76	828	0
Future Volume (vph)	0	0	0	88	0	128	0	974	94	76	828	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt					0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3539	0	1327	2379	0	1863	4343	1292	1556	4262	1863
Flt Permitted				0.757						0.219		
Satd. Flow (perm)	1863	3539	0	1058	2379	0	1863	4343	1292	359	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					150				101			
Link Speed (k/h)		50			50			60			80	
Link Distance (m)		170.2			342.3			409.5			286.4	
Travel Time (s)		12.3			24.6			24.6			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Heavy Vehicles (%)	2%	2%	2%	36%	2%	29%	2%	5%	25%	16%	7%	2%
Adj. Flow (vph)	0	0	0	95	0	138	0	1047	101	82	890	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	95	138	0	0	1047	101	82	890	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0			
Pedestrian Calls (#/hr)	0	0					0	0	0			
Act Effct Green (s)				16.3	16.3			91.6	91.6	91.6	91.6	
Actuated g/C Ratio				0.14	0.14			0.76	0.76	0.76	0.76	
v/c Ratio				0.66	0.30			0.32	0.10	0.30	0.27	
Control Delay				69.6	7.2			5.1	1.2	6.7	3.4	
Queue Delay				0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay				69.6	7.2			5.1	1.2	6.7	3.4	
LOS				E	A			A	A	A	A	
Approach Delay					32.6			4.8			3.6	
Approach LOS					C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 13.2 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 7.1		Intersection LOS: A	
Intersection Capacity Utilization 59.4%		ICU Level of Service B	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	95	138	1047	101	82	890
v/c Ratio	0.66	0.30	0.32	0.10	0.30	0.27
Control Delay	69.6	7.2	5.1	1.2	6.7	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.6	7.2	5.1	1.2	6.7	3.4
Queue Length 50th (m)	22.7	0.0	28.2	0.0	3.1	13.7
Queue Length 95th (m)	39.3	7.6	45.7	5.0	9.0	22.2
Internal Link Dist (m)		318.3	385.5			262.4
Turn Bay Length (m)	25.0			45.0	65.0	
Base Capacity (vph)	216	605	3314	1009	273	3252
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.23	0.32	0.10	0.30	0.27

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	88	0	128	0	974	94	76	828	0
Future Volume (veh/h)	0	0	0	88	0	128	0	974	94	76	828	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1397	1473	1900	1863	1810	1520	1638	1776	1863
Adj Flow Rate, veh/h	0	0	0	95	0	138	0	1047	101	82	890	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Percent Heavy Veh, %	2	2	2	36	2	29	2	5	25	16	7	2
Cap, veh/h	60	467	0	236	185	165	60	3332	991	357	3269	1215
Arrive On Green	0.00	0.00	0.00	0.13	0.00	0.13	0.00	0.77	0.77	1.00	1.00	0.00
Sat Flow, veh/h	1246	3632	0	1331	1399	1252	622	4343	1292	429	4262	1583
Grp Volume(v), veh/h	0	0	0	95	0	138	0	1047	101	82	890	0
Grp Sat Flow(s),veh/h/ln	1246	1770	0	1331	1399	1252	622	1448	1292	429	1421	1583
Q Serve(g_s), s	0.0	0.0	0.0	8.0	0.0	12.9	0.0	8.9	2.4	2.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	8.0	0.0	12.9	0.0	8.9	2.4	11.8	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	467	0	236	185	165	60	3332	991	357	3269	1215
V/C Ratio(X)	0.00	0.00	0.00	0.40	0.00	0.84	0.00	0.31	0.10	0.23	0.27	0.00
Avail Cap(c_a), veh/h	150	723	0	332	286	256	60	3332	991	357	3269	1215
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	48.7	0.0	50.8	0.0	4.3	3.5	0.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.1	0.0	13.1	0.0	0.2	0.2	1.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	3.0	0.0	5.0	0.0	3.6	0.9	0.5	0.1	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	49.8	0.0	63.9	0.0	4.5	3.7	2.0	0.2	0.0
LnGrp LOS				D		E		A	A	A	A	
Approach Vol, veh/h		0			233			1148			972	
Approach Delay, s/veh		0.0			58.1			4.5			0.4	
Approach LOS					E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		98.7		21.3		98.7		21.3
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		10.9		0.0		13.8		14.9
Green Ext Time (p_c), s		13.1		0.0		12.3		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	8.1
HCM 2010 LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	274	1425	215	216	1872	11	263	763	233	123	520	249
Future Volume (vph)	274	1425	215	216	1872	11	263	763	233	123	520	249
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98	1.00			1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	4343	1538	1736	4343	1524
Flt Permitted	0.950			0.080			0.305			0.160		
Satd. Flow (perm)	3400	5085	1557	142	4715	1292	556	4343	1538	292	4343	1497
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			219			105			238			254
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	280	1454	219	220	1910	11	268	779	238	126	531	254
Shared Lane Traffic (%)												
Lane Group Flow (vph)	280	1454	219	220	1910	11	268	779	238	126	531	254
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

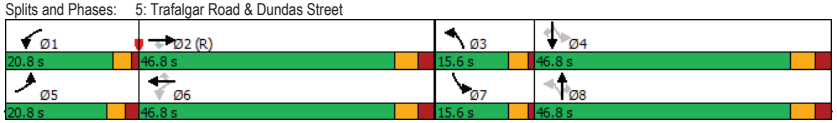
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5	16.5	11.0	16.5	16.5
Total Split (s)	20.8	46.8	46.8	20.8	46.8	46.8	15.6	46.8	46.8	15.6	46.8	46.8
Total Split (%)	16.0%	36.0%	36.0%	16.0%	36.0%	36.0%	12.0%	36.0%	36.0%	12.0%	36.0%	36.0%
Maximum Green (s)	15.8	40.4	40.4	16.8	40.4	40.4	11.6	40.3	40.3	11.6	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	16.0	49.7	49.7	70.0	50.1	50.1	45.1	31.0	31.0	43.8	30.4	30.4
Actuated g/C Ratio	0.12	0.38	0.38	0.54	0.39	0.39	0.35	0.24	0.24	0.34	0.23	0.23
v/c Ratio	0.67	0.75	0.30	0.77	1.05	0.02	0.90	0.75	0.43	0.57	0.52	0.47
Control Delay	62.5	39.2	5.3	65.1	63.0	0.0	65.3	50.6	7.0	37.0	44.8	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.5	39.2	5.3	65.1	63.0	0.0	65.3	50.6	7.0	37.0	44.8	7.2
LOS	E	D	A	E	E	A	E	D	A	D	D	A
Approach Delay		38.7			62.9			45.6			33.2	
Approach LOS		D			E			D			C	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 40.3 (31%), Referenced to phase 2:EBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 47.6 — Intersection LOS: D
Intersection Capacity Utilization 89.7% — ICU Level of Service E
Analysis Period (min) 15

* User Entered Value

Splits and Phases: 5: Trafalgar Road & Dundas Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	280	1454	219	220	1910	11	268	779	238	126	531	254
v/c Ratio	0.67	0.75	0.30	0.77	1.05	0.02	0.90	0.75	0.43	0.57	0.52	0.47
Control Delay	62.5	39.2	5.3	65.1	63.0	0.0	65.3	50.6	7.0	37.0	44.8	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.5	39.2	5.3	65.1	63.0	0.0	65.3	50.6	7.0	37.0	44.8	7.2
Queue Length 50th (m)	37.6	126.1	0.0	50.8	~202.7	0.0	52.9	81.9	0.0	22.7	52.2	0.0
Queue Length 95th (m)	52.1	#167.4	18.4	m61.3	#268.4	m0.0	#85.8	93.4	19.9	34.6	61.9	20.6
Internal Link Dist (m)		530.9			391.5			307.2			385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Base Capacity (vph)	443	1942	730	301	1818	562	297	1346	641	228	1346	639
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.75	0.30	0.73	1.05	0.02	0.90	0.58	0.37	0.55	0.39	0.40

Intersection Summary

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	274	1425	215	216	1872	11	263	763	233	123	520	249
Future Volume (veh/h)	274	1425	215	216	1872	11	263	763	233	123	520	249
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1810	1827	1810	1792
Adj Flow Rate, veh/h	280	1454	219	220	1910	11	268	779	238	126	531	254
Adj No. of Lanes	2	3	1	1	3	1	1	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	340	2199	683	269	1968	538	290	1060	373	221	978	341
Arrive On Green	0.10	0.43	0.43	0.09	0.42	0.42	0.09	0.24	0.24	0.07	0.23	0.23
Sat Flow, veh/h	3408	5085	1579	1691	4715	1288	1740	4343	1529	1740	4343	1513
Grp Volume(v), veh/h	280	1454	219	220	1910	11	268	779	238	126	531	254
Grp Sat Flow(s),veh/h/ln	1704	1695	1579	1691	1572	1288	1740	1448	1529	1740	1448	1513
Q Serve(g_s), s	10.5	29.5	11.9	9.5	51.6	0.7	11.6	21.5	18.1	7.1	14.0	20.3
Cycle Q Clear(g_c), s	10.5	29.5	11.9	9.5	51.6	0.7	11.6	21.5	18.1	7.1	14.0	20.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	340	2199	683	269	1968	538	290	1060	373	221	978	341
V/C Ratio(X)	0.82	0.66	0.32	0.82	0.97	0.02	0.93	0.73	0.64	0.57	0.54	0.74
Avail Cap(c_a), veh/h	414	2199	683	332	1968	538	290	1346	474	253	1346	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.4	29.3	24.3	25.8	37.1	22.3	42.2	45.3	44.0	36.6	44.4	46.9
Incr Delay (d2), s/veh	11.3	1.6	1.2	13.0	14.2	0.0	34.1	1.8	2.2	2.8	0.6	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	14.1	5.4	5.4	24.9	0.2	10.1	8.8	7.9	3.6	5.7	8.9
LnGrp Delay(d),s/veh	68.7	30.9	25.6	38.8	51.3	22.3	76.3	47.0	46.2	39.4	45.0	51.6
LnGrp LOS	E	C	C	D	D	C	E	D	D	D	D	D
Approach Vol, veh/h		1953			2141			1285			911	
Approach Delay, s/veh		35.7			49.9			53.0			46.1	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	62.6	15.6	35.8	18.0	60.7	13.2	38.2
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	16.8	40.4	11.6	40.3	15.8	40.4	11.6	40.3
Max Q Clear Time (g_c+I1), s	11.5	31.5	13.6	22.3	12.5	53.6	9.1	23.5
Green Ext Time (p_c), s	0.5	8.2	0.0	6.0	0.5	0.0	0.1	7.8

Intersection Summary	
HCM 2010 Ctrl Delay	45.6
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	1442	60	260	1987	107	112	80	136	101	55	45
Future Volume (vph)	66	1442	60	260	1987	107	112	80	136	101	55	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00		0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.933	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3213	0
Flt Permitted	0.075			0.070			0.684			0.702		
Satd. Flow (perm)	137	4940	1470	130	4673	1281	1241	1900	1577	1318	3213	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			104			94			145		48	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	70	1534	64	277	2114	114	119	85	145	107	59	48
Shared Lane Traffic (%)												
Lane Group Flow (vph)	70	1534	64	277	2114	114	119	85	145	107	107	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	11.0	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	11.7	57.2	57.2	26.0	71.5	71.5	46.8	46.8	46.8	46.8	46.8	
Total Split (%)	9.0%	44.0%	44.0%	20.0%	55.0%	55.0%	36.0%	36.0%	36.0%	36.0%	36.0%	
Maximum Green (s)	7.7	50.4	50.4	22.0	64.7	64.7	39.4	39.4	39.4	39.4	39.4	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)		24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	63.5	53.3	53.3	79.2	67.2	67.2	39.4	39.4	39.4	39.4	39.4	
Actuated g/C Ratio	0.49	0.41	0.41	0.61	0.52	0.52	0.30	0.30	0.30	0.30	0.30	
v/c Ratio	0.45	0.76	0.10	0.87	0.88	0.16	0.32	0.15	0.25	0.27	0.11	
Control Delay	34.9	23.6	3.7	60.2	33.5	5.4	37.8	34.0	6.2	36.7	18.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	34.9	23.6	3.7	60.2	33.5	5.4	37.8	34.0	6.2	36.7	18.8	
LOS	C	C	A	E	C	A	D	C	A	D	B	
Approach Delay		23.3			35.2			23.8			27.7	
Approach LOS		C			D			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 36.4 (28%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 29.8		Intersection LOS: C	
Intersection Capacity Utilization 91.9%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 6: Postridge Drive & Dundas Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	70	1534	64	277	2114	114	119	85	145	107	107
v/c Ratio	0.45	0.76	0.10	0.87	0.88	0.16	0.32	0.15	0.25	0.27	0.11
Control Delay	34.9	23.6	3.7	60.2	33.5	5.4	37.8	34.0	6.2	36.7	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.9	23.6	3.7	60.2	33.5	5.4	37.8	34.0	6.2	36.7	18.8
Queue Length 50th (m)	8.2	40.6	0.0	55.2	186.1	2.7	24.8	16.7	0.0	21.9	5.9
Queue Length 95th (m)	m19.0	85.3	m3.2	#96.1	211.5	12.9	42.7	30.4	15.6	38.5	13.3
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	161	2027	664	356	2415	707	376	575	579	399	1007
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.76	0.10	0.78	0.88	0.16	0.32	0.15	0.25	0.27	0.11

Intersection Summary
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	1442	60	260	1987	107	112	80	136	101	55	45
Future Volume (veh/h)	66	1442	60	260	1987	107	112	80	136	101	55	45
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1829	1900
Adj Flow Rate, veh/h	70	1534	64	277	2114	114	119	85	145	107	59	48
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	158	2224	670	309	2371	665	403	576	481	367	579	423
Arrive On Green	0.05	0.45	0.45	0.11	0.51	0.51	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1740	4940	1489	1774	4673	1310	1249	1900	1586	1151	1911	1396
Grp Volume(v), veh/h	70	1534	64	277	2114	114	119	85	145	107	53	54
Grp Sat Flow(s),veh/h/ln	1740	1647	1489	1774	1558	1310	1249	1900	1586	1151	1737	1569
Q Serve(g_s), s	2.7	32.2	3.2	11.1	52.9	6.1	9.9	4.2	9.1	9.7	2.9	3.2
Cycle Q Clear(g_c), s	2.7	32.2	3.2	11.1	52.9	6.1	13.1	4.2	9.1	14.0	2.9	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.89
Lane Grp Cap(c), veh/h	158	2224	670	309	2371	665	403	576	481	367	527	476
V/C Ratio(X)	0.44	0.69	0.10	0.90	0.89	0.17	0.30	0.15	0.30	0.29	0.10	0.11
Avail Cap(c_a), veh/h	175	2224	670	420	2371	665	403	576	481	367	527	476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.5	28.5	20.5	27.4	28.8	17.3	37.4	33.0	34.7	38.1	32.6	32.7
Incr Delay (d2), s/veh	1.9	1.8	0.3	17.2	5.6	0.6	1.9	0.5	1.6	2.0	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	15.0	1.4	11.2	23.9	2.3	3.6	2.3	4.2	3.3	1.4	1.5
LnGrp Delay(d),s/veh	30.5	30.3	20.8	44.6	34.4	17.8	39.3	33.6	36.4	40.2	32.9	33.2
LnGrp LOS	C	C	C	D	C	B	D	C	D	D	C	C
Approach Vol, veh/h		1668			2505			349			214	
Approach Delay, s/veh		29.9			34.8			36.7			36.6	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.9	65.3		46.8	10.4	72.8		46.8
Change Period (Y+Rc), s	4.0	6.8		* 7.4	4.0	6.8		* 7.4
Max Green Setting (Gmax), s	22.0	50.4		* 39	7.7	64.7		* 39
Max Q Clear Time (g_c+I1), s	13.1	34.2		15.1	4.7	54.9		16.0
Green Ext Time (p_c), s	0.8	11.1		1.9	0.0	8.8		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	33.3
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	213	88	186	43	58	180
Future Volume (vph)	213	88	186	43	58	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.975			0.850
Flt Protected		0.966			0.950	
Satd. Flow (prot)	0	1540	1740	0	1671	1482
Flt Permitted		0.966			0.950	
Satd. Flow (perm)	0	1540	1740	0	1671	1482
Link Speed (k/h)		50	50		50	
Link Distance (m)		120.2	260.2		319.6	
Travel Time (s)		8.7	18.7		23.0	
Confl. Peds. (#/hr)					4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	25%	5%	8%	0%	8%	9%
Adj. Flow (vph)	242	100	211	49	66	205
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	342	260	0	66	205
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	42.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	213	88	186	43	58	180
Future Vol, veh/h	213	88	186	43	58	180
Conflicting Peds, #/hr	0	0	0	0	4	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	25	5	8	0	8	9
Mvmt Flow	242	100	211	49	66	205

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	260	0	-	0	824	236
Stage 1	-	-	-	-	236	-
Stage 2	-	-	-	-	588	-
Critical Hdwy	4.35	-	-	-	6.48	6.29
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.425	-	-	-	3.572	3.381
Pot Cap-1 Maneuver	1182	-	-	-	335	786
Stage 1	-	-	-	-	789	-
Stage 2	-	-	-	-	544	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1182	-	-	-	262	786
Mov Cap-2 Maneuver	-	-	-	-	262	-
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	544	-

Approach	EB	WB	SB
HCM Control Delay, s	6.2	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1182	-	-	-	262	786
HCM Lane V/C Ratio	0.205	-	-	-	0.252	0.26
HCM Control Delay (s)	8.8	0	-	-	23.3	11.2
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q(veh)	0.8	-	-	-	1	1

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	86	141	0	0	0
Future Volume (vph)	0	86	141	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.865					
Flt Protected				0.950		
Satd. Flow (prot)	1611	0	0	3362	3539	0
Flt Permitted				0.950		
Satd. Flow (perm)	1611	0	0	3362	3539	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	51.6			89.3	74.2	
Travel Time (s)	3.7			6.4	5.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	93	153	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	93	0	0	153	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	86	141	0	0	0
Future Vol, veh/h	0	86	141	0	0	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	93	153	0	0	0

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	307	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	306	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	661	1083	1620	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	720	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	599	1083	1620	-	-	-
Mov Cap-2 Maneuver	599	-	-	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	720	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	7.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1620	-	1083	-	-
HCM Lane V/C Ratio	0.095	-	0.086	-	-
HCM Control Delay (s)	7.5	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.3	-	-

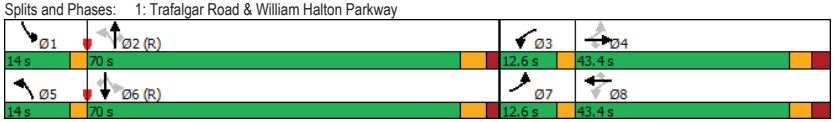
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	197	435	194	50	840	26	110	1011	60	197	703	129
Future Volume (vph)	197	435	194	50	840	26	110	1011	60	197	703	129
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4262	1553	1687	4515	1429
Flt Permitted	0.100			0.424			0.293			0.158		
Satd. Flow (perm)	178	3610	1583	806	3374	1553	557	4262	1553	281	4515	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			200			77			78			133
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	203	448	200	52	866	27	113	1042	62	203	725	133
Shared Lane Traffic (%)												
Lane Group Flow (vph)	203	448	200	52	866	27	113	1042	62	203	725	133
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	12.6	43.4	43.4	12.6	43.4	43.4	14.0	70.0	70.0	14.0	70.0	70.0
Total Split (%)	9.0%	31.0%	31.0%	9.0%	31.0%	31.0%	10.0%	50.0%	50.0%	10.0%	50.0%	50.0%
Maximum Green (s)	9.6	36.4	36.4	9.6	36.4	36.4	11.0	63.1	63.1	11.0	63.1	63.1
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	51.5	39.9	39.9	48.5	36.4	36.4	76.4	63.3	63.3	79.6	64.9	64.9
Actuated g/C Ratio	0.37	0.28	0.28	0.35	0.26	0.26	0.55	0.45	0.45	0.57	0.46	0.46
v/c Ratio	1.20	0.44	0.34	0.15	0.99	0.06	0.29	0.54	0.08	0.76	0.35	0.18
Control Delay	165.6	43.3	6.8	29.2	78.8	0.2	15.4	29.2	3.0	33.8	24.8	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	165.6	43.3	6.8	29.2	78.8	0.2	15.4	29.2	3.0	33.8	24.8	4.1
LOS	F	D	A	C	E	A	B	C	A	C	C	A
Approach Delay		63.9			73.8			26.6			23.9	
Approach LOS		E			E			C			C	

Intersection Summary		
Area Type:	Other	
Cycle Length: 140		
Actuated Cycle Length: 140		
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green		
Natural Cycle: 75		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 1.20		
Intersection Signal Delay: 44.6	Intersection LOS: D	
Intersection Capacity Utilization 82.8%	ICU Level of Service E	
Analysis Period (min) 15		

* User Entered Value

Splits and Phases: 1: Trafalgar Road & William Halton Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	203	448	200	52	866	27	113	1042	62	203	725	133
v/c Ratio	1.20	0.44	0.34	0.15	0.99	0.06	0.29	0.54	0.08	0.76	0.35	0.18
Control Delay	165.6	43.3	6.8	29.2	78.8	0.2	15.4	29.2	3.0	33.8	24.8	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	165.6	43.3	6.8	29.2	78.8	0.2	15.4	29.2	3.0	33.8	24.8	4.1
Queue Length 50th (m)	~55.3	57.4	0.0	9.7	133.0	0.0	14.2	90.5	0.0	27.2	55.5	0.0
Queue Length 95th (m)	#110.0	76.1	19.7	19.2	#178.6	0.0	23.8	107.1	6.0	#49.1	69.2	12.1
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	169	1027	593	356	877	460	409	1926	744	270	2091	733
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.20	0.44	0.34	0.15	0.99	0.06	0.28	0.54	0.08	0.75	0.35	0.18

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	197	435	194	50	840	26	110	1011	60	197	703	129
Future Volume (veh/h)	197	435	194	50	840	26	110	1011	60	197	703	129
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	203	448	200	52	866	27	113	1042	62	203	725	133
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	170	1030	452	276	877	404	390	1929	703	315	2167	686
Arrive On Green	0.07	0.29	0.29	0.04	0.26	0.26	0.05	0.45	0.45	0.08	0.48	0.48
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4262	1553	1691	4515	1429
Grp Volume(v), veh/h	203	448	200	52	866	27	113	1042	62	203	725	133
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1421	1553	1691	1505	1429
Q Serve(g_s), s	9.6	14.2	14.5	2.9	35.8	1.8	4.6	24.8	3.2	8.7	13.9	7.5
Cycle Q Clear(g_c), s	9.6	14.2	14.5	2.9	35.8	1.8	4.6	24.8	3.2	8.7	13.9	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	170	1030	452	276	877	404	390	1929	703	315	2167	686
V/C Ratio(X)	1.19	0.44	0.44	0.19	0.99	0.07	0.29	0.54	0.09	0.65	0.33	0.19
Avail Cap(c_a), veh/h	170	1030	452	322	877	404	442	1929	703	318	2167	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.5	40.8	40.9	35.4	51.6	39.0	19.0	27.8	21.8	21.0	22.6	20.9
Incr Delay (d2), s/veh	130.7	0.6	1.5	0.3	27.3	0.1	0.4	1.1	0.2	4.4	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	7.2	6.5	1.5	20.0	0.8	2.3	9.9	1.4	4.4	5.9	3.1
LnGrp Delay(d),s/veh	171.3	41.5	42.4	35.7	78.8	39.2	19.4	28.9	22.1	25.4	23.0	21.5
LnGrp LOS	F	D	D	D	E	D	B	C	C	C	C	C
Approach Vol, veh/h		851			945			1217			1061	
Approach Delay, s/veh		72.6			75.3			27.6			23.2	
Approach LOS		E			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	70.3	9.1	46.9	9.9	74.1	12.6	43.4
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	11.0	* 63	9.6	36.4	11.0	* 63	9.6	36.4
Max Q Clear Time (g_c+I1), s	10.7	26.8	4.9	16.5	6.6	15.9	11.6	37.8
Green Ext Time (p_c), s	0.0	19.2	0.0	7.4	0.1	15.2	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	47.0
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

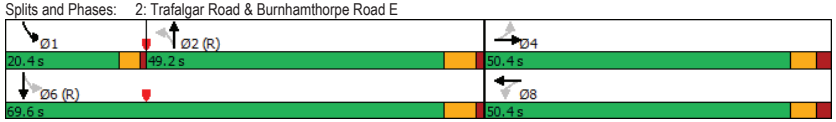
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	205	65	47	129	32	73	898	78	50	774	81
Future Volume (vph)	130	205	65	47	129	32	73	898	78	50	774	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.80	*0.80	1.00	*0.80	*0.80
Frt		0.964			0.970			0.988			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1779	0	1805	1786	0	1770	4196	0	1805	4181	0
Flt Permitted	0.531			0.282			0.255			0.180		
Satd. Flow (perm)	980	1779	0	536	1786	0	475	4196	0	342	4181	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			12			11			19	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	143	225	71	52	142	35	80	987	86	55	851	89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	143	296	0	52	177	0	80	1073	0	55	940	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		7.0	20.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		26.0	26.0		11.0	26.0	
Total Split (s)	50.4	50.4		50.4	50.4		49.2	49.2		20.4	69.6	
Total Split (%)	42.0%	42.0%		42.0%	42.0%		41.0%	41.0%		17.0%	58.0%	
Maximum Green (s)	44.4	44.4		44.4	44.4		43.2	43.2		16.4	63.6	
Yellow Time (s)	3.7	3.7		3.7	3.7		4.6	4.6		3.0	4.6	
All-Red Time (s)	2.3	2.3		2.3	2.3		1.4	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	24.8	24.8		24.8	24.8		74.1	74.1		85.2	83.2	
Actuated g/C Ratio	0.21	0.21		0.21	0.21		0.62	0.62		0.71	0.69	
v/c Ratio	0.71	0.78		0.47	0.47		0.27	0.41		0.17	0.32	
Control Delay	62.1	56.4		54.1	41.7		15.7	12.5		7.6	8.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	62.1	56.4		54.1	41.7		15.7	12.5		7.6	8.1	
LOS	E	E		D	D		B	B		A	A	
Approach Delay		58.3			44.5			12.7			8.1	
Approach LOS		E			D			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 20.8		Intersection LOS: C	
Intersection Capacity Utilization 76.5%		ICU Level of Service D	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	143	296	52	177	80	1073	55	940
v/c Ratio	0.71	0.78	0.47	0.47	0.27	0.41	0.17	0.32
Control Delay	62.1	56.4	54.1	41.7	15.7	12.5	7.6	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.1	56.4	54.1	41.7	15.7	12.5	7.6	8.1
Queue Length 50th (m)	33.2	66.6	11.4	36.2	9.7	60.1	3.6	33.7
Queue Length 95th (m)	52.8	90.8	23.4	53.7	26.5	91.0	9.7	52.7
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	362	667	198	668	293	2595	442	2903
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.44	0.26	0.26	0.27	0.41	0.12	0.32

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	205	65	47	129	32	73	898	78	50	774	81
Future Volume (veh/h)	130	205	65	47	129	32	73	898	78	50	774	81
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1900	1841	1900	1863	1770	1900	1900	1767	1900
Adj Flow Rate, veh/h	143	225	71	52	142	35	80	987	86	55	851	89
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	244	321	101	154	340	84	400	2418	210	458	2707	282
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	1.00	1.00	1.00	0.05	0.66	0.66
Sat Flow, veh/h	1191	1346	425	1100	1427	352	594	4174	363	1810	4093	426
Grp Volume(v), veh/h	143	0	296	52	0	177	80	669	404	55	587	353
Grp Sat Flow(s),veh/h/ln	1191	0	1770	1100	0	1779	594	1416	1706	1810	1414	1692
Q Serve(g_s), s	13.8	0.0	18.3	5.4	0.0	10.1	0.3	0.0	0.0	1.3	10.6	10.7
Cycle Q Clear(g_c), s	23.9	0.0	18.3	23.8	0.0	10.1	1.1	0.0	0.0	1.3	10.6	10.7
Prop In Lane	1.00		0.24	1.00		0.20	1.00		0.21	1.00		0.25
Lane Grp Cap(c), veh/h	244	0	422	154	0	424	400	1640	988	458	1870	1119
V/C Ratio(X)	0.59	0.00	0.70	0.34	0.00	0.42	0.20	0.41	0.41	0.12	0.31	0.32
Avail Cap(c_a), veh/h	400	0	655	299	0	658	400	1640	988	617	1870	1119
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.8	0.0	41.8	52.7	0.0	38.6	0.0	0.0	0.0	7.8	8.7	8.7
Incr Delay (d2), s/veh	2.2	0.0	2.1	1.3	0.0	0.7	1.1	0.8	1.3	0.1	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	9.2	1.7	0.0	5.0	0.1	0.2	0.3	0.7	4.3	5.2
LnGrp Delay(d),s/veh	51.0	0.0	43.9	53.9	0.0	39.3	1.1	0.8	1.3	7.9	9.1	9.4
LnGrp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		439			229			1153			995	
Approach Delay, s/veh		46.2			42.6			1.0			9.2	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	9.9	75.5		34.6		85.4		34.6
Change Period (Y+Rc), s	4.0	* 6		6.0		* 6		6.0
Max Green Setting (Gmax), s	16.4	* 43		44.4		* 64		44.4
Max Q Clear Time (g_c+I1), s	3.3	3.1		25.9		12.7		25.8
Green Ext Time (p_c), s	0.1	21.7		2.7		18.3		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	14.3
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	6	66	127	5	176	33	797	59	132	828	13
Future Volume (vph)	37	6	66	127	5	176	33	797	59	132	828	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.863			0.854				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3054	0	1410	2966	0	1770	4262	1404	1671	4262	1583
Flt Permitted	0.622			0.703			0.276			0.288		
Satd. Flow (perm)	1159	3054	0	1044	2966	0	514	4262	1404	507	4262	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		72			183				61			23
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		175.7			120.2			286.4			537.5	
Travel Time (s)		12.7			8.7			12.9			24.2	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Heavy Vehicles (%)	2%	2%	2%	28%	2%	4%	2%	7%	15%	8%	7%	2%
Adj. Flow (vph)	40	7	72	132	5	183	36	830	61	138	863	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	79	0	132	188	0	36	830	61	138	863	14
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

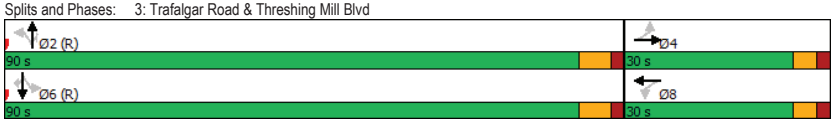
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		41.6	41.6	41.6	41.6	41.6	41.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0					0	0	0	0	0	0
Act Effct Green (s)	19.3	19.3		19.3	19.3		88.6	88.6	88.6	88.6	88.6	88.6
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.74	0.74	0.74	0.74	0.74	0.74
v/c Ratio	0.22	0.14		0.79	0.30		0.09	0.26	0.06	0.37	0.27	0.01
Control Delay	44.3	11.3		77.9	7.5		1.3	1.4	0.2	7.0	3.5	0.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.3	11.3		77.9	7.5		1.3	1.4	0.2	7.0	3.5	0.2
LOS	D	B		E	A		A	A	A	A	A	A
Approach Delay		22.4			36.5			1.3			3.9	
Approach LOS		C			D			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 13.2 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 8.2 Intersection LOS: A
Intersection Capacity Utilization 66.0% ICU Level of Service C
Analysis Period (min) 15

* User Entered Value

Splits and Phases: 3: Trafalgar Road & Threshing Mill Blvd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	40	79	132	188	36	830	61	138	863	14
v/c Ratio	0.22	0.14	0.79	0.30	0.09	0.26	0.06	0.37	0.27	0.01
Control Delay	44.3	11.3	77.9	7.5	1.3	1.4	0.2	7.0	3.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.3	11.3	77.9	7.5	1.3	1.4	0.2	7.0	3.5	0.2
Queue Length 50th (m)	8.6	0.7	31.5	0.5	0.3	2.9	0.0	4.9	12.7	0.0
Queue Length 95th (m)	18.7	7.6	52.9	10.6	0.8	4.0	0.0	14.7	14.8	0.3
Internal Link Dist (m)		151.7		96.2		262.4			513.5	
Turn Bay Length (m)	25.0		25.0		75.0		45.0	65.0		45.0
Base Capacity (vph)	236	680	213	751	379	3146	1052	374	3146	1174
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.12	0.62	0.25	0.09	0.26	0.06	0.37	0.27	0.01

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	6	66	127	5	176	33	797	59	132	828	13
Future Volume (veh/h)	37	6	66	127	5	176	33	797	59	132	828	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1484	1828	1900	1863	1776	1652	1759	1776	1863
Adj Flow Rate, veh/h	40	7	72	132	5	183	36	830	61	138	862	14
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	2	2	2	28	2	4	2	7	15	8	7	2
Cap, veh/h	149	325	291	212	319	286	511	3048	1004	480	3048	1132
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	1.00	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1191	1770	1583	1047	1736	1554	630	4262	1404	587	4262	1583
Grp Volume(v), veh/h	40	7	72	132	5	183	36	830	61	138	862	14
Grp Sat Flow(s),veh/h/ln	1191	1770	1583	1047	1736	1554	630	1421	1404	587	1421	1583
Q Serve(g_s), s	3.9	0.4	4.7	14.8	0.3	13.1	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	16.9	0.4	4.7	19.5	0.3	13.1	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	325	291	212	319	286	511	3048	1004	480	3048	1132
V/C Ratio(X)	0.27	0.02	0.25	0.62	0.02	0.64	0.07	0.27	0.06	0.29	0.28	0.01
Avail Cap(c_a), veh/h	173	361	323	233	355	317	511	3048	1004	480	3048	1132
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.1	40.1	41.9	50.2	40.1	45.3	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.4	4.4	0.0	3.7	0.3	0.2	0.1	1.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.2	2.1	4.5	0.1	5.9	0.0	0.1	0.0	0.2	0.1	0.0
LnGrp Delay(d),s/veh	54.1	40.1	42.3	54.6	40.1	49.0	0.3	0.2	0.1	1.5	0.2	0.0
LnGrp LOS	D	D	D	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		119			320			927			1014	
Approach Delay, s/veh		46.1			51.1			0.2			0.4	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		92.4		27.6		92.4		27.6
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		2.0		18.9		2.0		21.5
Green Ext Time (p_c), s		20.3		0.3		25.3		0.6

Intersection Summary		
HCM 2010 Ctrl Delay		9.4
HCM 2010 LOS		A

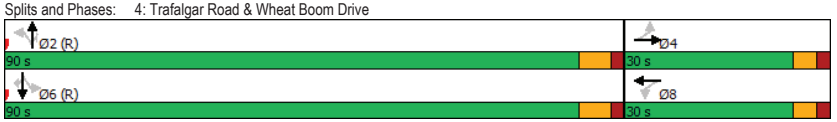
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	19	108	0	124	0	762	54	35	1116	0
Future Volume (vph)	0	0	19	108	0	124	0	762	54	35	1116	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3008	0	1327	2379	0	1863	4343	1292	1556	4262	1863
Flt Permitted				0.743						0.293		
Satd. Flow (perm)	1863	3008	0	1038	2379	0	1863	4343	1292	480	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		111			234				58			
Link Speed (k/h)		50			50			60			80	
Link Distance (m)		170.2			342.3			409.5			286.4	
Travel Time (s)		12.3			24.6			24.6			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Heavy Vehicles (%)	2%	2%	2%	36%	2%	29%	2%	5%	25%	16%	7%	2%
Adj. Flow (vph)	0	0	21	116	0	133	0	819	58	38	1200	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	0	116	133	0	0	819	58	38	1200	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0			
Pedestrian Calls (#/hr)	0	0					0	0	0			
Act Effct Green (s)		18.1		18.1	18.1			89.8	89.8	89.8	89.8	
Actuated g/C Ratio		0.15		0.15	0.15			0.75	0.75	0.75	0.75	
v/c Ratio		0.04		0.74	0.24			0.25	0.06	0.11	0.38	
Control Delay		0.1		75.1	1.0			5.3	1.6	4.5	4.2	
Queue Delay		0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay		0.1		75.1	1.0			5.3	1.6	4.5	4.2	
LOS		A		E	A			A	A	A	A	
Approach Delay		0.1			35.5			5.1			4.2	
Approach LOS		A			D			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 7.8		Intersection LOS: A	
Intersection Capacity Utilization 53.1%		ICU Level of Service A	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	21	116	133	819	58	38	1200
v/c Ratio	0.04	0.74	0.24	0.25	0.06	0.11	0.38
Control Delay	0.1	75.1	1.0	5.3	1.6	4.5	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.1	75.1	1.0	5.3	1.6	4.5	4.2
Queue Length 50th (m)	0.0	27.7	0.0	23.0	0.0	1.7	23.5
Queue Length 95th (m)	0.0	46.9	0.0	35.4	4.0	m4.7	35.7
Internal Link Dist (m)	146.2		318.3	385.5			262.4
Turn Bay Length (m)		25.0			45.0	65.0	
Base Capacity (vph)	702	211	671	3251	981	359	3190
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.55	0.20	0.25	0.06	0.11	0.38

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	19	108	0	124	0	762	54	35	1116	0
Future Volume (veh/h)	0	0	19	108	0	124	0	762	54	35	1116	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1397	1473	1900	1863	1810	1520	1638	1776	1863
Adj Flow Rate, veh/h	0	0	21	116	0	133	0	819	58	38	1200	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Percent Heavy Veh, %	2	2	2	36	2	29	2	5	25	16	7	2
Cap, veh/h	60	257	230	199	203	182	60	3274	974	446	3213	1194
Arrive On Green	0.00	0.00	0.15	0.15	0.00	0.15	0.00	0.75	0.75	1.00	1.00	0.00
Sat Flow, veh/h	1252	1770	1583	1039	1399	1252	464	4343	1292	554	4262	1583
Grp Volume(v), veh/h	0	0	21	116	0	133	0	819	58	38	1200	0
Grp Sat Flow(s),veh/h/ln	1252	1770	1583	1039	1399	1252	464	1448	1292	554	1421	1583
Q Serve(g_s), s	0.0	0.0	1.4	13.1	0.0	12.2	0.0	6.9	1.4	0.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.4	14.4	0.0	12.2	0.0	6.9	1.4	7.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	257	230	199	203	182	60	3274	974	446	3213	1194
V/C Ratio(X)	0.00	0.00	0.09	0.58	0.00	0.73	0.00	0.25	0.06	0.09	0.37	0.00
Avail Cap(c_a), veh/h	134	361	323	260	286	256	60	3274	974	446	3213	1194
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.95	0.95	0.00
Uniform Delay (d), s/veh	0.0	0.0	44.4	50.7	0.0	49.0	0.0	4.5	3.8	0.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.2	2.7	0.0	6.3	0.0	0.2	0.1	0.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	3.9	0.0	4.5	0.0	2.8	0.5	0.1	0.1	0.0
LnGrp Delay(d),s/veh	0.0	0.0	44.6	53.4	0.0	55.4	0.0	4.7	3.9	0.6	0.3	0.0
LnGrp LOS			D	D		E		A	A	A	A	
Approach Vol, veh/h		21			249			877			1238	
Approach Delay, s/veh		44.6			54.5			4.6			0.3	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		97.1		22.9		97.1		22.9
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		8.9		3.4		9.6		16.4
Green Ext Time (p_c), s		9.0		0.1		16.2		1.0

Intersection Summary

HCM 2010 Ctrl Delay	7.9
HCM 2010 LOS	A

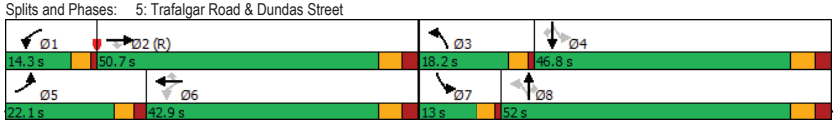
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	252	1693	233	185	1010	17	177	576	122	155	796	202
Future Volume (vph)	252	1693	233	185	1010	17	177	576	122	155	796	202
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98	1.00			1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	4343	1538	1736	4343	1524
Flt Permitted	0.950			0.085			0.130			0.340		
Satd. Flow (perm)	3400	5085	1557	151	4715	1292	237	4343	1538	621	4343	1497
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			213			172			138			206
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	257	1728	238	189	1031	17	181	588	124	158	812	206
Shared Lane Traffic (%)												
Lane Group Flow (vph)	257	1728	238	189	1031	17	181	588	124	158	812	206
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5	16.5	11.0	16.5	16.5
Total Split (s)	22.1	50.7	50.7	14.3	42.9	42.9	18.2	52.0	52.0	13.0	46.8	46.8
Total Split (%)	17.0%	39.0%	39.0%	11.0%	33.0%	33.0%	14.0%	40.0%	40.0%	10.0%	36.0%	36.0%
Maximum Green (s)	17.1	44.3	44.3	10.3	36.5	36.5	14.2	45.5	45.5	9.0	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	15.4	47.8	47.8	65.7	47.4	47.4	51.5	36.4	36.4	43.4	31.9	31.9
Actuated g/C Ratio	0.12	0.37	0.37	0.51	0.36	0.36	0.40	0.28	0.28	0.33	0.25	0.25
v/c Ratio	0.64	0.92	0.34	0.72	0.60	0.03	0.73	0.48	0.23	0.56	0.76	0.39
Control Delay	61.9	49.4	7.0	68.9	26.1	0.1	43.8	39.8	4.9	33.7	50.2	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.9	49.4	7.0	68.9	26.1	0.1	43.8	39.8	4.9	33.7	50.2	6.9
LOS	E	D	A	E	C	A	D	D	A	C	D	A
Approach Delay		46.3			32.3			35.7			40.4	
Approach LOS		D			C			D			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 18.2 (14%), Referenced to phase 2:EBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 40.2		Intersection LOS: D	
Intersection Capacity Utilization 87.6%		ICU Level of Service E	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 5: Trafalgar Road & Dundas Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	257	1728	238	189	1031	17	181	588	124	158	812	206
v/c Ratio	0.64	0.92	0.34	0.72	0.60	0.03	0.73	0.48	0.23	0.56	0.76	0.39
Control Delay	61.9	49.4	7.0	68.9	26.1	0.1	43.8	39.8	4.9	33.7	50.2	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.9	49.4	7.0	68.9	26.1	0.1	43.8	39.8	4.9	33.7	50.2	6.9
Queue Length 50th (m)	34.5	169.4	4.5	38.0	57.5	0.0	32.2	54.8	0.0	27.7	85.3	0.0
Queue Length 95th (m)	47.8	#207.8	24.0	#88.4	113.6	m0.0	49.0	63.9	11.2	40.1	96.6	18.4
Internal Link Dist (m)		530.9			391.5			307.2			385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Base Capacity (vph)	456	1869	707	264	1717	580	258	1520	628	284	1346	606
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.92	0.34	0.72	0.60	0.03	0.70	0.39	0.20	0.56	0.60	0.34

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	252	1693	233	185	1010	17	177	576	122	155	796	202
Future Volume (veh/h)	252	1693	233	185	1010	17	177	576	122	155	796	202
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1810	1827	1810	1792
Adj Flow Rate, veh/h	257	1728	238	189	1031	17	181	588	124	158	812	206
Adj No. of Lanes	2	3	1	1	3	1	1	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	321	2129	661	215	1867	510	257	1182	416	290	1082	377
Arrive On Green	0.09	0.42	0.42	0.08	0.40	0.40	0.09	0.27	0.27	0.07	0.25	0.25
Sat Flow, veh/h	3408	5085	1579	1691	4715	1288	1740	4343	1530	1740	4343	1514
Grp Volume(v), veh/h	257	1728	238	189	1031	17	181	588	124	158	812	206
Grp Sat Flow(s),veh/h/ln	1704	1695	1579	1691	1572	1288	1740	1448	1530	1740	1448	1514
Q Serve(g_s), s	9.6	38.9	13.4	8.6	22.0	1.1	9.8	14.8	8.3	8.9	22.5	15.4
Cycle Q Clear(g_c), s	9.6	38.9	13.4	8.6	22.0	1.1	9.8	14.8	8.3	8.9	22.5	15.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	321	2129	661	215	1867	510	257	1182	416	290	1082	377
V/C Ratio(X)	0.80	0.81	0.36	0.88	0.55	0.03	0.70	0.50	0.30	0.55	0.75	0.55
Avail Cap(c_a), veh/h	448	2129	661	215	1867	510	287	1520	535	290	1346	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.7	33.3	25.9	29.3	30.4	24.0	33.9	39.8	37.5	33.9	45.1	42.4
Incr Delay (d2), s/veh	7.6	3.5	1.5	31.9	0.8	0.1	7.2	0.4	0.5	2.4	2.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	18.8	6.1	5.9	9.7	0.4	5.2	6.0	3.6	4.4	9.2	6.6
LnGrp Delay(d),s/veh	65.3	36.8	27.4	61.3	31.1	24.1	41.1	40.2	38.0	36.3	47.1	43.9
LnGrp LOS	E	D	C	E	C	C	D	D	D	D	D	D
Approach Vol, veh/h		2223			1237			893			1176	
Approach Delay, s/veh		39.1			35.6			40.1			45.1	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	60.8	16.0	38.9	17.3	57.9	13.0	41.9
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	10.3	44.3	14.2	40.3	17.1	36.5	9.0	45.5
Max Q Clear Time (g_c+I1), s	10.6	40.9	11.8	24.5	11.6	24.0	10.9	16.8
Green Ext Time (p_c), s	0.0	3.3	0.2	7.6	0.7	9.3	0.0	6.8

Intersection Summary

HCM 2010 Ctrl Delay	39.7
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	1923	32	134	1093	77	58	36	153	130	78	100
Future Volume (vph)	37	1923	32	134	1093	77	58	36	153	130	78	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00		0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.916	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3141	0
Flt Permitted	0.231			0.059			0.633			0.732		
Satd. Flow (perm)	422	4940	1470	110	4673	1281	1149	1900	1577	1374	3141	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			70			82			138		78	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	39	2046	34	143	1163	82	62	38	163	138	83	106
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	2046	34	143	1163	82	62	38	163	138	189	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	2	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	26.8	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	70.2	70.2	70.2	13.0	83.2	83.2	46.8	46.8	46.8	46.8	46.8	
Total Split (%)	54.0%	54.0%	54.0%	10.0%	64.0%	64.0%	36.0%	36.0%	36.0%	36.0%	36.0%	
Maximum Green (s)	63.4	63.4	63.4	9.0	76.4	76.4	39.4	39.4	39.4	39.4	39.4	
Yellow Time (s)	4.2	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.6	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.8	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	24.0	24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	63.5	63.5	63.5	79.2	76.4	76.4	39.4	39.4	39.4	39.4	39.4	
Actuated g/C Ratio	0.49	0.49	0.49	0.61	0.59	0.59	0.30	0.30	0.30	0.30	0.30	
v/c Ratio	0.19	0.85	0.05	0.80	0.42	0.10	0.18	0.07	0.28	0.33	0.19	
Control Delay	18.7	24.1	1.6	55.4	15.3	2.7	35.2	32.8	9.3	37.9	19.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	18.7	24.1	1.6	55.4	15.3	2.7	35.2	32.8	9.3	37.9	19.9	
LOS	B	C	A	E	B	A	D	C	A	D	B	
Approach Delay		23.6			18.7			18.8			27.5	
Approach LOS		C			B			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 9.1 (7%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 22.0		Intersection LOS: C	
Intersection Capacity Utilization 107.0%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 6: Postridge Drive & Dundas Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	39	2046	34	143	1163	82	62	38	163	138	189
v/c Ratio	0.19	0.85	0.05	0.80	0.42	0.10	0.18	0.07	0.28	0.33	0.19
Control Delay	18.7	24.1	1.6	55.4	15.3	2.7	35.2	32.8	9.3	37.9	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.7	24.1	1.6	55.4	15.3	2.7	35.2	32.8	9.3	37.9	19.9
Queue Length 50th (m)	3.7	80.5	0.2	21.1	59.9	0.0	12.3	7.3	4.8	28.9	11.4
Queue Length 95th (m)	m4.7	98.0	m0.5	#56.6	70.7	6.9	24.5	16.1	22.1	48.2	21.0
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	206	2414	754	181	2746	786	348	575	574	416	1006
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.85	0.05	0.79	0.42	0.10	0.18	0.07	0.28	0.33	0.19

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	1923	32	134	1093	77	58	36	153	130	78	100
Future Volume (veh/h)	37	1923	32	134	1093	77	58	36	153	130	78	100
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1825	1900
Adj Flow Rate, veh/h	39	2046	34	143	1163	82	62	38	163	138	83	106
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	252	2487	750	181	2746	770	347	576	481	397	525	466
Arrive On Green	0.50	0.50	0.50	0.05	0.59	0.59	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	436	4940	1489	1774	4673	1310	1160	1900	1586	1181	1734	1539
Grp Volume(v), veh/h	39	2046	34	143	1163	82	62	38	163	138	83	106
Grp Sat Flow(s),veh/h/ln	436	1647	1489	1774	1558	1310	1160	1900	1586	1181	1734	1539
Q Serve(g_s), s	7.0	45.6	1.5	4.9	17.8	3.6	5.5	1.8	10.4	12.2	4.6	6.7
Cycle Q Clear(g_c), s	13.8	45.6	1.5	4.9	17.8	3.6	12.2	1.8	10.4	14.1	4.6	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	252	2487	750	181	2746	770	347	576	481	397	525	466
V/C Ratio(X)	0.15	0.82	0.05	0.79	0.42	0.11	0.18	0.07	0.34	0.35	0.16	0.23
Avail Cap(c_a), veh/h	252	2487	750	208	2746	770	347	576	481	397	525	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	27.4	16.4	28.3	14.7	11.8	38.5	32.2	35.2	37.2	33.2	33.9
Incr Delay (d2), s/veh	1.3	3.2	0.1	16.4	0.5	0.3	1.1	0.2	1.9	2.4	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	21.4	0.6	3.5	7.8	1.4	1.9	1.0	4.8	4.3	2.3	3.0
LnGrp Delay(d),s/veh	22.8	30.6	16.5	44.7	15.2	12.1	39.6	32.4	37.1	39.6	33.8	35.0
LnGrp LOS	C	C	B	D	B	B	D	C	D	D	C	D
Approach Vol, veh/h		2119			1388			263			327	
Approach Delay, s/veh		30.2			18.1			37.0			36.7	
Approach LOS		C			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	11.0	72.2		46.8		83.2		46.8
Change Period (Y+Rc), s	4.0	6.8		* 7.4		6.8		* 7.4
Max Green Setting (Gmax), s	9.0	63.4		* 39		76.4		* 39
Max Q Clear Time (g_c+I1), s	6.9	47.6		14.2		19.8		16.1
Green Ext Time (p_c), s	0.1	13.4		1.4		14.9		2.1

Intersection Summary

HCM 2010 Ctrl Delay		27.0	
HCM 2010 LOS		C	

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	98	90	95	30	61	207
Future Volume (vph)	98	90	95	30	61	207
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.968			0.850
Flt Protected		0.975			0.950	
Satd. Flow (prot)	0	1605	1734	0	1671	1482
Flt Permitted		0.975			0.950	
Satd. Flow (perm)	0	1605	1734	0	1671	1482
Link Speed (k/h)		50	50		50	
Link Distance (m)		120.2	260.2		319.6	
Travel Time (s)		8.7	18.7		23.0	
Confl. Peds. (#/hr)					4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	25%	5%	8%	0%	8%	9%
Adj. Flow (vph)	111	102	108	34	69	235
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	213	142	0	69	235
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 30.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	98	90	95	30	61	207
Future Vol, veh/h	98	90	95	30	61	207
Conflicting Peds, #/hr	0	0	0	0	4	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	25	5	8	0	8	9
Mvmt Flow	111	102	108	34	69	235

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	142	0	-	0	453	125
Stage 1	-	-	-	-	125	-
Stage 2	-	-	-	-	328	-
Critical Hdwy	4.35	-	-	-	6.48	6.29
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.425	-	-	-	3.572	3.381
Pot Cap-1 Maneuver	1311	-	-	-	554	907
Stage 1	-	-	-	-	886	-
Stage 2	-	-	-	-	717	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1311	-	-	-	504	907
Mov Cap-2 Maneuver	-	-	-	-	504	-
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	717	-

Approach	EB	WB	SB
HCM Control Delay, s	4.2	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1311	-	-	-	504	907
HCM Lane V/C Ratio	0.085	-	-	-	0.138	0.259
HCM Control Delay (s)	8	0	-	-	13.3	10.4
HCM Lane LOS	A	A	-	-	B	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.5	1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	51	0	29	0	1020	17	11	875	0
Future Volume (vph)	0	0	0	51	0	29	0	1020	17	11	875	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt					0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3539	0	1770	3008	0	1863	4471	1583	1770	4471	1863
Flt Permitted				0.757						0.207		
Satd. Flow (perm)	1863	3539	0	1410	3008	0	1863	4471	1583	386	4471	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					133				23			
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		94.5			68.2			537.5			902.9	
Travel Time (s)		6.8			4.9			24.2			40.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	55	0	32	0	1109	18	12	951	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	55	32	0	0	1109	18	12	951	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5		23.5	23.5		24.6	24.6	24.6	24.6	24.6	24.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	0
Act Effct Green (s)				10.0	10.0			101.4	101.4	101.4	101.4	
Actuated g/C Ratio				0.08	0.08			0.84	0.84	0.84	0.84	
v/c Ratio				0.47	0.09			0.29	0.01	0.04	0.25	
Control Delay				64.3	0.4			2.6	0.8	1.4	1.2	
Queue Delay				0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay				64.3	0.4			2.6	0.8	1.4	1.2	
LOS				E	A			A	A	A	A	
Approach Delay					40.8			2.6			1.2	
Approach LOS					D			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay: 3.5		Intersection LOS: A	
Intersection Capacity Utilization 34.0%		ICU Level of Service A	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 8: Trafalgar Road & New Road A

Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	55	32	1109	18	12	951
v/c Ratio	0.47	0.09	0.29	0.01	0.04	0.25
Control Delay	64.3	0.4	2.6	0.8	1.4	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.3	0.4	2.6	0.8	1.4	1.2
Queue Length 50th (m)	13.2	0.0	21.0	0.0	0.3	10.5
Queue Length 95th (m)	26.4	0.0	29.5	1.0	m0.8	10.8
Internal Link Dist (m)		44.2	513.5			878.9
Turn Bay Length (m)	25.0			45.0	65.0	
Base Capacity (vph)	287	719	3778	1341	326	3778
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.04	0.29	0.01	0.04	0.25

Intersection Summary
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	51	0	29	0	1020	17	11	875	0
Future Volume (veh/h)	0	0	0	51	0	29	0	1020	17	11	875	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	0	0	0	55	0	32	0	1109	18	12	951	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	167	0	144	83	75	60	3809	1349	484	3809	1349
Arrive On Green	0.00	0.00	0.00	0.05	0.00	0.05	0.00	1.00	1.00	1.00	1.00	0.00
Sat Flow, veh/h	1372	3632	0	1774	1770	1583	588	4471	1583	498	4471	1583
Grp Volume(v), veh/h	0	0	0	55	0	32	0	1109	18	12	951	0
Grp Sat Flow(s),veh/h/ln	1372	1770	0	1774	1770	1583	588	1490	1583	498	1490	1583
Q Serve(g_s), s	0.0	0.0	0.0	3.7	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.7	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	167	0	144	83	75	60	3809	1349	484	3809	1349
V/C Ratio(X)	0.00	0.00	0.00	0.38	0.00	0.43	0.00	0.29	0.01	0.02	0.25	0.00
Avail Cap(c_a), veh/h	275	723	0	422	361	323	60	3809	1349	484	3809	1349
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	56.2	0.0	55.6	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.7	0.0	3.9	0.0	0.2	0.0	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.9	0.0	1.1	0.0	0.1	0.0	0.0	0.1	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	57.9	0.0	59.5	0.0	0.2	0.0	0.1	0.2	0.0
LnGrp LOS				E		E		A	A	A	A	
Approach Vol, veh/h		0			87			1127			963	
Approach Delay, s/veh		0.0			58.5			0.2			0.2	
Approach LOS					E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		108.9		11.1		108.9		11.1
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		2.0		0.0		2.0		5.7
Green Ext Time (p_c), s		13.3		0.0		10.7		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	2.5
HCM 2010 LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	28	0	0	80	0	0	0	0	0	0	0
Future Volume (vph)	0	28	0	0	80	0	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt												
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1863	0	0	3539	0	0	3539	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1863	0	0	3539	0	0	3539	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		56.1			205.9			80.1			70.6	
Travel Time (s)		4.0			14.8			5.8			5.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	30	0	0	87	0	0	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	30	0	0	87	0	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
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)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 7.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	28	0	0	80	0	0	0	0	0	0	0
Future Vol, veh/h	0	28	0	0	80	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	30	0	0	87	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	87	0	0	30	0	0	117	117	30	117	117	87
Stage 1	-	-	-	-	-	-	30	30	-	87	87	-
Stage 2	-	-	-	-	-	-	87	87	-	30	30	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1509	-	-	1583	-	-	859	773	1044	859	773	971
Stage 1	-	-	-	-	-	-	987	870	-	921	823	-
Stage 2	-	-	-	-	-	-	921	823	-	987	870	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1509	-	-	1583	-	-	859	773	1044	859	773	971
Mov Cap-2 Maneuver	-	-	-	-	-	-	859	773	-	859	773	-
Stage 1	-	-	-	-	-	-	987	870	-	921	823	-
Stage 2	-	-	-	-	-	-	921	823	-	987	870	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	-	1509	-	-	1583	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	0	-	-	0	-	-	0	0
HCM Lane LOS	A	A	A	-	-	A	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	-	-	0	-	-	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	142	50	0	0	0
Future Volume (vph)	0	142	50	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.865					
Flt Protected				0.950		
Satd. Flow (prot)	1611	0	0	3362	3539	0
Flt Permitted				0.950		
Satd. Flow (perm)	1611	0	0	3362	3539	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	51.6			89.3	74.2	
Travel Time (s)	3.7			6.4	5.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	154	54	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	154	0	0	54	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	18.8%	ICU Level of Service	A
Analysis Period (min)	15		

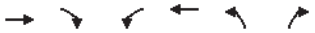
Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	142	50	0	0	0
Future Vol, veh/h	0	142	50	0	0	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	154	54	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	109	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	108	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	877	1083	1620	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	904	-	-	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	848	1083	1620	-	-	-
Mov Cap-2 Maneuver	848	-	-	-	-	-
Stage 1	988	-	-	-	-	-
Stage 2	904	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	7.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1620	-	1083	-	-
HCM Lane V/C Ratio	0.034	-	0.143	-	-
HCM Control Delay (s)	7.3	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	28	0	0	80	0
Future Volume (vph)	0	28	0	0	80	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected					0.950	
Satd. Flow (prot)	1611	0	0	1863	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	1611	0	0	1863	1770	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	205.9			49.4	119.6	
Travel Time (s)	14.8			3.6	8.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	30	0	0	87	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	30	0	0	0	87	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 14.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	6.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	28	0	0	80	0
Future Vol, veh/h	0	28	0	0	80	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	30	0	0	87	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	30	0	16	15
Stage 1	-	-	-	-	15	-
Stage 2	-	-	-	-	1	-
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	-	-	1583	-	1002	1065
Stage 1	-	-	-	-	1008	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1583	-	1002	1065
Mov Cap-2 Maneuver	-	-	-	-	1002	-
Stage 1	-	-	-	-	1008	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1002	-	-	1583	-
HCM Lane V/C Ratio	0.087	-	-	-	-
HCM Control Delay (s)	8.9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

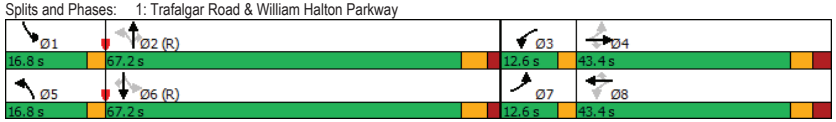
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	158	116	118	1341	16	104	1392	36	134	990	500
Future Volume (vph)	131	158	116	118	1341	16	104	1392	36	134	990	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4262	1553	1687	4515	1429
Flt Permitted	0.109			0.649			0.179			0.068		
Satd. Flow (perm)	194	3610	1583	1233	3374	1553	340	4262	1553	121	4515	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			120			77			78			295
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	135	163	120	122	1382	16	107	1435	37	138	1021	515
Shared Lane Traffic (%)												
Lane Group Flow (vph)	135	163	120	122	1382	16	107	1435	37	138	1021	515
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	12.6	43.4	43.4	12.6	43.4	43.4	16.8	67.2	67.2	16.8	67.2	67.2
Total Split (%)	9.0%	31.0%	31.0%	9.0%	31.0%	31.0%	12.0%	48.0%	48.0%	12.0%	48.0%	48.0%
Maximum Green (s)	9.6	36.4	36.4	9.6	36.4	36.4	13.8	60.3	60.3	13.8	60.3	60.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	50.3	36.7	36.7	49.7	36.4	36.4	75.8	62.7	62.7	80.1	64.8	64.8
Actuated g/C Ratio	0.36	0.26	0.26	0.36	0.26	0.26	0.54	0.45	0.45	0.57	0.46	0.46
v/c Ratio	0.78	0.17	0.24	0.26	1.58	0.03	0.38	0.75	0.05	0.70	0.49	0.63
Control Delay	61.1	40.6	7.8	30.8	299.4	0.1	17.5	35.7	0.1	43.9	27.3	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.1	40.6	7.8	30.8	299.4	0.1	17.5	35.7	0.1	43.9	27.3	15.3
LOS	E	D	A	C	F	A	B	D	A	D	C	B
Approach Delay		37.8			274.7			33.6			25.0	
Approach LOS		D			F			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.58
Intersection Signal Delay: 101.8 Intersection LOS: F
Intersection Capacity Utilization 96.9% ICU Level of Service F
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 1: Trafalgar Road & William Halton Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	135	163	120	122	1382	16	107	1435	37	138	1021	515
v/c Ratio	0.78	0.17	0.24	0.26	1.58	0.03	0.38	0.75	0.05	0.70	0.49	0.63
Control Delay	61.1	40.6	7.8	30.8	299.4	0.1	17.5	35.7	0.1	43.9	27.3	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.1	40.6	7.8	30.8	299.4	0.1	17.5	35.7	0.1	43.9	27.3	15.3
Queue Length 50th (m)	26.4	19.4	0.0	23.6	~300.2	0.0	13.4	144.5	0.0	20.6	84.4	46.7
Queue Length 95th (m)	#57.4	29.6	15.9	38.9	#345.1	0.0	22.7	170.6	0.2	44.3	103.4	89.8
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	172	947	504	479	877	460	337	1907	738	224	2091	820
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.17	0.24	0.25	1.58	0.03	0.32	0.75	0.05	0.62	0.49	0.63

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	158	116	118	1341	16	104	1392	36	134	990	500
Future Volume (veh/h)	131	158	116	118	1341	16	104	1392	36	134	990	500
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	135	163	120	122	1382	16	107	1435	37	138	1021	515
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	167	959	421	422	877	404	253	2011	733	218	2167	686
Arrive On Green	0.07	0.27	0.27	0.06	0.26	0.26	0.05	0.47	0.47	0.06	0.48	0.48
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4262	1553	1691	4515	1429
Grp Volume(v), veh/h	135	163	120	122	1382	16	107	1435	37	138	1021	515
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1421	1553	1691	1505	1429
Q Serve(g_s), s	8.2	4.9	8.4	6.9	36.4	1.1	4.2	37.5	1.8	5.8	21.3	41.0
Cycle Q Clear(g_c), s	8.2	4.9	8.4	6.9	36.4	1.1	4.2	37.5	1.8	5.8	21.3	41.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	959	421	422	877	404	253	2011	733	218	2167	686
V/C Ratio(X)	0.81	0.17	0.29	0.29	1.58	0.04	0.42	0.71	0.05	0.63	0.47	0.75
Avail Cap(c_a), veh/h	167	959	421	433	877	404	342	2011	733	288	2167	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	39.5	40.8	34.5	51.8	38.7	19.2	29.4	20.0	25.3	24.5	29.6
Incr Delay (d2), s/veh	24.4	0.2	0.8	0.4	264.5	0.1	1.1	2.2	0.1	3.0	0.7	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	2.4	3.8	3.4	49.2	0.5	2.2	15.2	0.8	2.9	8.9	17.5
LnGrp Delay(d),s/veh	63.4	39.7	41.6	34.9	316.3	38.8	20.3	31.6	20.1	28.3	25.2	37.0
LnGrp LOS	E	D	D	C	F	D	C	C	C	C	C	D
Approach Vol, veh/h		418			1520			1579			1674	
Approach Delay, s/veh		47.9			290.8			30.6			29.1	
Approach LOS		D			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	73.0	11.8	44.2	9.9	74.1	12.6	43.4
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	13.8	* 60	9.6	36.4	13.8	* 60	9.6	36.4
Max Q Clear Time (g_c+I1), s	7.8	39.5	8.9	10.4	6.2	43.0	10.2	38.4
Green Ext Time (p_c), s	0.2	16.7	0.0	3.2	0.2	14.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	107.7
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

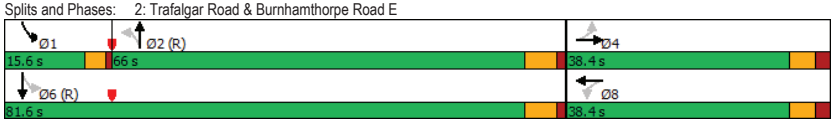
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	180	58	72	201	17	116	1158	73	17	968	155
Future Volume (vph)	86	180	58	72	201	17	116	1158	73	17	968	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.80	*0.80	1.00	*0.80	*0.80
Frt		0.963			0.988			0.991			0.979	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1777	0	1805	1811	0	1770	4203	0	1805	4160	0
Flt Permitted	0.361			0.311			0.178			0.124		
Satd. Flow (perm)	666	1777	0	591	1811	0	332	4203	0	236	4160	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			4			10			40	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	95	198	64	79	221	19	127	1273	80	19	1064	170
Shared Lane Traffic (%)												
Lane Group Flow (vph)	95	262	0	79	240	0	127	1353	0	19	1234	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		7.0	20.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		26.0	26.0		11.0	26.0	
Total Split (s)	38.4	38.4		38.4	38.4		66.0	66.0		15.6	81.6	
Total Split (%)	32.0%	32.0%		32.0%	32.0%		55.0%	55.0%		13.0%	68.0%	
Maximum Green (s)	32.4	32.4		32.4	32.4		60.0	60.0		11.6	75.6	
Yellow Time (s)	3.7	3.7		3.7	3.7		4.6	4.6		3.0	4.6	
All-Red Time (s)	2.3	2.3		2.3	2.3		1.4	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	22.2	22.2		22.2	22.2		81.4	81.4		87.8	85.8	
Actuated g/C Ratio	0.18	0.18		0.18	0.18		0.68	0.68		0.73	0.72	
v/c Ratio	0.77	0.77		0.72	0.71		0.56	0.47		0.07	0.41	
Control Delay	83.0	59.1		79.6	56.2		26.5	11.0		6.2	7.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	83.0	59.1		79.6	56.2		26.5	11.0		6.2	7.7	
LOS	F	E		E	E		C	B		A	A	
Approach Delay		65.4			62.0			12.4			7.7	
Approach LOS		E			E			B			A	

Intersection Summary		
Area Type:	Other	
Cycle Length: 120		
Actuated Cycle Length: 120		
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green		
Natural Cycle: 60		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.77		
Intersection Signal Delay: 20.8	Intersection LOS: C	
Intersection Capacity Utilization 80.2%	ICU Level of Service D	
Analysis Period (min) 15		

* User Entered Value

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	95	262	79	240	127	1353	19	1234
v/c Ratio	0.77	0.77	0.72	0.71	0.56	0.47	0.07	0.41
Control Delay	83.0	59.1	79.6	56.2	26.5	11.0	6.2	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.0	59.1	79.6	56.2	26.5	11.0	6.2	7.7
Queue Length 50th (m)	22.6	59.4	18.6	55.4	16.2	68.6	1.1	44.0
Queue Length 95th (m)	#41.2	83.4	35.4	78.0	#56.6	87.1	4.0	67.1
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	179	489	159	491	225	2854	324	2986
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.54	0.50	0.49	0.56	0.47	0.06	0.41

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	180	58	72	201	17	116	1158	73	17	968	155
Future Volume (veh/h)	86	180	58	72	201	17	116	1158	73	17	968	155
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1900	1833	1900	1863	1767	1900	1900	1771	1900
Adj Flow Rate, veh/h	95	198	64	79	221	19	127	1273	80	19	1064	170
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	182	304	98	165	378	32	307	2619	165	360	2608	416
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	1.00	1.00	1.00	0.03	0.67	0.67
Sat Flow, veh/h	1124	1337	432	1135	1664	143	450	4278	269	1810	3876	619
Grp Volume(v), veh/h	95	0	262	79	0	240	127	841	512	19	777	457
Grp Sat Flow(s),veh/h/ln	1124	0	1769	1135	0	1807	450	1414	1720	1810	1416	1661
Q Serve(g_s), s	9.9	0.0	16.1	8.1	0.0	14.2	6.5	0.0	0.0	0.4	14.8	14.9
Cycle Q Clear(g_c), s	24.1	0.0	16.1	24.3	0.0	14.2	14.1	0.0	0.0	0.4	14.8	14.9
Prop In Lane	1.00		0.24	1.00		0.08	1.00		0.16	1.00		0.37
Lane Grp Cap(c), veh/h	182	0	402	165	0	411	307	1731	1053	360	1906	1118
V/C Ratio(X)	0.52	0.00	0.65	0.48	0.00	0.58	0.41	0.49	0.49	0.05	0.41	0.41
Avail Cap(c_a), veh/h	231	0	478	214	0	488	307	1731	1053	485	1906	1118
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.1	0.0	42.1	53.1	0.0	41.3	0.7	0.0	0.0	7.2	8.9	8.9
Incr Delay (d2), s/veh	2.3	0.0	2.4	2.1	0.0	1.3	4.1	1.0	1.6	0.1	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	8.1	2.6	0.0	7.2	1.1	0.2	0.5	0.2	5.9	7.1
LnGrp Delay(d),s/veh	54.3	0.0	44.5	55.2	0.0	42.6	4.8	1.0	1.6	7.2	9.5	10.0
LnGrp LOS	D		D	E		D	A	A	A	A	A	A
Approach Vol, veh/h		357			319			1480			1253	
Approach Delay, s/veh		47.1			45.8			1.5			9.6	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	7.3	79.5		33.3		86.7		33.3
Change Period (Y+Rc), s	4.0	* 6		6.0		* 6		6.0
Max Green Setting (Gmax), s	11.6	* 60		32.4		* 76		32.4
Max Q Clear Time (g_c+I1), s	2.4	16.1		26.1		16.9		26.3
Green Ext Time (p_c), s	0.0	31.0		1.2		28.4		1.0

Intersection Summary

HCM 2010 Ctrl Delay	13.4
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

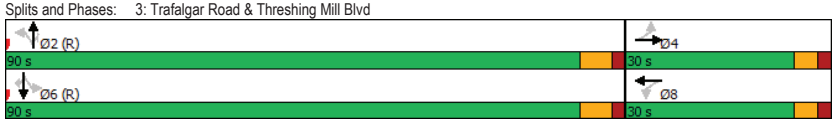
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	0	51	90	30	246	63	1114	133	136	932	34
Future Volume (vph)	21	0	51	90	30	246	63	1114	133	136	932	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.867				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3008	0	1410	3016	0	1770	4262	1404	1671	4262	1583
Flt Permitted	0.429			0.719			0.242			0.188		
Satd. Flow (perm)	799	3008	0	1067	3016	0	451	4262	1404	331	4262	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		174			120				139			37
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		175.7			120.2			286.4			537.5	
Travel Time (s)		12.7			8.7			12.9			24.2	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Heavy Vehicles (%)	2%	2%	2%	28%	2%	4%	2%	7%	15%	8%	7%	2%
Adj. Flow (vph)	23	0	55	94	33	256	68	1160	139	142	971	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	55	0	94	289	0	68	1160	139	142	971	37
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		41.6	41.6	41.6	41.6	41.6	41.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0					0	0	0	0	0	0
Act Effct Green (s)	16.1	16.1		16.1	16.1		91.8	91.8	91.8	91.8	91.8	91.8
Actuated g/C Ratio	0.13	0.13		0.13	0.13		0.76	0.76	0.76	0.76	0.76	0.76
v/c Ratio	0.21	0.10		0.66	0.57		0.20	0.36	0.13	0.56	0.30	0.03
Control Delay	48.6	0.4		69.5	31.6		3.6	2.4	0.3	17.6	4.7	2.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.6	0.4		69.5	31.6		3.6	2.4	0.3	17.6	4.7	2.7
LOS	D	A		E	C		A	A	A	B	A	A
Approach Delay		14.6			40.9			2.3			6.2	
Approach LOS		B			D			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 20.4 (17%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 9.1		Intersection LOS: A	
Intersection Capacity Utilization 71.2%		ICU Level of Service C	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 3: Trafalgar Road & Threshing Mill Blvd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	23	55	94	289	68	1160	139	142	971	37
v/c Ratio	0.21	0.10	0.66	0.57	0.20	0.36	0.13	0.56	0.30	0.03
Control Delay	48.6	0.4	69.5	31.6	3.6	2.4	0.3	17.6	4.7	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.6	0.4	69.5	31.6	3.6	2.4	0.3	17.6	4.7	2.7
Queue Length 50th (m)	5.2	0.0	22.5	20.5	1.7	12.2	0.0	11.7	26.2	0.1
Queue Length 95th (m)	12.8	0.0	38.8	33.0	4.1	17.6	0.1	58.5	36.6	1.7
Internal Link Dist (m)		151.7		96.2		262.4			513.5	
Turn Bay Length (m)	25.0		25.0		75.0		45.0	65.0		45.0
Base Capacity (vph)	163	752	217	711	344	3259	1106	253	3259	1219
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.07	0.43	0.41	0.20	0.36	0.13	0.56	0.30	0.03

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	0	51	90	30	246	63	1114	133	136	932	34
Future Volume (veh/h)	21	0	51	90	30	246	63	1114	133	136	932	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1484	1831	1900	1863	1776	1652	1759	1776	1863
Adj Flow Rate, veh/h	23	0	55	94	33	256	68	1160	139	142	971	37
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	2	2	2	28	2	4	2	7	15	8	7	2
Cap, veh/h	101	347	310	239	341	305	356	2997	987	341	2997	1113
Arrive On Green	0.20	0.00	0.20	0.20	0.20	0.20	1.00	1.00	1.00	0.23	0.23	0.23
Sat Flow, veh/h	1086	1770	1583	1070	1739	1556	577	4262	1404	399	4262	1583
Grp Volume(v), veh/h	23	0	55	94	33	256	68	1160	139	142	971	37
Grp Sat Flow(s),veh/h/ln	1086	1770	1583	1070	1739	1556	577	1421	1404	399	1421	1583
Q Serve(g_s), s	2.5	0.0	3.5	9.6	1.9	19.0	4.6	0.0	0.0	37.2	22.7	2.2
Cycle Q Clear(g_c), s	21.5	0.0	3.5	13.1	1.9	19.0	27.3	0.0	0.0	37.2	22.7	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	101	347	310	239	341	305	356	2997	987	341	2997	1113
V/C Ratio(X)	0.23	0.00	0.18	0.39	0.10	0.84	0.19	0.39	0.14	0.42	0.32	0.03
Avail Cap(c_a), veh/h	110	361	323	248	355	318	356	2997	987	341	2997	1113
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.8	0.0	40.2	45.6	39.5	46.4	3.7	0.0	0.0	27.9	22.4	14.5
Incr Delay (d2), s/veh	1.1	0.0	0.3	1.1	0.1	17.3	1.1	0.4	0.3	3.7	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.5	2.9	0.9	9.6	0.8	0.1	0.1	4.5	9.0	1.0
LnGrp Delay(d),s/veh	57.9	0.0	40.4	46.7	39.7	63.7	4.8	0.4	0.3	31.7	22.7	14.6
LnGrp LOS	E		D	D	D	E	A	A	A	C	C	B
Approach Vol, veh/h		78			383			1367			1150	
Approach Delay, s/veh		45.6			57.5			0.6			23.5	
Approach LOS		D			E			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		91.0		29.0		91.0		29.0
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		29.3		23.5		39.2		21.0
Green Ext Time (p_c), s		30.8		0.0		25.1		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	17.9
HCM 2010 LOS	B

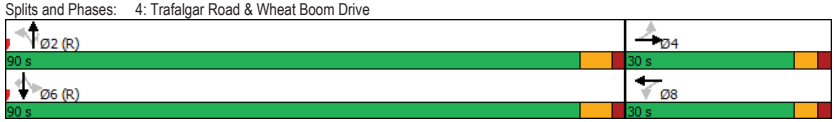
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	14	113	0	148	0	1156	133	107	1003	0
Future Volume (vph)	0	0	14	113	0	148	0	1156	133	107	1003	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3008	0	1327	2379	0	1863	4343	1292	1556	4262	1863
Flt Permitted				0.747						0.166		
Satd. Flow (perm)	1863	3008	0	1044	2379	0	1863	4343	1292	272	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		141			102				143			
Link Speed (k/h)		50			50			60			80	
Link Distance (m)		170.2			342.3			409.5			286.4	
Travel Time (s)		12.3			24.6			24.6			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Heavy Vehicles (%)	2%	2%	2%	36%	2%	29%	2%	5%	25%	16%	7%	2%
Adj. Flow (vph)	0	0	15	122	0	159	0	1243	143	115	1078	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	122	159	0	0	1243	143	115	1078	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0			
Pedestrian Calls (#/hr)	0	0					0	0	0			
Act Effct Green (s)		18.5		18.5	18.5			89.4	89.4	89.4	89.4	
Actuated g/C Ratio		0.15		0.15	0.15			0.74	0.74	0.74	0.74	
v/c Ratio		0.03		0.76	0.35			0.38	0.14	0.57	0.34	
Control Delay		0.1		75.9	18.7			6.3	1.3	17.3	3.0	
Queue Delay		0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay		0.1		75.9	18.7			6.3	1.3	17.3	3.0	
LOS		A		E	B			A	A	B	A	
Approach Delay		0.1			43.5			5.8			4.4	
Approach LOS		A			D			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 13.2 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 8.9		Intersection LOS: A	
Intersection Capacity Utilization 67.5%		ICU Level of Service C	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	15	122	159	1243	143	115	1078
v/c Ratio	0.03	0.76	0.35	0.38	0.14	0.57	0.34
Control Delay	0.1	75.9	18.7	6.3	1.3	17.3	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.1	75.9	18.7	6.3	1.3	17.3	3.0
Queue Length 50th (m)	0.0	29.1	6.4	40.7	0.0	4.6	14.1
Queue Length 95th (m)	0.0	49.2	16.0	58.8	6.0	#33.7	19.0
Internal Link Dist (m)	146.2		318.3	385.5			262.4
Turn Bay Length (m)		25.0			45.0	65.0	
Base Capacity (vph)	726	213	566	3235	998	202	3175
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.57	0.28	0.38	0.14	0.57	0.34

Intersection Summary
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	14	113	0	148	0	1156	133	107	1003	0
Future Volume (veh/h)	0	0	14	113	0	148	0	1156	133	107	1003	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1397	1473	1900	1863	1810	1520	1638	1776	1863
Adj Flow Rate, veh/h	0	0	15	122	0	159	0	1243	143	115	1078	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Percent Heavy Veh, %	2	2	2	36	2	29	2	5	25	16	7	2
Cap, veh/h	60	265	237	208	209	187	60	3255	968	282	3194	1187
Arrive On Green	0.00	0.00	0.15	0.15	0.00	0.15	0.00	0.75	0.75	1.00	1.00	0.00
Sat Flow, veh/h	1222	1770	1583	1045	1399	1252	521	4343	1292	342	4262	1583
Grp Volume(v), veh/h	0	0	15	122	0	159	0	1243	143	115	1078	0
Grp Sat Flow(s),veh/h/ln	1222	1770	1583	1045	1399	1252	521	1448	1292	342	1421	1583
Q Serve(g_s), s	0.0	0.0	1.0	13.6	0.0	14.8	0.0	12.1	3.7	9.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.0	14.6	0.0	14.8	0.0	12.1	3.7	21.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	265	237	208	209	187	60	3255	968	282	3194	1187
V/C Ratio(X)	0.00	0.00	0.06	0.59	0.00	0.85	0.00	0.38	0.15	0.41	0.34	0.00
Avail Cap(c_a), veh/h	127	361	323	265	286	256	60	3255	968	282	3194	1187
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.95	0.95	0.00
Uniform Delay (d), s/veh	0.0	0.0	43.8	50.1	0.0	49.7	0.0	5.3	4.2	1.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	2.6	0.0	17.5	0.0	0.3	0.3	4.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.4	4.1	0.0	6.0	0.0	4.8	1.4	1.2	0.1	0.0
LnGrp Delay(d),s/veh	0.0	0.0	43.9	52.7	0.0	67.2	0.0	5.6	4.6	5.6	0.3	0.0
LnGrp LOS			D	D		E		A	A	A	A	
Approach Vol, veh/h		15			281			1386			1193	
Approach Delay, s/veh		43.9			60.9			5.5			0.8	
Approach LOS		D			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		96.5		23.5		96.5		23.5
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		14.1		3.0		23.9		16.8
Green Ext Time (p_c), s		17.5		0.0		18.0		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	9.2
HCM 2010 LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	337	1490	235	225	1958	33	292	946	242	155	651	299
Future Volume (vph)	337	1490	235	225	1958	33	292	946	242	155	651	299
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98	1.00			1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	4343	1538	1736	4343	1524
Flt Permitted	0.950			0.091			0.248			0.110		
Satd. Flow (perm)	3400	5085	1557	162	4715	1292	452	4343	1538	201	4343	1497
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			234			105			225			274
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	344	1520	240	230	1998	34	298	965	247	158	664	305
Shared Lane Traffic (%)												
Lane Group Flow (vph)	344	1520	240	230	1998	34	298	965	247	158	664	305
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

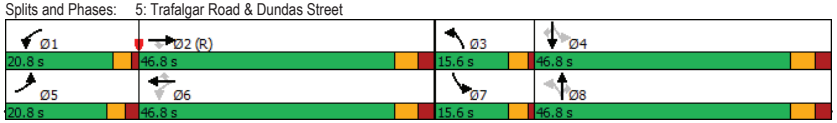
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5	16.5	11.0	16.5	16.5
Total Split (s)	20.8	46.8	46.8	20.8	46.8	46.8	15.6	46.8	46.8	15.6	46.8	46.8
Total Split (%)	16.0%	36.0%	36.0%	16.0%	36.0%	36.0%	12.0%	36.0%	36.0%	12.0%	36.0%	36.0%
Maximum Green (s)	15.8	40.4	40.4	16.8	40.4	40.4	11.6	40.3	40.3	11.6	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	16.5	44.7	44.7	62.8	43.8	43.8	50.6	36.5	36.5	50.0	36.2	36.2
Actuated g/C Ratio	0.13	0.34	0.34	0.48	0.34	0.34	0.39	0.28	0.28	0.38	0.28	0.28
v/c Ratio	0.80	0.87	0.35	0.85	1.26	0.07	1.03	0.79	0.42	0.75	0.55	0.50
Control Delay	69.7	47.1	6.0	69.2	150.5	0.8	91.0	48.3	8.0	48.7	41.3	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.7	47.1	6.0	69.2	150.5	0.8	91.0	48.3	8.0	48.7	41.3	8.7
LOS	E	D	A	E	F	A	F	D	A	D	D	A
Approach Delay		46.1			140.0			50.1			33.5	
Approach LOS		D			F			D			C	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 40.3 (31%), Referenced to phase 2:EBT, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.26
Intersection Signal Delay: 75.3 — Intersection LOS: E
Intersection Capacity Utilization 96.9% — ICU Level of Service F
Analysis Period (min) 15

* User Entered Value

Splits and Phases: 5: Trafalgar Road & Dundas Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	344	1520	240	230	1998	34	298	965	247	158	664	305
v/c Ratio	0.80	0.87	0.35	0.85	1.26	0.07	1.03	0.79	0.42	0.75	0.55	0.50
Control Delay	69.7	47.1	6.0	69.2	150.5	0.8	91.0	48.3	8.0	48.7	41.3	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.7	47.1	6.0	69.2	150.5	0.8	91.0	48.3	8.0	48.7	41.3	8.7
Queue Length 50th (m)	46.1	147.6	1.1	52.1	~255.3	0.0	~56.2	99.5	4.3	26.5	62.8	6.1
Queue Length 95th (m)	#71.7	#180.7	20.5	m59.2	#286.7	m0.0	#96.7	115.7	25.0	#53.6	75.7	29.9
Internal Link Dist (m)		530.9			391.5			307.2			385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Base Capacity (vph)	437	1749	689	283	1589	504	290	1346	632	214	1346	653
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.87	0.35	0.81	1.26	0.07	1.03	0.72	0.39	0.74	0.49	0.47

Intersection Summary

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	337	1490	235	225	1958	33	292	946	242	155	651	299
Future Volume (veh/h)	337	1490	235	225	1958	33	292	946	242	155	651	299
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1810	1827	1810	1792
Adj Flow Rate, veh/h	344	1520	240	230	1998	34	298	965	247	158	664	305
Adj No. of Lanes	2	3	1	1	3	1	1	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	396	1926	598	259	1689	461	288	1201	423	227	1164	406
Arrive On Green	0.12	0.38	0.38	0.10	0.36	0.36	0.09	0.28	0.28	0.08	0.27	0.27
Sat Flow, veh/h	3408	5085	1578	1691	4715	1288	1740	4343	1530	1740	4343	1515
Grp Volume(v), veh/h	344	1520	240	230	1998	34	298	965	247	158	664	305
Grp Sat Flow(s),veh/h/ln	1704	1695	1578	1691	1572	1288	1740	1448	1530	1740	1448	1515
Q Serve(g_s), s	12.9	34.4	14.5	11.0	46.6	2.3	11.6	26.9	18.1	8.5	17.2	24.0
Cycle Q Clear(g_c), s	12.9	34.4	14.5	11.0	46.6	2.3	11.6	26.9	18.1	8.5	17.2	24.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	396	1926	598	259	1689	461	288	1201	423	227	1164	406
V/C Ratio(X)	0.87	0.79	0.40	0.89	1.18	0.07	1.04	0.80	0.58	0.70	0.57	0.75
Avail Cap(c_a), veh/h	414	1926	598	303	1689	461	288	1346	474	242	1346	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	35.8	29.6	29.2	41.7	27.5	40.7	43.7	40.6	34.1	41.1	43.6
Incr Delay (d2), s/veh	17.5	3.4	2.0	23.9	88.8	0.2	62.7	3.4	1.7	8.3	0.5	6.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	16.6	6.7	6.8	34.1	0.8	12.5	11.1	7.9	4.6	6.9	10.7
LnGrp Delay(d),s/veh	74.0	39.2	31.6	53.1	130.5	27.7	103.4	47.2	42.3	42.4	41.6	49.7
LnGrp LOS	E	D	C	D	F	C	F	D	D	D	D	D
Approach Vol, veh/h		2104			2262			1510			1127	
Approach Delay, s/veh		44.0			121.1			57.5			43.9	
Approach LOS		D			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.4	55.6	15.6	41.4	20.1	53.0	14.5	42.5
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	16.8	40.4	11.6	40.3	15.8	40.4	11.6	40.3
Max Q Clear Time (g_c+I1), s	13.0	36.4	13.6	26.0	14.9	48.6	10.5	28.9
Green Ext Time (p_c), s	0.4	3.8	0.0	6.6	0.2	0.0	0.1	7.1

Intersection Summary	
HCM 2010 Ctrl Delay	71.8
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	1515	63	271	2099	148	117	83	142	110	57	47
Future Volume (vph)	68	1515	63	271	2099	148	117	83	142	110	57	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor			0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.932	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3209	0
Flt Permitted	0.076			0.070			0.682			0.700		
Satd. Flow (perm)	139	4940	1470	130	4673	1281	1237	1900	1577	1315	3209	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			104			123			151		50	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	72	1612	67	288	2233	157	124	88	151	117	61	50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	1612	67	288	2233	157	124	88	151	117	111	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	11.0	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	11.7	57.2	57.2	26.0	71.5	71.5	46.8	46.8	46.8	46.8	46.8	
Total Split (%)	9.0%	44.0%	44.0%	20.0%	55.0%	55.0%	36.0%	36.0%	36.0%	36.0%	36.0%	
Maximum Green (s)	7.7	50.4	50.4	22.0	64.7	64.7	39.4	39.4	39.4	39.4	39.4	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)		24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	63.0	52.8	52.8	79.2	67.2	67.2	39.4	39.4	39.4	39.4	39.4	
Actuated g/C Ratio	0.48	0.41	0.41	0.61	0.52	0.52	0.30	0.30	0.30	0.30	0.30	
v/c Ratio	0.46	0.80	0.10	0.88	0.92	0.22	0.33	0.15	0.26	0.29	0.11	
Control Delay	34.1	28.7	4.5	62.7	37.5	5.7	38.2	34.1	6.2	37.2	18.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	34.1	28.7	4.5	62.7	37.5	5.7	38.2	34.1	6.2	37.2	18.7	
LOS	C	C	A	E	D	A	D	C	A	D	B	
Approach Delay		28.0			38.3			23.9			28.2	
Approach LOS		C			D			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 36.4 (28%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 33.2 Intersection LOS: C
Intersection Capacity Utilization 94.1% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 6: Postridge Drive & Dundas Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	72	1612	67	288	2233	157	124	88	151	117	111
v/c Ratio	0.46	0.80	0.10	0.88	0.92	0.22	0.33	0.15	0.26	0.29	0.11
Control Delay	34.1	28.7	4.5	62.7	37.5	5.7	38.2	34.1	6.2	37.2	18.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.1	28.7	4.5	62.7	37.5	5.7	38.2	34.1	6.2	37.2	18.7
Queue Length 50th (m)	10.7	77.9	1.4	58.2	206.2	4.6	25.9	17.4	0.0	24.2	6.1
Queue Length 95th (m)	m15.8	91.0	m2.6	#103.5	#249.3	16.8	44.3	31.1	15.8	41.8	13.6
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	162	2005	658	356	2415	721	374	575	583	398	1007
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.80	0.10	0.81	0.92	0.22	0.33	0.15	0.26	0.29	0.11

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	1515	63	271	2099	148	117	83	142	110	57	47
Future Volume (veh/h)	68	1515	63	271	2099	148	117	83	142	110	57	47
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1829	1900
Adj Flow Rate, veh/h	72	1612	67	288	2233	157	124	88	151	117	61	50
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	150	2150	648	319	2370	664	400	576	481	363	577	425
Arrive On Green	0.05	0.44	0.44	0.12	0.51	0.51	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1740	4940	1488	1774	4673	1310	1244	1900	1586	1142	1904	1401
Grp Volume(v), veh/h	72	1612	67	288	2233	157	124	88	151	117	55	56
Grp Sat Flow(s),veh/h/ln	1740	1647	1488	1774	1558	1310	1244	1900	1586	1142	1737	1568
Q Serve(g_s), s	2.9	35.6	3.5	13.1	58.6	8.7	10.4	4.4	9.5	10.8	3.0	3.4
Cycle Q Clear(g_c), s	2.9	35.6	3.5	13.1	58.6	8.7	13.8	4.4	9.5	15.2	3.0	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.89
Lane Grp Cap(c), veh/h	150	2150	648	319	2370	664	400	576	481	363	527	475
V/C Ratio(X)	0.48	0.75	0.10	0.90	0.94	0.24	0.31	0.15	0.31	0.32	0.10	0.12
Avail Cap(c_a), veh/h	166	2150	648	403	2370	664	400	576	481	363	527	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.9	30.8	21.7	32.0	30.2	17.9	37.7	33.1	34.9	38.7	32.6	32.7
Incr Delay (d2), s/veh	2.4	2.5	0.3	20.0	9.2	0.8	2.0	0.6	1.7	2.3	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	16.6	1.5	11.9	27.0	3.3	3.8	2.4	4.4	3.6	1.5	1.5
LnGrp Delay(d),s/veh	32.3	33.2	22.0	52.0	39.4	18.8	39.7	33.7	36.6	41.0	33.0	33.2
LnGrp LOS	C	C	C	D	D	B	D	C	D	D	C	C
Approach Vol, veh/h		1751			2678			363			228	
Approach Delay, s/veh		32.8			39.6			37.0			37.2	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	19.8	63.4		46.8	10.5	72.7		46.8
Change Period (Y+Rc), s	4.0	6.8		* 7.4	4.0	6.8		* 7.4
Max Green Setting (Gmax), s	22.0	50.4		* 39	7.7	64.7		* 39
Max Q Clear Time (g_c+I1), s	15.1	37.6		15.8	4.9	60.6		17.2
Green Ext Time (p_c), s	0.7	9.6		2.0	0.0	3.9		1.3

Intersection Summary		
HCM 2010 Ctrl Delay		36.9
HCM 2010 LOS		D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	214	92	224	44	60	183
Future Volume (vph)	214	92	224	44	60	183
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.978			0.850
Flt Protected		0.966			0.950	
Satd. Flow (prot)	0	1543	1742	0	1671	1482
Flt Permitted		0.966			0.950	
Satd. Flow (perm)	0	1543	1742	0	1671	1482
Link Speed (k/h)		50	50		50	
Link Distance (m)		120.2	260.2		319.6	
Travel Time (s)		8.7	18.7		23.0	
Confl. Peds. (#/hr)					4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	25%	5%	8%	0%	8%	9%
Adj. Flow (vph)	243	105	255	50	68	208
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	348	305	0	68	208
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	44.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	6.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	214	92	224	44	60	183
Future Vol, veh/h	214	92	224	44	60	183
Conflicting Peds, #/hr	0	0	0	0	4	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	25	5	8	0	8	9
Mvmt Flow	243	105	255	50	68	208

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	305	0	-	0	875	280
Stage 1	-	-	-	-	280	-
Stage 2	-	-	-	-	595	-
Critical Hdwy	4.35	-	-	-	6.48	6.29
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.425	-	-	-	3.572	3.381
Pot Cap-1 Maneuver	1136	-	-	-	312	742
Stage 1	-	-	-	-	754	-
Stage 2	-	-	-	-	539	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1136	-	-	-	241	742
Mov Cap-2 Maneuver	-	-	-	-	241	-
Stage 1	-	-	-	-	583	-
Stage 2	-	-	-	-	539	-

Approach	EB	WB	SB
HCM Control Delay, s	6.3	0	15.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1136	-	-	-	241	742
HCM Lane V/C Ratio	0.214	-	-	-	0.283	0.28
HCM Control Delay (s)	9	0	-	-	25.7	11.7
HCM Lane LOS	A	A	-	-	D	B
HCM 95th %tile Q(veh)	0.8	-	-	-	1.1	1.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	33	0	16	0	1331	48	32	1066	0
Future Volume (vph)	0	0	0	33	0	16	0	1331	48	32	1066	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt					0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3539	0	1770	3008	0	1863	4471	1583	1770	4471	1863
Flt Permitted				0.757						0.134		
Satd. Flow (perm)	1863	3539	0	1410	3008	0	1863	4471	1583	250	4471	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					68				52			
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		94.5			68.2			537.5			902.9	
Travel Time (s)		6.8			4.9			24.2			40.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	36	0	17	0	1447	52	35	1159	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	36	17	0	0	1447	52	35	1159	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5		23.5	23.5		24.6	24.6	24.6	24.6	24.6	24.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	0
Act Effct Green (s)				8.6	8.6			102.8	102.8	102.8	102.8	
Actuated g/C Ratio				0.07	0.07			0.86	0.86	0.86	0.86	
v/c Ratio				0.36	0.06			0.38	0.04	0.16	0.30	
Control Delay				62.0	0.4			2.3	0.5	3.9	2.1	
Queue Delay				0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay				62.0	0.4			2.3	0.5	3.9	2.1	
LOS				E	A			A	A	A	A	
Approach Delay					42.3			2.2			2.2	
Approach LOS					D			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 105 (88%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.38			
Intersection Signal Delay: 3.0		Intersection LOS: A	
Intersection Capacity Utilization 40.8%		ICU Level of Service A	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 8: Trafalgar Road & New Road A

Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	36	17	1447	52	35	1159
v/c Ratio	0.36	0.06	0.38	0.04	0.16	0.30
Control Delay	62.0	0.4	2.3	0.5	3.9	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.0	0.4	2.3	0.5	3.9	2.1
Queue Length 50th (m)	8.7	0.0	23.0	0.0	1.2	18.1
Queue Length 95th (m)	19.5	0.0	33.7	1.7	m3.8	26.3
Internal Link Dist (m)		44.2	513.5			878.9
Turn Bay Length (m)	25.0			45.0	65.0	
Base Capacity (vph)	287	668	3831	1364	214	3831
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.03	0.38	0.04	0.16	0.30

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	33	0	16	0	1331	48	32	1066	0
Future Volume (veh/h)	0	0	0	33	0	16	0	1331	48	32	1066	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	0	0	0	36	0	17	0	1447	52	35	1159	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	122	0	121	61	55	60	3865	1369	362	3865	1369
Arrive On Green	0.00	0.00	0.00	0.03	0.00	0.03	0.00	1.00	1.00	1.00	1.00	0.00
Sat Flow, veh/h	1390	3632	0	1774	1770	1583	483	4471	1583	349	4471	1583
Grp Volume(v), veh/h	0	0	0	36	0	17	0	1447	52	35	1159	0
Grp Sat Flow(s),veh/h/ln	1390	1770	0	1774	1770	1583	483	1490	1583	349	1490	1583
Q Serve(g_s), s	0.0	0.0	0.0	2.4	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.4	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	122	0	121	61	55	60	3865	1369	362	3865	1369
V/C Ratio(X)	0.00	0.00	0.00	0.30	0.00	0.31	0.00	0.37	0.04	0.10	0.30	0.00
Avail Cap(c_a), veh/h	296	723	0	422	361	323	60	3865	1369	362	3865	1369
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	57.1	0.0	56.5	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.3	0.0	3.2	0.0	0.3	0.1	0.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.2	0.0	0.6	0.0	0.1	0.0	0.1	0.1	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	58.4	0.0	59.7	0.0	0.3	0.1	0.5	0.2	0.0
LnGrp LOS				E		E		A	A	A	A	
Approach Vol, veh/h		0			53			1499			1194	
Approach Delay, s/veh		0.0			58.8			0.3			0.2	
Approach LOS					E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		110.4		9.6		110.4		9.6
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		2.0		0.0		2.0		4.4
Green Ext Time (p_c), s		21.5		0.0		15.8		0.2

Intersection Summary

HCM 2010 Ctrl Delay	1.4
HCM 2010 LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	80	0	0	49	0	0	0	0	0	0	0
Future Volume (vph)	0	80	0	0	49	0	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt												
Flt Protected												
Satd. Flow (prot)	0	1863	0	0	1863	0	0	3539	0	0	3539	0
Flt Permitted												
Satd. Flow (perm)	0	1863	0	0	1863	0	0	3539	0	0	3539	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		56.1			205.9			80.1			70.6	
Travel Time (s)		4.0			14.8			5.8			5.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	87	0	0	53	0	0	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	87	0	0	53	0	0	0	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
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)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 7.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	80	0	0	49	0	0	0	0	0	0	0
Future Vol, veh/h	0	80	0	0	49	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	87	0	0	53	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	53	0	0	87	0	0	140	140	87	140	140	53
Stage 1	-	-	-	-	-	-	87	87	-	53	53	-
Stage 2	-	-	-	-	-	-	53	53	-	87	87	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1553	-	-	1509	-	-	830	751	971	830	751	1014
Stage 1	-	-	-	-	-	-	921	823	-	960	851	-
Stage 2	-	-	-	-	-	-	960	851	-	921	823	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1553	-	-	1509	-	-	830	751	971	830	751	1014
Mov Cap-2 Maneuver	-	-	-	-	-	-	830	751	-	830	751	-
Stage 1	-	-	-	-	-	-	921	823	-	960	851	-
Stage 2	-	-	-	-	-	-	960	851	-	921	823	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	-	1553	-	-	1509	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	0	0	-	-	0	-	-	0	0
HCM Lane LOS	A	A	A	-	-	A	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0	-	-	0	-	-	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	86	141	0	0	0
Future Volume (vph)	0	86	141	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.865					
Flt Protected				0.950		
Satd. Flow (prot)	1611	0	0	3362	3539	0
Flt Permitted				0.950		
Satd. Flow (perm)	1611	0	0	3362	3539	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	51.6			89.3	74.2	
Travel Time (s)	3.7			6.4	5.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	93	153	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	93	0	0	153	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.8%	ICU Level of Service	A
Analysis Period (min)	15		

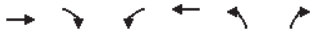
Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	86	141	0	0	0
Future Vol, veh/h	0	86	141	0	0	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	93	153	0	0	0

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	307	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	306	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	661	1083	1620	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	720	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	599	1083	1620	-	-	-
Mov Cap-2 Maneuver	599	-	-	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	720	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	7.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1620	-	1083	-	-
HCM Lane V/C Ratio	0.095	-	0.086	-	-
HCM Control Delay (s)	7.5	0	8.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.3	-	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	80	0	0	49	0
Future Volume (vph)	0	80	0	0	49	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected					0.950	
Satd. Flow (prot)	1611	0	0	1863	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	1611	0	0	1863	1770	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	205.9			49.4	119.6	
Travel Time (s)	14.8			3.6	8.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	87	0	0	53	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	87	0	0	0	53	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	15.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	80	0	0	49	0
Future Vol, veh/h	0	80	0	0	49	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	87	0	0	53	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	87	0	45	44
Stage 1	-	-	-	-	44	-
Stage 2	-	-	-	-	1	-
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	-	965	1026
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1509	-	965	1026
Mov Cap-2 Maneuver	-	-	-	-	965	-
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	965	-	-	1509	-
HCM Lane V/C Ratio	0.055	-	-	-	-
HCM Control Delay (s)	8.9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

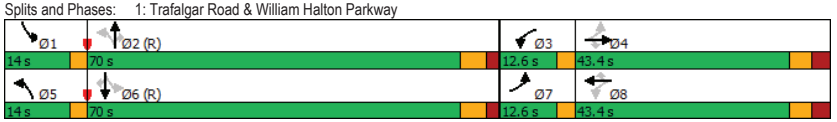
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	338	611	214	168	971	46	384	1532	108	256	1015	142
Future Volume (vph)	338	611	214	168	971	46	384	1532	108	256	1015	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4262	1553	1687	4515	1429
Flt Permitted	0.110			0.227			0.162			0.063		
Satd. Flow (perm)	195	3610	1583	431	3374	1553	308	4262	1553	112	4515	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			204			77			78			146
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	348	630	221	173	1001	47	396	1579	111	264	1046	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	348	630	221	173	1001	47	396	1579	111	264	1046	146
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	12.6	43.4	43.4	12.6	43.4	43.4	14.0	70.0	70.0	14.0	70.0	70.0
Total Split (%)	9.0%	31.0%	31.0%	9.0%	31.0%	31.0%	10.0%	50.0%	50.0%	10.0%	50.0%	50.0%
Maximum Green (s)	9.6	36.4	36.4	9.6	36.4	36.4	11.0	63.1	63.1	11.0	63.1	63.1
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	50.0	36.4	36.4	50.0	36.4	36.4	78.0	63.1	63.1	78.0	63.1	63.1
Actuated g/C Ratio	0.36	0.26	0.26	0.36	0.26	0.26	0.56	0.45	0.45	0.56	0.45	0.45
v/c Ratio	2.04	0.67	0.39	0.70	1.14	0.10	1.37	0.82	0.15	1.42	0.51	0.20
Control Delay	508.1	50.6	9.0	47.2	123.4	2.9	207.7	38.1	8.4	247.5	28.6	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	508.1	50.6	9.0	47.2	123.4	2.9	207.7	38.1	8.4	247.5	28.6	4.0
LOS	F	D	A	D	F	A	F	D	A	F	C	A
Approach Delay		175.7			108.0			68.7			65.8	
Approach LOS		F			F			E			E	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.04
Intersection Signal Delay: 97.6 Intersection LOS: F
Intersection Capacity Utilization 107.6% ICU Level of Service G
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 1: Trafalgar Road & William Halton Parkway



Queues
1: Trafalgar Road & William Halton Parkway

Future Total 5 Year
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	348	630	221	173	1001	47	396	1579	111	264	1046	146
v/c Ratio	2.04	0.67	0.39	0.70	1.14	0.10	1.37	0.82	0.15	1.42	0.51	0.20
Control Delay	508.1	50.6	9.0	47.2	123.4	2.9	207.7	38.1	8.4	247.5	28.6	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	508.1	50.6	9.0	47.2	123.4	2.9	207.7	38.1	8.4	247.5	28.6	4.0
Queue Length 50th (m)	~142.5	87.1	3.7	34.5	~179.0	0.0	~98.1	164.7	5.3	~87.4	89.3	0.0
Queue Length 95th (m)	#207.5	108.9	25.5	#55.8	#222.8	3.7	#167.2	189.1	17.0	#146.3	105.4	12.7
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	171	938	562	248	877	460	289	1920	742	186	2034	724
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.04	0.67	0.39	0.70	1.14	0.10	1.37	0.82	0.15	1.42	0.51	0.20

Intersection Summary

~ 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.

HCM 2010 Signalized Intersection Summary
1: Trafalgar Road & William Halton Parkway

Future Total 5 Year
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	338	611	214	168	971	46	384	1532	108	256	1015	142
Future Volume (veh/h)	338	611	214	168	971	46	384	1532	108	256	1015	142
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	348	630	221	173	1001	47	396	1579	111	264	1046	146
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	167	939	412	244	877	404	330	1921	700	220	2035	644
Arrive On Green	0.07	0.26	0.26	0.07	0.26	0.26	0.08	0.45	0.45	0.08	0.45	0.45
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4262	1553	1691	4515	1429
Grp Volume(v), veh/h	348	630	221	173	1001	47	396	1579	111	264	1046	146
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1421	1553	1691	1505	1429
Q Serve(g_s), s	9.6	21.9	16.8	9.6	36.4	3.2	11.0	45.3	5.9	11.0	23.2	8.7
Cycle Q Clear(g_c), s	9.6	21.9	16.8	9.6	36.4	3.2	11.0	45.3	5.9	11.0	23.2	8.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	939	412	244	877	404	330	1921	700	220	2035	644
V/C Ratio(X)	2.08	0.67	0.54	0.71	1.14	0.12	1.20	0.82	0.16	1.20	0.51	0.23
Avail Cap(c_a), veh/h	167	939	412	244	877	404	330	1921	700	220	2035	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	46.4	44.6	37.9	51.8	39.5	32.2	33.6	22.7	34.9	27.5	23.5
Incr Delay (d2), s/veh	505.4	2.5	2.5	9.2	77.2	0.3	116.0	4.1	0.5	126.3	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.5	11.3	7.6	2.2	26.3	1.4	17.9	18.4	2.6	16.2	9.8	3.6
LnGrp Delay(d),s/veh	546.9	48.9	47.1	47.1	129.0	39.8	148.2	37.7	23.2	161.2	28.4	24.3
LnGrp LOS	F	D	D	D	F	D	F	D	C	F	C	C
Approach Vol, veh/h		1199			1221			2086			1456	
Approach Delay, s/veh		193.1			113.9			57.9			52.1	
Approach LOS		F			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	70.0	12.6	43.4	14.0	70.0	12.6	43.4
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	11.0	* 63	9.6	36.4	11.0	* 63	9.6	36.4
Max Q Clear Time (g_c+I1), s	13.0	47.3	11.6	23.9	13.0	25.2	11.6	38.4
Green Ext Time (p_c), s	0.0	14.0	0.0	7.1	0.0	20.8	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	95.1
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	174	280	72	314	159	119	81	1571	112	143	1103	133
Future Volume (vph)	174	280	72	314	159	119	81	1571	112	143	1103	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.80	*0.80	1.00	*0.80	*0.80
Frt		0.969			0.936			0.990			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1791	0	1805	1739	0	1770	4201	0	1805	4175	0
Flt Permitted	0.451			0.356			0.140			0.077		
Satd. Flow (perm)	832	1791	0	676	1739	0	261	4201	0	146	4175	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			36			9			22	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	191	308	79	345	175	131	89	1726	123	157	1212	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	191	387	0	345	306	0	89	1849	0	157	1358	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	

Lanes, Volumes, Timings
2: Trafalgar Road & Burnhamthorpe Road E

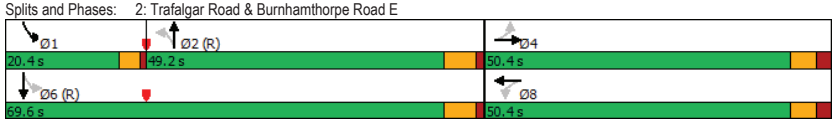
Future Total 5 Year
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		7.0	20.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		26.0	26.0		11.0	26.0	
Total Split (s)	50.4	50.4		50.4	50.4		49.2	49.2		20.4	69.6	
Total Split (%)	42.0%	42.0%		42.0%	42.0%		41.0%	41.0%		17.0%	58.0%	
Maximum Green (s)	44.4	44.4		44.4	44.4		43.2	43.2		16.4	63.6	
Yellow Time (s)	3.7	3.7		3.7	3.7		4.6	4.6		3.0	4.6	
All-Red Time (s)	2.3	2.3		2.3	2.3		1.4	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	44.4	44.4		44.4	44.4		48.2	48.2		65.6	63.6	
Actuated g/C Ratio	0.37	0.37		0.37	0.37		0.40	0.40		0.55	0.53	
v/c Ratio	0.62	0.58		1.38	0.46		0.86	1.09		0.66	0.61	
Control Delay	41.5	33.5		225.9	27.8		86.3	83.3		34.9	20.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	41.5	33.5		225.9	27.8		86.3	83.3		34.9	20.7	
LOS	D	C		F	C		F	F		C	C	
Approach Delay		36.1			132.8			83.4			22.2	
Approach LOS		D			F			F			C	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.38
Intersection Signal Delay: 64.6 Intersection LOS: E
Intersection Capacity Utilization 97.4% ICU Level of Service F
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E



Queues
2: Trafalgar Road & Burnhamthorpe Road E

Future Total 5 Year
AM Peak Hour

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	191	387	345	306	89	1849	157	1358
v/c Ratio	0.62	0.58	1.38	0.46	0.86	1.09	0.66	0.61
Control Delay	41.5	33.5	225.9	27.8	86.3	83.3	34.9	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.5	33.5	225.9	27.8	86.3	83.3	34.9	20.7
Queue Length 50th (m)	38.3	73.8	~113.5	50.1	17.6	~216.2	20.0	92.2
Queue Length 95th (m)	66.7	107.0	#173.3	77.1	#56.4	#263.4	42.5	109.9
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	307	670	250	666	104	1692	306	2223
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.58	1.38	0.46	0.86	1.09	0.51	0.61

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	174	280	72	314	159	119	81	1571	112	143	1103	133
Future Volume (veh/h)	174	280	72	314	159	119	81	1571	112	143	1103	133
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1848	1900	1900	1858	1900	1863	1768	1900	1900	1768	1900
Adj Flow Rate, veh/h	191	308	79	345	175	131	89	1726	123	157	1212	146
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	308	525	135	258	365	274	191	1828	130	189	2134	257
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.43	0.43	0.43	0.07	0.53	0.53
Sat Flow, veh/h	1059	1420	364	1012	988	739	399	4242	302	1810	4026	485
Grp Volume(v), veh/h	191	0	387	345	0	306	89	1150	699	157	851	507
Grp Sat Flow(s),veh/h/ln	1059	0	1784	1012	0	1727	399	1414	1715	1810	1414	1682
Q Serve(g_s), s	20.2	0.0	20.9	23.5	0.0	16.3	23.1	46.8	47.0	5.6	24.3	24.3
Cycle Q Clear(g_c), s	36.5	0.0	20.9	44.4	0.0	16.3	35.6	46.8	47.0	5.6	24.3	24.3
Prop In Lane	1.00		0.20	1.00		0.43	1.00		0.18	1.00		0.29
Lane Grp Cap(c), veh/h	308	0	660	258	0	639	191	1219	739	189	1499	892
V/C Ratio(X)	0.62	0.00	0.59	1.34	0.00	0.48	0.47	0.94	0.95	0.83	0.57	0.57
Avail Cap(c_a), veh/h	308	0	660	258	0	639	191	1219	739	317	1499	892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	0.0	30.4	51.0	0.0	28.9	34.9	32.7	32.8	27.5	19.0	19.0
Incr Delay (d2), s/veh	3.8	0.0	1.3	176.0	0.0	0.6	8.0	15.4	22.2	9.1	1.6	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	0.0	10.6	21.1	0.0	7.8	3.0	20.8	26.7	3.2	9.8	11.9
LnGrp Delay(d),s/veh	46.7	0.0	31.8	227.0	0.0	29.5	42.9	48.1	55.0	36.6	20.5	21.6
LnGrp LOS	D		C	F		C	D	D	D	D	C	C
Approach Vol, veh/h		578			651			1938			1515	
Approach Delay, s/veh		36.7			134.2			50.3			22.5	
Approach LOS		D			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	11.9	57.7		50.4		69.6		50.4
Change Period (Y+Rc), s	4.0	* 6		6.0		* 6		6.0
Max Green Setting (Gmax), s	16.4	* 43		44.4		* 64		44.4
Max Q Clear Time (g_c+I1), s	7.6	49.0		38.5		26.3		46.4
Green Ext Time (p_c), s	0.4	0.0		1.9		24.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	51.3
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

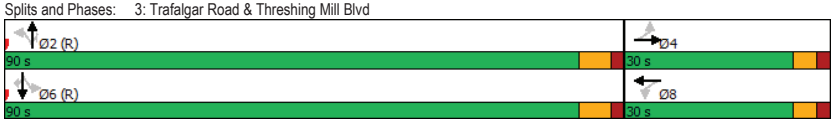
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	6	66	129	5	136	33	1496	61	121	1414	13
Future Volume (vph)	37	6	66	129	5	136	33	1496	61	121	1414	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.863			0.855				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3054	0	1410	2970	0	1770	4262	1404	1671	4262	1583
Flt Permitted	0.659			0.703			0.120			0.106		
Satd. Flow (perm)	1228	3054	0	1044	2970	0	224	4262	1404	186	4262	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		64			54				64			23
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		175.7			120.2			286.4			537.5	
Travel Time (s)		12.7			8.7			12.9			24.2	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Heavy Vehicles (%)	2%	2%	2%	28%	2%	4%	2%	7%	15%	8%	7%	2%
Adj. Flow (vph)	40	7	72	134	5	142	36	1558	64	126	1473	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	79	0	134	147	0	36	1558	64	126	1473	14
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		41.6	41.6	41.6	41.6	41.6	41.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0					0	0	0	0	0	0
Act Effct Green (s)	19.5	19.5		19.5	19.5		88.4	88.4	88.4	88.4	88.4	88.4
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.74	0.74	0.74	0.74	0.74	0.74
v/c Ratio	0.20	0.14		0.79	0.28		0.22	0.50	0.06	0.92	0.47	0.01
Control Delay	43.6	13.7		77.7	27.5		4.7	3.2	0.2	73.2	3.4	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.6	13.7		77.7	27.5		4.7	3.2	0.2	73.2	3.4	0.1
LOS	D	B		E	C		A	A	A	E	A	A
Approach Delay		23.8			51.5			3.2			8.9	
Approach LOS		C			D			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 13.2 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 10.0		Intersection LOS: B	
Intersection Capacity Utilization 78.2%		ICU Level of Service D	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 3: Trafalgar Road & Threshing Mill Blvd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	40	79	134	147	36	1558	64	126	1473	14
v/c Ratio	0.20	0.14	0.79	0.28	0.22	0.50	0.06	0.92	0.47	0.01
Control Delay	43.6	13.7	77.7	27.5	4.7	3.2	0.2	73.2	3.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.6	13.7	77.7	27.5	4.7	3.2	0.2	73.2	3.4	0.1
Queue Length 50th (m)	8.6	1.6	31.9	10.4	0.6	10.1	0.2	8.6	15.1	0.0
Queue Length 95th (m)	18.6	8.4	#53.8	19.5	m1.4	13.0	0.2	#69.6	16.7	m0.1
Internal Link Dist (m)		151.7		96.2		262.4			513.5	
Turn Bay Length (m)	25.0		25.0		75.0		45.0	65.0		45.0
Base Capacity (vph)	250	674	213	649	164	3138	1050	137	3138	1171
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.12	0.63	0.23	0.22	0.50	0.06	0.92	0.47	0.01

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	6	66	129	5	136	33	1496	61	121	1414	13
Future Volume (veh/h)	37	6	66	129	5	136	33	1496	61	121	1414	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1484	1828	1900	1863	1776	1652	1759	1776	1863
Adj Flow Rate, veh/h	40	7	72	134	5	142	36	1558	64	126	1473	14
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	2	2	2	28	2	4	2	7	15	8	7	2
Cap, veh/h	187	327	293	213	321	287	312	3044	1003	269	3044	1131
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	1.00	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1236	1770	1583	1047	1737	1554	353	4262	1404	293	4262	1583
Grp Volume(v), veh/h	40	7	72	134	5	142	36	1558	64	126	1473	14
Grp Sat Flow(s),veh/h/ln	1236	1770	1583	1047	1737	1554	353	1421	1404	293	1421	1583
Q Serve(g_s), s	3.6	0.4	4.7	15.0	0.3	9.8	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.4	0.4	4.7	19.7	0.3	9.8	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	187	327	293	213	321	287	312	3044	1003	269	3044	1131
V/C Ratio(X)	0.21	0.02	0.25	0.63	0.02	0.49	0.12	0.51	0.06	0.47	0.48	0.01
Avail Cap(c_a), veh/h	211	361	323	233	355	317	312	3044	1003	269	3044	1131
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.87	0.87	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.9	40.0	41.8	50.2	40.0	43.9	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.4	4.7	0.0	1.3	0.7	0.5	0.1	5.8	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.2	2.1	4.6	0.1	4.3	0.1	0.2	0.0	0.4	0.2	0.0
LnGrp Delay(d),s/veh	50.5	40.1	42.2	54.8	40.0	45.2	0.7	0.5	0.1	5.8	0.6	0.0
LnGrp LOS	D	D	D	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		119			281			1658			1613	
Approach Delay, s/veh		44.9			49.7			0.5			1.0	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		92.3		27.7		92.3		27.7
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		2.0		15.4		2.0		21.7
Green Ext Time (p_c), s		52.1		0.4		55.3		0.5

Intersection Summary

HCM 2010 Ctrl Delay	5.9
HCM 2010 LOS	A

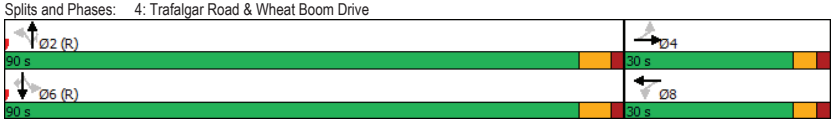
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	19	110	0	130	0	1457	56	38	1728	0
Future Volume (vph)	0	0	19	110	0	130	0	1457	56	38	1728	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3008	0	1327	2379	0	1863	4343	1292	1556	4262	1863
Flt Permitted				0.743						0.106		
Satd. Flow (perm)	1863	3008	0	1038	2379	0	1863	4343	1292	174	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33			53				60			
Link Speed (k/h)		50			50			60			80	
Link Distance (m)		170.2			342.3			409.5			286.4	
Travel Time (s)		12.3			24.6			24.6			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Heavy Vehicles (%)	2%	2%	2%	36%	2%	29%	2%	5%	25%	16%	7%	2%
Adj. Flow (vph)	0	0	21	118	0	140	0	1567	60	41	1858	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	0	118	140	0	0	1567	60	41	1858	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0			
Pedestrian Calls (#/hr)	0	0					0	0	0			
Act Effct Green (s)		18.2		18.2	18.2			89.7	89.7	89.7	89.7	
Actuated g/C Ratio		0.15		0.15	0.15			0.75	0.75	0.75	0.75	
v/c Ratio		0.04		0.75	0.34			0.48	0.06	0.32	0.58	
Control Delay		7.1		75.4	28.8			7.1	1.5	11.8	5.7	
Queue Delay		0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay		7.1		75.4	28.8			7.1	1.5	11.8	5.7	
LOS		A		E	C			A	A	B	A	
Approach Delay		7.1			50.1			6.9			5.9	
Approach LOS		A			D			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 9.3		Intersection LOS: A	
Intersection Capacity Utilization 56.2%		ICU Level of Service B	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	21	118	140	1567	60	41	1858
v/c Ratio	0.04	0.75	0.34	0.48	0.06	0.32	0.58
Control Delay	7.1	75.4	28.8	7.1	1.5	11.8	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	75.4	28.8	7.1	1.5	11.8	5.7
Queue Length 50th (m)	0.0	28.1	10.0	56.7	0.0	1.8	38.5
Queue Length 95th (m)	2.4	47.5	19.1	81.5	4.1	m7.1	68.5
Internal Link Dist (m)	146.2		318.3	385.5			262.4
Turn Bay Length (m)		25.0			45.0	65.0	
Base Capacity (vph)	640	211	527	3245	980	130	3184
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.56	0.27	0.48	0.06	0.32	0.58

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	19	110	0	130	0	1457	56	38	1728	0
Future Volume (veh/h)	0	0	19	110	0	130	0	1457	56	38	1728	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1397	1473	1900	1863	1810	1520	1638	1776	1863
Adj Flow Rate, veh/h	0	0	21	118	0	140	0	1567	60	41	1858	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Percent Heavy Veh, %	2	2	2	36	2	29	2	5	25	16	7	2
Cap, veh/h	60	261	233	201	206	184	60	3265	971	226	3204	1190
Arrive On Green	0.00	0.00	0.15	0.15	0.00	0.15	0.00	0.75	0.75	1.00	1.00	0.00
Sat Flow, veh/h	1244	1770	1583	1039	1399	1252	246	4343	1292	271	4262	1583
Grp Volume(v), veh/h	0	0	21	118	0	140	0	1567	60	41	1858	0
Grp Sat Flow(s),veh/h/ln	1244	1770	1583	1039	1399	1252	246	1448	1292	271	1421	1583
Q Serve(g_s), s	0.0	0.0	1.4	13.3	0.0	12.9	0.0	16.8	1.5	4.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.4	14.7	0.0	12.9	0.0	16.8	1.5	21.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	261	233	201	206	184	60	3265	971	226	3204	1190
V/C Ratio(X)	0.00	0.00	0.09	0.59	0.00	0.76	0.00	0.48	0.06	0.18	0.58	0.00
Avail Cap(c_a), veh/h	131	361	323	260	286	256	60	3265	971	226	3204	1190
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.86	0.86	0.00
Uniform Delay (d), s/veh	0.0	0.0	44.2	50.5	0.0	49.1	0.0	5.8	3.9	2.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.2	2.7	0.0	8.3	0.0	0.5	0.1	1.5	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	4.0	0.0	4.9	0.0	6.8	0.5	0.4	0.2	0.0
LnGrp Delay(d),s/veh	0.0	0.0	44.4	53.3	0.0	57.4	0.0	6.3	4.0	3.5	0.7	0.0
LnGrp LOS			D	D		E		A	A	A	A	
Approach Vol, veh/h		21			258			1627			1899	
Approach Delay, s/veh		44.4			55.5			6.2			0.7	
Approach LOS		D			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		96.8		23.2		96.8		23.2
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		18.8		3.4		23.0		16.7
Green Ext Time (p_c), s		24.0		0.1		33.3		1.0

Intersection Summary

HCM 2010 Ctrl Delay	7.0	
HCM 2010 LOS	A	

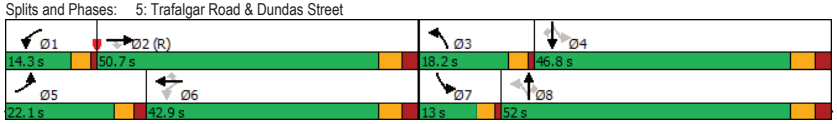
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	445	1868	255	204	1114	129	195	967	135	290	1127	349
Future Volume (vph)	445	1868	255	204	1114	129	195	967	135	290	1127	349
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98				1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	4343	1538	1736	4343	1524
Flt Permitted	0.950			0.110			0.092			0.154		
Satd. Flow (perm)	3400	5085	1557	195	4715	1292	168	4343	1538	281	4343	1497
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			203			172			138			272
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	454	1906	260	208	1137	132	199	987	138	296	1150	356
Shared Lane Traffic (%)												
Lane Group Flow (vph)	454	1906	260	208	1137	132	199	987	138	296	1150	356
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5	16.5	11.0	16.5	16.5
Total Split (s)	22.1	50.7	50.7	14.3	42.9	42.9	18.2	52.0	52.0	13.0	46.8	46.8
Total Split (%)	17.0%	39.0%	39.0%	11.0%	33.0%	33.0%	14.0%	40.0%	40.0%	10.0%	36.0%	36.0%
Maximum Green (s)	17.1	44.3	44.3	10.3	36.5	36.5	14.2	45.5	45.5	9.0	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	18.5	44.3	44.3	50.6	36.5	36.5	59.4	44.1	44.1	50.9	39.4	39.4
Actuated g/C Ratio	0.14	0.34	0.34	0.39	0.28	0.28	0.46	0.34	0.34	0.39	0.30	0.30
v/c Ratio	0.94	1.10	0.39	0.99	0.86	0.27	0.82	0.67	0.23	1.41	0.87	0.55
Control Delay	83.8	94.9	9.8	112.3	39.3	2.0	55.9	39.1	5.5	234.4	51.3	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.8	94.9	9.8	112.3	39.3	2.0	55.9	39.1	5.5	234.4	51.3	12.6
LOS	F	F	A	F	D	A	E	D	A	F	D	B
Approach Delay		84.6			46.2			38.2			73.7	
Approach LOS		F			D			D			E	

Intersection Summary		
Area Type:	Other	
Cycle Length: 130		
Actuated Cycle Length: 130		
Offset: 18.2 (14%), Referenced to phase 2:EBT, Start of Green		
Natural Cycle: 110		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 1.41		
Intersection Signal Delay: 65.5	Intersection LOS: E	
Intersection Capacity Utilization 99.6%	ICU Level of Service F	
Analysis Period (min) 15		

* User Entered Value

Splits and Phases: 5: Trafalgar Road & Dundas Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	454	1906	260	208	1137	132	199	987	138	296	1150	356
v/c Ratio	0.94	1.10	0.39	0.99	0.86	0.27	0.82	0.67	0.23	1.41	0.87	0.55
Control Delay	83.8	94.9	9.8	112.3	39.3	2.0	55.9	39.1	5.5	234.4	51.3	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.8	94.9	9.8	112.3	39.3	2.0	55.9	39.1	5.5	234.4	51.3	12.6
Queue Length 50th (m)	~65.3	~213.3	10.5	~47.8	108.6	1.5	35.1	92.9	0.0	~80.3	121.3	16.6
Queue Length 95th (m)	#101.1	#244.1	32.7	#100.9	127.4	2.7	#74.7	111.4	14.3	#140.0	143.9	47.5
Internal Link Dist (m)		530.9			391.5			307.2			385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Base Capacity (vph)	483	1732	664	210	1323	486	248	1520	628	210	1347	651
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.94	1.10	0.39	0.99	0.86	0.27	0.80	0.65	0.22	1.41	0.85	0.55

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	445	1868	255	204	1114	129	195	967	135	290	1127	349
Future Volume (veh/h)	445	1868	255	204	1114	129	195	967	135	290	1127	349
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1810	1827	1810	1792
Adj Flow Rate, veh/h	454	1906	260	208	1137	132	199	987	138	296	1150	356
Adj No. of Lanes	2	3	1	1	3	1	1	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	448	1855	576	189	1438	392	235	1415	499	238	1309	457
Arrive On Green	0.13	0.36	0.36	0.08	0.30	0.30	0.09	0.33	0.33	0.07	0.30	0.30
Sat Flow, veh/h	3408	5085	1578	1691	4715	1287	1740	4343	1531	1740	4343	1516
Grp Volume(v), veh/h	454	1906	260	208	1137	132	199	987	138	296	1150	356
Grp Sat Flow(s),veh/h/ln	1704	1695	1578	1691	1572	1287	1740	1448	1531	1740	1448	1516
Q Serve(g_s), s	17.1	47.4	16.3	10.3	28.7	10.3	10.0	25.8	8.7	9.0	32.7	27.9
Cycle Q Clear(g_c), s	17.1	47.4	16.3	10.3	28.7	10.3	10.0	25.8	8.7	9.0	32.7	27.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	448	1855	576	189	1438	392	235	1415	499	238	1309	457
V/C Ratio(X)	1.01	1.03	0.45	1.10	0.79	0.34	0.85	0.70	0.28	1.24	0.88	0.78
Avail Cap(c_a), veh/h	448	1855	576	189	1438	392	262	1520	536	238	1346	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	41.3	31.4	34.9	41.4	35.0	32.0	38.2	32.5	40.7	43.1	41.5
Incr Delay (d2), s/veh	45.7	28.2	2.5	94.2	3.8	1.4	20.7	1.4	0.4	139.4	6.9	8.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	27.0	7.5	11.7	12.9	3.8	6.1	10.5	3.7	15.1	13.9	12.7
LnGrp Delay(d),s/veh	102.2	69.5	33.9	129.1	45.2	36.4	52.7	39.6	32.8	180.2	50.1	49.7
LnGrp LOS	F	F	C	F	D	D	D	D	C	F	D	D
Approach Vol, veh/h		2620			1477			1324			1802	
Approach Delay, s/veh		71.6			56.2			40.9			71.4	
Approach LOS		E			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	53.8	16.2	45.7	22.1	46.0	13.0	48.9
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	10.3	44.3	14.2	40.3	17.1	36.5	9.0	45.5
Max Q Clear Time (g_c+I1), s	12.3	49.4	12.0	34.7	19.1	30.7	11.0	27.8
Green Ext Time (p_c), s	0.0	0.0	0.2	4.5	0.0	5.0	0.0	9.2

Intersection Summary	
HCM 2010 Ctrl Delay	62.8
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	2238	36	148	1317	86	65	39	169	149	86	110
Future Volume (vph)	41	2238	36	148	1317	86	65	39	169	149	86	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00		0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.916	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3140	0
Flt Permitted	0.176			0.059			0.621			0.730		
Satd. Flow (perm)	321	4940	1470	110	4673	1281	1128	1900	1577	1371	3140	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			70			91			137		44	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	44	2381	38	157	1401	91	69	41	180	159	91	117
Shared Lane Traffic (%)												
Lane Group Flow (vph)	44	2381	38	157	1401	91	69	41	180	159	208	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	2	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	26.8	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	70.2	70.2	70.2	13.0	83.2	83.2	46.8	46.8	46.8	46.8	46.8	
Total Split (%)	54.0%	54.0%	54.0%	10.0%	64.0%	64.0%	36.0%	36.0%	36.0%	36.0%	36.0%	
Maximum Green (s)	63.4	63.4	63.4	9.0	76.4	76.4	39.4	39.4	39.4	39.4	39.4	
Yellow Time (s)	4.2	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.6	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.8	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	24.0	24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	63.4	63.4	63.4	79.2	76.4	76.4	39.4	39.4	39.4	39.4	39.4	
Actuated g/C Ratio	0.49	0.49	0.49	0.61	0.59	0.59	0.30	0.30	0.30	0.30	0.30	
v/c Ratio	0.28	0.99	0.05	0.87	0.51	0.12	0.20	0.07	0.31	0.38	0.21	
Control Delay	20.0	33.1	1.9	67.4	16.6	2.6	35.7	32.8	11.3	39.1	27.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	20.0	33.1	1.9	67.4	16.6	2.6	35.7	32.8	11.3	39.1	27.0	
LOS	C	C	A	E	B	A	D	C	B	D	C	
Approach Delay		32.4			20.7			20.2			32.2	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 9.1 (7%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 27.6		Intersection LOS: C	
Intersection Capacity Utilization 113.6%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 6: Postridge Drive & Dundas Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	44	2381	38	157	1401	91	69	41	180	159	208
v/c Ratio	0.28	0.99	0.05	0.87	0.51	0.12	0.20	0.07	0.31	0.38	0.21
Control Delay	20.0	33.1	1.9	67.4	16.6	2.6	35.7	32.8	11.3	39.1	27.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.0	33.1	1.9	67.4	16.6	2.6	35.7	32.8	11.3	39.1	27.0
Queue Length 50th (m)	4.5	118.3	0.3	25.2	77.6	0.0	13.8	7.9	8.3	33.8	17.1
Queue Length 95th (m)	m4.8	m93.0	m0.3	#66.3	90.1	7.4	26.9	16.9	27.0	55.0	27.6
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	156	2409	752	181	2746	790	341	575	573	415	982
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.99	0.05	0.87	0.51	0.12	0.20	0.07	0.31	0.38	0.21

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	2238	36	148	1317	86	65	39	169	149	86	110
Future Volume (veh/h)	41	2238	36	148	1317	86	65	39	169	149	86	110
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1825	1900
Adj Flow Rate, veh/h	44	2381	38	157	1401	91	69	41	180	159	91	117
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	197	2409	726	180	2746	770	336	576	481	389	525	466
Arrive On Green	0.49	0.49	0.49	0.07	0.59	0.59	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	344	4940	1489	1774	4673	1310	1140	1900	1586	1160	1733	1539
Grp Volume(v), veh/h	44	2381	38	157	1401	91	69	41	180	159	91	117
Grp Sat Flow(s),veh/h/ln	344	1647	1489	1774	1558	1310	1140	1900	1586	1160	1733	1539
Q Serve(g_s), s	11.2	62.0	1.7	7.2	23.0	4.0	6.3	2.0	11.6	14.7	5.0	7.5
Cycle Q Clear(g_c), s	21.2	62.0	1.7	7.2	23.0	4.0	13.8	2.0	11.6	16.7	5.0	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	197	2409	726	180	2746	770	336	576	481	389	525	466
V/C Ratio(X)	0.22	0.99	0.05	0.87	0.51	0.12	0.21	0.07	0.37	0.41	0.17	0.25
Avail Cap(c_a), veh/h	197	2409	726	180	2746	770	336	576	481	389	525	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.8	32.9	17.5	38.2	15.8	11.9	39.4	32.3	35.6	38.2	33.3	34.2
Incr Delay (d2), s/veh	2.6	15.8	0.1	34.5	0.7	0.3	1.4	0.2	2.2	3.2	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	31.5	0.7	7.3	10.0	1.5	2.1	1.1	5.4	5.1	2.5	3.3
LnGrp Delay(d),s/veh	28.4	48.7	17.6	72.7	16.5	12.2	40.7	32.5	37.8	41.4	34.0	35.5
LnGrp LOS	C	D	B	E	B	B	D	C	D	D	C	D
Approach Vol, veh/h		2463			1649			290			367	
Approach Delay, s/veh		47.9			21.6			37.8			37.7	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	13.0	70.2		46.8		83.2		46.8
Change Period (Y+Rc), s	4.0	6.8		* 7.4		6.8		* 7.4
Max Green Setting (Gmax), s	9.0	63.4		* 39		76.4		* 39
Max Q Clear Time (g_c+I1), s	9.2	64.0		15.8		25.0		18.7
Green Ext Time (p_c), s	0.0	0.0		1.5		19.4		2.3

Intersection Summary

HCM 2010 Ctrl Delay		37.4	
HCM 2010 LOS		D	

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	81	99	104	35	76	160
Future Volume (vph)	81	99	104	35	76	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.966			0.850
Flt Protected		0.978			0.950	
Satd. Flow (prot)	0	1630	1732	0	1671	1482
Flt Permitted		0.978			0.950	
Satd. Flow (perm)	0	1630	1732	0	1671	1482
Link Speed (k/h)		50	50		50	
Link Distance (m)		120.2	260.2		319.6	
Travel Time (s)		8.7	18.7		23.0	
Confl. Peds. (#/hr)					4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	25%	5%	8%	0%	8%	9%
Adj. Flow (vph)	92	113	118	40	86	182
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	205	158	0	86	182
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 31.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	81	99	104	35	76	160
Future Vol, veh/h	81	99	104	35	76	160
Conflicting Peds, #/hr	0	0	0	0	4	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	25	5	8	0	8	9
Mvmt Flow	92	113	118	40	86	182

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	158	0	-	0	439	138
Stage 1	-	-	-	-	138	-
Stage 2	-	-	-	-	301	-
Critical Hdwy	4.35	-	-	-	6.48	6.29
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.425	-	-	-	3.572	3.381
Pot Cap-1 Maneuver	1293	-	-	-	564	892
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	737	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1293	-	-	-	521	892
Mov Cap-2 Maneuver	-	-	-	-	521	-
Stage 1	-	-	-	-	808	-
Stage 2	-	-	-	-	737	-

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1293	-	-	-	521	892
HCM Lane V/C Ratio	0.071	-	-	-	0.166	0.204
HCM Control Delay (s)	8	0	-	-	13.3	10.1
HCM Lane LOS	A	A	-	-	B	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6	0.8

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	39	0	79	0	1685	14	32	1457	0
Future Volume (vph)	0	0	0	39	0	79	0	1685	14	32	1457	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt					0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3539	0	1770	3008	0	1863	4471	1583	1770	4471	1863
Flt Permitted				0.757						0.079		
Satd. Flow (perm)	1863	3539	0	1410	3008	0	1863	4471	1583	147	4471	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					33				23			
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		94.5			82.6			537.5			902.9	
Travel Time (s)		6.8			5.9			24.2			40.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	42	0	86	0	1832	15	35	1584	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	42	86	0	0	1832	15	35	1584	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5		23.5	23.5		24.6	24.6	24.6	24.6	24.6	24.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	0
Act Effct Green (s)				9.0	9.0			102.4	102.4	102.4	102.4	
Actuated g/C Ratio				0.08	0.08			0.85	0.85	0.85	0.85	
v/c Ratio				0.40	0.33			0.48	0.01	0.28	0.42	
Control Delay				62.8	36.4			2.9	0.4	4.8	1.3	
Queue Delay				0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay				62.8	36.4			2.9	0.4	4.8	1.3	
LOS				E	D			A	A	A	A	
Approach Delay					45.1			2.8			1.3	
Approach LOS					D			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 3.7		Intersection LOS: A	
Intersection Capacity Utilization 46.8%		ICU Level of Service A	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 8: Trafalgar Road & New Road A

Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	42	86	1832	15	35	1584
v/c Ratio	0.40	0.33	0.48	0.01	0.28	0.42
Control Delay	62.8	36.4	2.9	0.4	4.8	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.8	36.4	2.9	0.4	4.8	1.3
Queue Length 50th (m)	10.1	6.6	35.7	0.0	0.7	15.3
Queue Length 95th (m)	21.6	14.7	49.5	m0.3	m1.5	m20.0
Internal Link Dist (m)		58.6	513.5			878.9
Turn Bay Length (m)	25.0			45.0	65.0	
Base Capacity (vph)	287	640	3814	1354	125	3814
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.13	0.48	0.01	0.28	0.42

Intersection Summary
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	39	0	79	0	1685	14	32	1457	0
Future Volume (veh/h)	0	0	0	39	0	79	0	1685	14	32	1457	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	0	0	0	42	0	86	0	1832	15	35	1584	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	261	0	191	130	117	60	3690	1307	266	3690	1307
Arrive On Green	0.00	0.00	0.00	0.07	0.00	0.07	0.00	1.00	1.00	1.00	1.00	0.00
Sat Flow, veh/h	1306	3632	0	1774	1770	1583	321	4471	1583	249	4471	1583
Grp Volume(v), veh/h	0	0	0	42	0	86	0	1832	15	35	1584	0
Grp Sat Flow(s),veh/h/ln	1306	1770	0	1774	1770	1583	321	1490	1583	249	1490	1583
Q Serve(g_s), s	0.0	0.0	0.0	2.7	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.7	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	261	0	191	130	117	60	3690	1307	266	3690	1307
V/C Ratio(X)	0.00	0.00	0.00	0.22	0.00	0.74	0.00	0.50	0.01	0.13	0.43	0.00
Avail Cap(c_a), veh/h	230	723	0	422	361	323	60	3690	1307	266	3690	1307
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	52.7	0.0	54.4	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.6	0.0	8.7	0.0	0.5	0.0	1.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.3	0.0	3.1	0.0	0.2	0.0	0.1	0.1	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	53.3	0.0	63.2	0.0	0.5	0.0	1.0	0.4	0.0
LnGrp LOS				D		E		A	A	A	A	
Approach Vol, veh/h		0			128			1847			1619	
Approach Delay, s/veh		0.0			59.9			0.5			0.4	
Approach LOS					E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		105.7		14.3		105.7		14.3
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		2.0		0.0		2.0		8.4
Green Ext Time (p_c), s		33.1		0.0		28.0		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	2.6
HCM 2010 LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	25	21	12	68	0	50	0	3	0	0	0
Future Volume (vph)	0	25	21	12	68	0	50	0	3	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.938						0.992				
Flt Protected					0.993			0.955				
Satd. Flow (prot)	0	1747	0	0	1850	0	0	3353	0	0	3539	0
Flt Permitted					0.993			0.955				
Satd. Flow (perm)	0	1747	0	0	1850	0	0	3353	0	0	3539	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		41.7			205.9			80.1			70.6	
Travel Time (s)		3.0			14.8			5.8			5.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	27	23	13	74	0	54	0	3	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	87	0	0	57	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
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)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	25	21	12	68	0	50	0	3	0	0	0
Future Vol, veh/h	0	25	21	12	68	0	50	0	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	27	23	13	74	0	54	0	3	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	74	0	0	50	0	0	139	139	39	140	150	74
Stage 1	-	-	-	-	-	-	39	39	-	100	100	-
Stage 2	-	-	-	-	-	-	100	100	-	40	50	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1526	-	-	1557	-	-	831	752	1033	830	742	988
Stage 1	-	-	-	-	-	-	976	862	-	906	812	-
Stage 2	-	-	-	-	-	-	906	812	-	975	853	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1526	-	-	1557	-	-	825	745	1033	822	735	988
Mov Cap-2 Maneuver	-	-	-	-	-	-	825	745	-	822	735	-
Stage 1	-	-	-	-	-	-	976	862	-	906	805	-
Stage 2	-	-	-	-	-	-	898	805	-	972	853	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.1	9.6	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	825	1033	1526	-	-	1557	-	-	-	-
HCM Lane V/C Ratio	0.066	0.003	-	-	-	0.008	-	-	-	-
HCM Control Delay (s)	9.7	8.5	0	-	-	7.3	0	-	0	0
HCM Lane LOS	A	A	A	-	-	A	A	-	A	A
HCM 95th %tile Q(veh)	0.2	0	0	-	-	0	-	-	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	50	92	29	3	12	21
Future Volume (vph)	50	92	29	3	12	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.912				0.904	
Flt Protected	0.983			0.956		
Satd. Flow (prot)	1670	0	0	3383	3199	0
Flt Permitted	0.983			0.956		
Satd. Flow (perm)	1670	0	0	3383	3199	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	51.6			89.3	74.2	
Travel Time (s)	3.7			6.4	5.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	100	32	3	13	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	154	0	0	35	36	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.4%		ICU Level of Service A	
Analysis Period (min) 15			

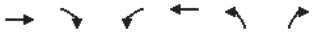
Intersection	
Int Delay, s/veh	7.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	92	29	3	12	21
Future Vol, veh/h	50	92	29	3	12	21
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	100	32	3	13	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	91	18	36	0	-	0
Stage 1	25	-	-	-	-	-
Stage 2	66	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	899	1056	1573	-	-	-
Stage 1	994	-	-	-	-	-
Stage 2	949	-	-	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	881	1056	1573	-	-	-
Mov Cap-2 Maneuver	881	-	-	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	949	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	6.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1573	-	987	-	-
HCM Lane V/C Ratio	0.02	-	0.156	-	-
HCM Control Delay (s)	7.3	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	28	0	0	80	0
Future Volume (vph)	0	28	0	0	80	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected					0.950	
Satd. Flow (prot)	1611	0	0	1863	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	1611	0	0	1863	1770	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	205.9			49.4	119.6	
Travel Time (s)	14.8			3.6	8.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	30	0	0	87	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	30	0	0	0	87	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 14.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	6.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	28	0	0	80	0
Future Vol, veh/h	0	28	0	0	80	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	30	0	0	87	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	30	0	16	15
Stage 1	-	-	-	-	15	-
Stage 2	-	-	-	-	1	-
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	-	-	1583	-	1002	1065
Stage 1	-	-	-	-	1008	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1583	-	1002	1065
Mov Cap-2 Maneuver	-	-	-	-	1002	-
Stage 1	-	-	-	-	1008	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1002	-	-	1583	-
HCM Lane V/C Ratio	0.087	-	-	-	-
HCM Control Delay (s)	8.9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

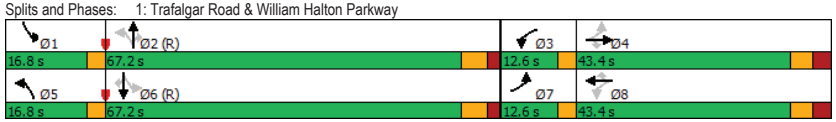
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	378	299	128	600	1643	32	344	1906	91	200	1396	552
Future Volume (vph)	378	299	128	600	1643	32	344	1906	91	200	1396	552
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4262	1553	1687	4515	1429
Flt Permitted	0.110			0.514			0.066			0.066		
Satd. Flow (perm)	195	3610	1583	977	3374	1553	125	4262	1553	117	4515	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			132			77			78			181
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	390	308	132	619	1694	33	355	1965	94	206	1439	569
Shared Lane Traffic (%)												
Lane Group Flow (vph)	390	308	132	619	1694	33	355	1965	94	206	1439	569
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	12.6	43.4	43.4	12.6	43.4	43.4	16.8	67.2	67.2	16.8	67.2	67.2
Total Split (%)	9.0%	31.0%	31.0%	9.0%	31.0%	31.0%	12.0%	48.0%	48.0%	12.0%	48.0%	48.0%
Maximum Green (s)	9.6	36.4	36.4	9.6	36.4	36.4	13.8	60.3	60.3	13.8	60.3	60.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	50.0	36.4	36.4	50.0	36.4	36.4	78.0	60.3	60.3	78.0	60.3	60.3
Actuated g/C Ratio	0.36	0.26	0.26	0.36	0.26	0.26	0.56	0.43	0.43	0.56	0.43	0.43
v/c Ratio	2.28	0.33	0.26	1.53	1.93	0.07	1.51	1.07	0.13	0.94	0.74	0.79
Control Delay	615.2	43.1	7.7	281.2	452.3	0.3	281.1	81.3	7.3	83.8	36.2	32.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	615.2	43.1	7.7	281.2	452.3	0.3	281.1	81.3	7.3	83.8	36.2	32.3
LOS	F	D	A	F	F	A	F	F	A	F	D	C
Approach Delay		306.3			400.8			107.8			39.6	
Approach LOS		F			F			F			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 140			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 2.28			
Intersection Signal Delay: 197.6		Intersection LOS: F	
Intersection Capacity Utilization 132.5%		ICU Level of Service H	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 1: Trafalgar Road & William Halton Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	390	308	132	619	1694	33	355	1965	94	206	1439	569
v/c Ratio	2.28	0.33	0.26	1.53	1.93	0.07	1.51	1.07	0.13	0.94	0.74	0.79
Control Delay	615.2	43.1	7.7	281.2	452.3	0.3	281.1	81.3	7.3	83.8	36.2	32.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	615.2	43.1	7.7	281.2	452.3	0.3	281.1	81.3	7.3	83.8	36.2	32.3
Queue Length 50th (m)	~168.2	38.4	0.0	~251.6	~399.5	0.0	~126.8	~263.8	2.7	43.7	144.0	101.5
Queue Length 95th (m)	#235.7	52.6	16.6	#327.2	#443.7	0.0	#191.8	#298.3	13.8	#94.6	166.0	157.0
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	171	938	509	405	877	460	235	1835	713	219	1944	718
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.28	0.33	0.26	1.53	1.93	0.07	1.51	1.07	0.13	0.94	0.74	0.79

Intersection Summary
~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	378	299	128	600	1643	32	344	1906	91	200	1396	552
Future Volume (veh/h)	378	299	128	600	1643	32	344	1906	91	200	1396	552
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	390	308	132	619	1694	33	355	1965	94	206	1439	569
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	167	939	412	360	877	404	265	1836	669	218	1945	616
Arrive On Green	0.07	0.26	0.26	0.07	0.26	0.26	0.10	0.43	0.43	0.10	0.43	0.43
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4262	1553	1691	4515	1429
Grp Volume(v), veh/h	390	308	132	619	1694	33	355	1965	94	206	1439	569
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1421	1553	1691	1505	1429
Q Serve(g_s), s	9.6	9.7	9.4	9.6	36.4	2.2	13.8	60.3	5.1	12.7	37.3	52.7
Cycle Q Clear(g_c), s	9.6	9.7	9.4	9.6	36.4	2.2	13.8	60.3	5.1	12.7	37.3	52.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	939	412	360	877	404	265	1836	669	218	1945	616
V/C Ratio(X)	2.33	0.33	0.32	1.72	1.93	0.08	1.34	1.07	0.14	0.94	0.74	0.92
Avail Cap(c_a), veh/h	167	939	412	360	877	404	265	1836	669	218	1945	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	41.9	41.8	48.9	51.8	39.2	37.7	39.9	24.1	44.6	33.3	37.7
Incr Delay (d2), s/veh	616.7	0.4	1.0	336.0	423.2	0.2	175.1	42.8	0.4	45.4	2.6	21.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	30.7	4.9	4.2	42.7	68.5	1.0	23.2	30.9	2.3	10.6	15.9	24.5
LnGrp Delay(d),s/veh	658.2	42.3	42.8	385.0	475.0	39.3	212.7	82.6	24.6	90.0	35.9	59.5
LnGrp LOS	F	D	D	F	F	D	F	F	C	F	D	E
Approach Vol, veh/h		830			2346			2414			2214	
Approach Delay, s/veh		331.8			445.1			99.5			47.0	
Approach LOS		F			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.8	67.2	12.6	43.4	16.8	67.2	12.6	43.4
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	13.8	* 60	9.6	36.4	13.8	* 60	9.6	36.4
Max Q Clear Time (g_c+I1), s	14.7	62.3	11.6	11.7	15.8	54.7	11.6	38.4
Green Ext Time (p_c), s	0.0	0.0	0.0	5.4	0.0	5.4	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	213.2
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

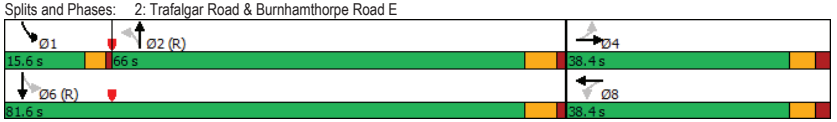
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	273	64	292	236	135	128	1848	117	192	1513	302
Future Volume (vph)	131	273	64	292	236	135	128	1848	117	192	1513	302
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.80	*0.80	1.00	*0.80	*0.80
Frt		0.972			0.945			0.991			0.975	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1797	0	1805	1751	0	1770	4203	0	1805	4149	0
Flt Permitted	0.207			0.263			0.066			0.062		
Satd. Flow (perm)	382	1797	0	500	1751	0	123	4203	0	118	4149	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			23			10			54	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	144	300	70	321	259	148	141	2031	129	211	1663	332
Shared Lane Traffic (%)												
Lane Group Flow (vph)	144	370	0	321	407	0	141	2160	0	211	1995	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		7.0	20.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		26.0	26.0		11.0	26.0	
Total Split (s)	38.4	38.4		38.4	38.4		66.0	66.0		15.6	81.6	
Total Split (%)	32.0%	32.0%		32.0%	32.0%		55.0%	55.0%		13.0%	68.0%	
Maximum Green (s)	32.4	32.4		32.4	32.4		60.0	60.0		11.6	75.6	
Yellow Time (s)	3.7	3.7		3.7	3.7		4.6	4.6		3.0	4.6	
All-Red Time (s)	2.3	2.3		2.3	2.3		1.4	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	32.4	32.4		32.4	32.4		60.3	60.3		77.6	75.6	
Actuated g/C Ratio	0.27	0.27		0.27	0.27		0.50	0.50		0.65	0.63	
v/c Ratio	1.40	0.75		2.38	0.83		2.31	1.02		0.90	0.76	
Control Delay	262.4	49.9		664.6	54.8		647.6	52.5		66.5	17.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	262.4	49.9		664.6	54.8		647.6	52.5		66.5	17.6	
LOS	F	D		F	D		F	D		E	B	
Approach Delay		109.4			323.7			88.9			22.3	
Approach LOS		F			F			F			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 2.38			
Intersection Signal Delay: 94.9		Intersection LOS: F	
Intersection Capacity Utilization 107.1%		ICU Level of Service G	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	144	370	321	407	141	2160	211	1995
v/c Ratio	1.40	0.75	2.38	0.83	2.31	1.02	0.90	0.76
Control Delay	262.4	49.9	664.6	54.8	647.6	52.5	66.5	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	262.4	49.9	664.6	54.8	647.6	52.5	66.5	17.6
Queue Length 50th (m)	~47.7	82.1	~130.8	90.4	~57.3	~234.4	34.8	132.5
Queue Length 95th (m)	#90.5	119.2	#189.0	#143.0	#101.6	#272.5	#80.4	155.0
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	103	492	135	489	61	2115	239	2633
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.40	0.75	2.38	0.83	2.31	1.02	0.88	0.76

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	273	64	292	236	135	128	1848	117	192	1513	302
Future Volume (veh/h)	131	273	64	292	236	135	128	1848	117	192	1513	302
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1849	1900	1900	1853	1900	1863	1767	1900	1900	1773	1900
Adj Flow Rate, veh/h	144	300	70	321	259	148	141	2031	129	211	1663	332
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	106	392	91	142	299	171	131	2253	143	285	2355	467
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	1.00	1.00	1.00	0.07	0.63	0.63
Sat Flow, veh/h	965	1451	339	1028	1108	633	215	4276	270	1810	3738	741
Grp Volume(v), veh/h	144	0	370	321	0	407	141	1340	820	211	1259	736
Grp Sat Flow(s),veh/h/ln	965	0	1789	1028	0	1741	215	1414	1719	1810	1418	1642
Q Serve(g_s), s	5.7	0.0	22.8	9.6	0.0	26.7	39.5	0.0	0.0	6.1	35.4	36.1
Cycle Q Clear(g_c), s	32.4	0.0	22.8	32.4	0.0	26.7	63.2	0.0	0.0	6.1	35.4	36.1
Prop In Lane	1.00		0.19	1.00		0.36	1.00		0.16	1.00		0.45
Lane Grp Cap(c), veh/h	106	0	483	142	0	470	131	1490	906	285	1787	1035
V/C Ratio(X)	1.36	0.00	0.77	2.26	0.00	0.87	1.08	0.90	0.91	0.74	0.70	0.71
Avail Cap(c_a), veh/h	106	0	483	142	0	470	131	1490	906	333	1787	1035
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.8	0.0	40.3	57.2	0.0	41.7	20.9	0.0	0.0	13.1	14.8	14.9
Incr Delay (d2), s/veh	212.6	0.0	7.2	589.5	0.0	15.5	100.6	9.0	14.2	7.2	2.4	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	0.0	12.3	27.9	0.0	14.9	8.0	1.9	3.6	4.4	14.4	17.3
LnGrp Delay(d),s/veh	271.3	0.0	47.5	646.8	0.0	57.2	121.5	9.0	14.2	20.4	17.1	19.0
LnGrp LOS	F		D	F		E	F	A	B	C	B	B
Approach Vol, veh/h		514			728			2301			2206	
Approach Delay, s/veh		110.2			317.2			17.8			18.1	
Approach LOS		F			F			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	12.4	69.2		38.4		81.6		38.4
Change Period (Y+Rc), s	4.0	* 6		6.0		* 6		6.0
Max Green Setting (Gmax), s	11.6	* 60		32.4		* 76		32.4
Max Q Clear Time (g_c+I1), s	8.1	65.2		34.4		38.1		34.4
Green Ext Time (p_c), s	0.3	0.0		0.0		33.4		0.0

Intersection Summary

HCM 2010 Ctrl Delay	64.1
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

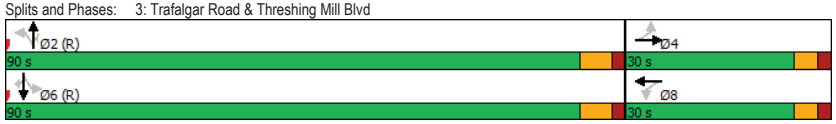
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	0	51	92	30	237	63	1831	136	84	1689	34
Future Volume (vph)	21	0	51	92	30	237	63	1831	136	84	1689	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.868				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3008	0	1410	3020	0	1770	4262	1404	1671	4262	1583
Flt Permitted	0.451			0.719			0.081			0.065		
Satd. Flow (perm)	840	3008	0	1067	3020	0	151	4262	1404	114	4262	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			26				116			33
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		175.7			120.2			286.4			537.5	
Travel Time (s)		12.7			8.7			12.9			24.2	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Heavy Vehicles (%)	2%	2%	2%	28%	2%	4%	2%	7%	15%	8%	7%	2%
Adj. Flow (vph)	23	0	55	96	33	247	68	1907	142	88	1759	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	55	0	96	280	0	68	1907	142	88	1759	37
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		41.6	41.6	41.6	41.6	41.6	41.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0					0	0	0	0	0	0
Act Effct Green (s)	16.7	16.7		16.7	16.7		91.2	91.2	91.2	91.2	91.2	91.2
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.76	0.76	0.76	0.76	0.76	0.76
v/c Ratio	0.20	0.12		0.65	1.04dr		0.60	0.59	0.13	1.02	0.54	0.03
Control Delay	47.4	20.2		68.1	50.1		25.4	3.0	0.3	118.3	6.1	2.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.4	20.2		68.1	50.1		25.4	3.0	0.3	118.3	6.1	2.6
LOS	D	C		E	D		C	A	A	F	A	A
Approach Delay		28.2			54.7			3.5			11.3	
Approach LOS		C			D			A			B	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 20.4 (17%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 11.6 Intersection LOS: B
Intersection Capacity Utilization 84.9% ICU Level of Service E
Analysis Period (min) 15
* User Entered Value
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 3: Trafalgar Road & Threshing Mill Blvd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	23	55	96	280	68	1907	142	88	1759	37
v/c Ratio	0.20	0.12	0.65	1.04dr	0.60	0.59	0.13	1.02	0.54	0.03
Control Delay	47.4	20.2	68.1	50.1	25.4	3.0	0.3	118.3	6.1	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.4	20.2	68.1	50.1	25.4	3.0	0.3	118.3	6.1	2.6
Queue Length 50th (m)	5.1	2.2	23.0	31.8	2.0	23.0	0.2	~23.5	53.4	0.6
Queue Length 95th (m)	12.8	8.0	39.5	43.6	m#30.0	26.4	0.4	#61.5	92.4	m4.3
Internal Link Dist (m)		151.7		96.2		262.4			513.5	
Turn Bay Length (m)	25.0		25.0		75.0		45.0	65.0		45.0
Base Capacity (vph)	171	642	217	637	114	3240	1095	86	3240	1211
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.09	0.44	0.44	0.60	0.59	0.13	1.02	0.54	0.03

Intersection Summary

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	0	51	92	30	237	63	1831	136	84	1689	34
Future Volume (veh/h)	21	0	51	92	30	237	63	1831	136	84	1689	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1484	1831	1900	1863	1776	1652	1759	1776	1863
Adj Flow Rate, veh/h	23	0	55	96	33	247	68	1907	142	88	1759	37
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	2	2	2	28	2	4	2	7	15	8	7	2
Cap, veh/h	101	337	302	233	331	296	171	3020	995	197	3020	1122
Arrive On Green	0.19	0.00	0.19	0.19	0.19	0.19	1.00	1.00	1.00	0.47	0.47	0.47
Sat Flow, veh/h	1095	1770	1583	1070	1740	1556	271	4262	1404	193	4262	1583
Grp Volume(v), veh/h	23	0	55	96	33	247	68	1907	142	88	1759	37
Grp Sat Flow(s),veh/h/ln	1095	1770	1583	1070	1740	1556	271	1421	1404	193	1421	1583
Q Serve(g_s), s	2.5	0.0	3.5	9.9	1.9	18.3	19.7	0.0	0.0	41.4	36.0	1.5
Cycle Q Clear(g_c), s	20.8	0.0	3.5	13.4	1.9	18.3	55.6	0.0	0.0	41.4	36.0	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	101	337	302	233	331	296	171	3020	995	197	3020	1122
V/C Ratio(X)	0.23	0.00	0.18	0.41	0.10	0.83	0.40	0.63	0.14	0.45	0.58	0.03
Avail Cap(c_a), veh/h	116	361	323	247	355	318	171	3020	995	197	3020	1122
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.74	0.74	0.74	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.8	0.0	40.7	46.4	40.1	46.7	11.8	0.0	0.0	20.0	18.6	9.6
Incr Delay (d2), s/veh	1.1	0.0	0.3	1.2	0.1	16.2	5.1	0.8	0.2	7.2	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.6	3.0	0.9	9.2	1.7	0.2	0.1	2.6	14.3	0.7
LnGrp Delay(d),s/veh	57.9	0.0	41.0	47.5	40.2	63.0	16.8	0.8	0.2	27.2	19.4	9.6
LnGrp LOS	E		D	D	D	E	B	A	A	C	B	A
Approach Vol, veh/h		78			376			2117			1884	
Approach Delay, s/veh		46.0			57.0			1.2			19.6	
Approach LOS		D			E			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		91.6		28.4		91.6		28.4
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		57.6		22.8		43.4		20.3
Green Ext Time (p_c), s		24.2		0.0		35.6		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.5
HCM 2010 LOS	B

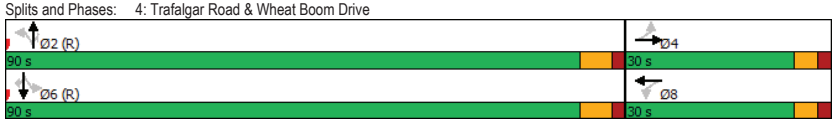
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	14	118	0	158	0	1865	136	110	1764	0
Future Volume (vph)	0	0	14	118	0	158	0	1865	136	110	1764	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3008	0	1327	2379	0	1863	4343	1292	1556	4262	1863
Flt Permitted				0.747						0.054		
Satd. Flow (perm)	1863	3008	0	1044	2379	0	1863	4343	1292	88	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33			33				114			
Link Speed (k/h)		50			50			60			80	
Link Distance (m)		170.2			342.3			409.5			286.4	
Travel Time (s)		12.3			24.6			24.6			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Heavy Vehicles (%)	2%	2%	2%	36%	2%	29%	2%	5%	25%	16%	7%	2%
Adj. Flow (vph)	0	0	15	127	0	170	0	2005	146	118	1897	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	127	170	0	0	2005	146	118	1897	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0			
Pedestrian Calls (#/hr)	0	0					0	0	0			
Act Effct Green (s)		18.9		18.9	18.9			89.0	89.0	89.0	89.0	
Actuated g/C Ratio		0.16		0.16	0.16			0.74	0.74	0.74	0.74	
v/c Ratio		0.03		0.77	0.42			0.62	0.15	1.82	0.60	
Control Delay		4.1		76.8	38.5			9.2	2.0	433.9	4.4	
Queue Delay		0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay		4.1		76.8	38.5			9.2	2.0	433.9	4.4	
LOS		A		E	D			A	A	F	A	
Approach Delay		4.1			54.9			8.7			29.6	
Approach LOS		A			D			A			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 13.2 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.82			
Intersection Signal Delay: 21.1		Intersection LOS: C	
Intersection Capacity Utilization 81.5%		ICU Level of Service D	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	15	127	170	2005	146	118	1897
v/c Ratio	0.03	0.77	0.42	0.62	0.15	1.82	0.60
Control Delay	4.1	76.8	38.5	9.2	2.0	433.9	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.1	76.8	38.5	9.2	2.0	433.9	4.4
Queue Length 50th (m)	0.0	30.3	16.0	89.3	1.9	~43.9	34.0
Queue Length 95th (m)	1.2	51.0	26.1	122.7	8.7	#84.5	40.5
Internal Link Dist (m)	146.2		318.3	385.5			262.4
Turn Bay Length (m)		25.0			45.0	65.0	
Base Capacity (vph)	640	213	511	3219	987	65	3159
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.60	0.33	0.62	0.15	1.82	0.60

Intersection Summary
~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	14	118	0	158	0	1865	136	110	1764	0
Future Volume (veh/h)	0	0	14	118	0	158	0	1865	136	110	1764	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1397	1473	1900	1863	1810	1520	1638	1776	1863
Adj Flow Rate, veh/h	0	0	15	127	0	170	0	2005	146	118	1897	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Percent Heavy Veh, %	2	2	2	36	2	29	2	5	25	16	7	2
Cap, veh/h	60	279	250	217	221	198	60	3219	958	144	3159	1174
Arrive On Green	0.00	0.00	0.16	0.16	0.00	0.16	0.00	0.74	0.74	1.00	1.00	0.00
Sat Flow, veh/h	1210	1770	1583	1045	1399	1252	237	4343	1292	163	4262	1583
Grp Volume(v), veh/h	0	0	15	127	0	170	0	2005	146	118	1897	0
Grp Sat Flow(s),veh/h/ln	1210	1770	1583	1045	1399	1252	237	1448	1292	163	1421	1583
Q Serve(g_s), s	0.0	0.0	1.0	14.1	0.0	15.9	0.0	26.6	4.0	62.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.0	15.1	0.0	15.9	0.0	26.6	4.0	89.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	279	250	217	221	198	60	3219	958	144	3159	1174
V/C Ratio(X)	0.00	0.00	0.06	0.59	0.00	0.86	0.00	0.62	0.15	0.82	0.60	0.00
Avail Cap(c_a), veh/h	116	361	323	265	286	256	60	3219	958	144	3159	1174
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.82	0.82	0.00
Uniform Delay (d), s/veh	0.0	0.0	43.0	49.4	0.0	49.2	0.0	7.5	4.5	22.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	2.5	0.0	20.1	0.0	0.9	0.3	32.6	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.4	4.2	0.0	6.6	0.0	10.7	1.5	5.2	0.2	0.0
LnGrp Delay(d),s/veh	0.0	0.0	43.1	51.9	0.0	69.4	0.0	8.4	4.9	54.8	0.7	0.0
LnGrp LOS			D	D		E		A	A	D	A	
Approach Vol, veh/h		15			297			2151			2015	
Approach Delay, s/veh		43.1			61.9			8.1			3.9	
Approach LOS		D			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		95.6		24.4		95.6		24.4
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		28.6		3.0		91.0		17.9
Green Ext Time (p_c), s		34.4		0.0		0.0		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	9.9
HCM 2010 LOS	A

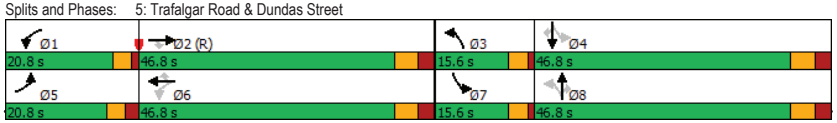
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	535	1644	258	249	2161	142	320	1369	268	330	1045	494
Future Volume (vph)	535	1644	258	249	2161	142	320	1369	268	330	1045	494
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98				1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	4343	1538	1736	4343	1524
Flt Permitted	0.950			0.099			0.099			0.099		
Satd. Flow (perm)	3400	5085	1557	176	4715	1292	181	4343	1538	181	4343	1497
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			225			105			172			259
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	546	1678	263	254	2205	145	327	1397	273	337	1066	504
Shared Lane Traffic (%)												
Lane Group Flow (vph)	546	1678	263	254	2205	145	327	1397	273	337	1066	504
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5	16.5	11.0	16.5	16.5
Total Split (s)	20.8	46.8	46.8	20.8	46.8	46.8	15.6	46.8	46.8	15.6	46.8	46.8
Total Split (%)	16.0%	36.0%	36.0%	16.0%	36.0%	36.0%	12.0%	36.0%	36.0%	12.0%	36.0%	36.0%
Maximum Green (s)	15.8	40.4	40.4	16.8	40.4	40.4	11.6	40.3	40.3	11.6	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	15.8	40.6	40.6	59.4	40.4	40.4	54.4	40.3	40.3	54.4	40.3	40.3
Actuated g/C Ratio	0.12	0.31	0.31	0.46	0.31	0.31	0.42	0.31	0.31	0.42	0.31	0.31
v/c Ratio	1.32	1.06	0.41	0.93	1.51	0.31	1.53	1.04	0.46	1.57	0.79	0.79
Control Delay	204.7	82.7	8.8	63.3	258.0	12.9	287.0	78.6	15.7	306.6	46.2	29.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	204.7	82.7	8.8	63.3	258.0	12.9	287.0	78.6	15.7	306.6	46.2	29.1
LOS	F	F	A	E	F	B	F	E	B	F	D	C
Approach Delay		101.6			225.4			104.1			87.7	
Approach LOS		F			F			F			F	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 40.3 (31%), Referenced to phase 2:EBT, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.57			
Intersection Signal Delay: 135.1		Intersection LOS: F	
Intersection Capacity Utilization 120.0%		ICU Level of Service H	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 5: Trafalgar Road & Dundas Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	546	1678	263	254	2205	145	327	1397	273	337	1066	504
v/c Ratio	1.32	1.06	0.41	0.93	1.51	0.31	1.53	1.04	0.46	1.57	0.79	0.79
Control Delay	204.7	82.7	8.8	63.3	258.0	12.9	287.0	78.6	15.7	306.6	46.2	29.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	204.7	82.7	8.8	63.3	258.0	12.9	287.0	78.6	15.7	306.6	46.2	29.1
Queue Length 50th (m)	~97.9	~182.1	7.3	57.8	~298.7	9.2	~106.9	~168.9	20.1	~112.6	109.5	63.6
Queue Length 95th (m)	#134.6	#213.4	29.5	m55.2	m#273.6	m8.7	#168.9	#204.4	46.6	#174.6	130.6	112.3
Internal Link Dist (m)		530.9			391.5			307.2			385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Base Capacity (vph)	413	1586	640	275	1465	473	214	1346	595	214	1346	642
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.32	1.06	0.41	0.92	1.51	0.31	1.53	1.04	0.46	1.57	0.79	0.79

Intersection Summary	
~	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.
m	Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	535	1644	258	249	2161	142	320	1369	268	330	1045	494
Future Volume (veh/h)	535	1644	258	249	2161	142	320	1369	268	330	1045	494
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1810	1827	1810	1792
Adj Flow Rate, veh/h	546	1678	263	254	2205	145	327	1397	273	337	1066	504
Adj No. of Lanes	2	3	1	1	3	1	1	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	414	1580	490	274	1465	400	238	1346	475	211	1346	470
Arrive On Green	0.12	0.31	0.31	0.13	0.31	0.31	0.09	0.31	0.31	0.09	0.31	0.31
Sat Flow, veh/h	3408	5085	1577	1691	4715	1287	1740	4343	1531	1740	4343	1516
Grp Volume(v), veh/h	546	1678	263	254	2205	145	327	1397	273	337	1066	504
Grp Sat Flow(s),veh/h/ln	1704	1695	1577	1691	1572	1287	1740	1448	1531	1740	1448	1516
Q Serve(g_s), s	15.8	40.4	17.9	15.0	40.4	11.4	11.6	40.3	19.5	11.6	29.2	40.3
Cycle Q Clear(g_c), s	15.8	40.4	17.9	15.0	40.4	11.4	11.6	40.3	19.5	11.6	29.2	40.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	414	1580	490	274	1465	400	238	1346	475	211	1346	470
V/C Ratio(X)	1.32	1.06	0.54	0.93	1.50	0.36	1.37	1.04	0.58	1.60	0.79	1.07
Avail Cap(c_a), veh/h	414	1580	490	274	1465	400	238	1346	475	211	1346	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.1	44.8	37.1	38.3	44.8	34.8	34.3	44.8	37.7	37.1	41.0	44.8
Incr Delay (d2), s/veh	159.3	41.1	4.2	35.7	230.7	1.5	192.7	34.9	1.9	291.1	3.4	62.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.6	24.9	8.4	11.8	48.8	4.2	21.6	20.4	8.4	24.6	12.1	25.0
LnGrp Delay(d),s/veh	216.4	85.9	41.2	74.0	275.5	36.3	226.9	79.7	39.6	328.2	44.4	107.1
LnGrp LOS	F	F	D	E	F	D	F	F	D	F	D	F
Approach Vol, veh/h		2487			2604			1997			1907	
Approach Delay, s/veh		109.8			242.5			98.3			111.1	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.8	46.8	15.6	46.8	20.8	46.8	15.6	46.8
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	16.8	40.4	11.6	40.3	15.8	40.4	11.6	40.3
Max Q Clear Time (g_c+I1), s	17.0	42.4	13.6	42.3	17.8	42.4	13.6	42.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	146.0
HCM 2010 LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	1829	69	299	2423	164	129	92	157	126	63	51
Future Volume (vph)	75	1829	69	299	2423	164	129	92	157	126	63	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor			0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.933	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3213	0
Flt Permitted	0.078			0.072			0.675			0.694		
Satd. Flow (perm)	142	4940	1470	134	4673	1281	1225	1900	1577	1303	3213	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			104			118			167		54	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	80	1946	73	318	2578	174	137	98	167	134	67	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	80	1946	73	318	2578	174	137	98	167	134	121	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	11.0	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	11.7	57.2	57.2	26.0	71.5	71.5	46.8	46.8	46.8	46.8	46.8	
Total Split (%)	9.0%	44.0%	44.0%	20.0%	55.0%	55.0%	36.0%	36.0%	36.0%	36.0%	36.0%	
Maximum Green (s)	7.7	50.4	50.4	22.0	64.7	64.7	39.4	39.4	39.4	39.4	39.4	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)		24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	61.7	51.5	51.5	79.2	67.2	67.2	39.4	39.4	39.4	39.4	39.4	
Actuated g/C Ratio	0.47	0.40	0.40	0.61	0.52	0.52	0.30	0.30	0.30	0.30	0.30	
v/c Ratio	0.51	1.00	0.11	0.92	1.07	0.24	0.37	0.17	0.28	0.34	0.12	
Control Delay	29.7	41.2	5.6	69.0	71.0	7.3	39.1	34.3	6.1	38.2	18.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	29.7	41.2	5.6	69.0	71.0	7.3	39.1	34.3	6.1	38.2	18.7	
LOS	C	D	A	E	E	A	D	C	A	D	B	
Approach Delay		39.5			67.2			24.2			29.0	
Approach LOS		D			E			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 36.4 (28%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.07			
Intersection Signal Delay: 52.6		Intersection LOS: D	
Intersection Capacity Utilization 100.3%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 6: Postridge Drive & Dundas Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	80	1946	73	318	2578	174	137	98	167	134	121
v/c Ratio	0.51	1.00	0.11	0.92	1.07	0.24	0.37	0.17	0.28	0.34	0.12
Control Delay	29.7	41.2	5.6	69.0	71.0	7.3	39.1	34.3	6.1	38.2	18.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.7	41.2	5.6	69.0	71.0	7.3	39.1	34.3	6.1	38.2	18.7
Queue Length 50th (m)	12.7	~112.0	1.6	67.1	~290.4	7.7	29.0	19.4	0.0	28.1	6.7
Queue Length 95th (m)	m12.4	m100.1	m1.6	#121.2	#318.7	21.4	48.7	34.2	16.7	47.4	14.5
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	161	1955	644	358	2414	718	371	575	594	394	1011
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	1.00	0.11	0.89	1.07	0.24	0.37	0.17	0.28	0.34	0.12

Intersection Summary	
~	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.
m	Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	1829	69	299	2423	164	129	92	157	126	63	51
Future Volume (veh/h)	75	1829	69	299	2423	164	129	92	157	126	63	51
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1829	1900
Adj Flow Rate, veh/h	80	1946	73	318	2578	174	137	98	167	134	67	54
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	144	1953	588	342	2365	663	394	576	481	351	581	422
Arrive On Green	0.05	0.40	0.40	0.16	0.51	0.51	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1740	4940	1488	1774	4673	1310	1233	1900	1586	1115	1916	1392
Grp Volume(v), veh/h	80	1946	73	318	2578	174	137	98	167	134	60	61
Grp Sat Flow(s),veh/h/ln	1740	1647	1488	1774	1558	1310	1233	1900	1586	1115	1737	1570
Q Serve(g_s), s	3.5	51.1	4.1	18.8	65.8	9.8	11.8	4.9	10.7	13.0	3.2	3.7
Cycle Q Clear(g_c), s	3.5	51.1	4.1	18.8	65.8	9.8	15.4	4.9	10.7	18.0	3.2	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.89
Lane Grp Cap(c), veh/h	144	1953	588	342	2365	663	394	576	481	351	527	476
V/C Ratio(X)	0.56	1.00	0.12	0.93	1.09	0.26	0.35	0.17	0.35	0.38	0.11	0.13
Avail Cap(c_a), veh/h	158	1953	588	356	2365	663	394	576	481	351	527	476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	39.2	25.0	42.2	32.1	18.3	38.4	33.3	35.3	39.9	32.7	32.8
Incr Delay (d2), s/veh	3.4	19.5	0.4	29.6	48.3	1.0	2.4	0.6	2.0	3.1	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	26.8	1.7	14.0	38.8	3.7	4.3	2.7	4.9	4.3	1.6	1.7
LnGrp Delay(d),s/veh	34.5	58.7	25.4	71.8	80.4	19.3	40.9	33.9	37.3	43.0	33.1	33.4
LnGrp LOS	C	E	C	E	F	B	D	C	D	D	C	C
Approach Vol, veh/h		2099			3070			402			255	
Approach Delay, s/veh		56.6			76.0			37.7			38.4	
Approach LOS		E			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	25.0	58.2		46.8	10.6	72.6		46.8
Change Period (Y+Rc), s	4.0	6.8		* 7.4	4.0	6.8		* 7.4
Max Green Setting (Gmax), s	22.0	50.4		* 39	7.7	64.7		* 39
Max Q Clear Time (g_c+I1), s	20.8	53.1		17.4	5.5	67.8		20.0
Green Ext Time (p_c), s	0.2	0.0		2.2	0.0	0.0		1.5

Intersection Summary		
HCM 2010 Ctrl Delay		64.7
HCM 2010 LOS		E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	159	102	244	54	72	160
Future Volume (vph)	159	102	244	54	72	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.976			0.850
Flt Protected		0.970			0.950	
Satd. Flow (prot)	0	1573	1740	0	1671	1482
Flt Permitted		0.970			0.950	
Satd. Flow (perm)	0	1573	1740	0	1671	1482
Link Speed (k/h)		50	50		50	
Link Distance (m)		120.2	260.2		319.6	
Travel Time (s)		8.7	18.7		23.0	
Confl. Peds. (#/hr)					4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	25%	5%	8%	0%	8%	9%
Adj. Flow (vph)	181	116	277	61	82	182
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	297	338	0	82	182
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	159	102	244	54	72	160
Future Vol, veh/h	159	102	244	54	72	160
Conflicting Peds, #/hr	0	0	0	0	4	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	25	5	8	0	8	9
Mvmt Flow	181	116	277	61	82	182

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	338	0	-	0	790	308
Stage 1	-	-	-	-	308	-
Stage 2	-	-	-	-	482	-
Critical Hdwy	4.35	-	-	-	6.48	6.29
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.425	-	-	-	3.572	3.381
Pot Cap-1 Maneuver	1103	-	-	-	351	716
Stage 1	-	-	-	-	732	-
Stage 2	-	-	-	-	609	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1103	-	-	-	290	716
Mov Cap-2 Maneuver	-	-	-	-	290	-
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	609	-

Approach	EB	WB	SB
HCM Control Delay, s	5.4	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1103	-	-	-	290	716
HCM Lane V/C Ratio	0.164	-	-	-	0.282	0.254
HCM Control Delay (s)	8.9	0	-	-	22.2	11.7
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q(veh)	0.6	-	-	-	1.1	1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	25	0	46	0	2047	40	89	1837	0
Future Volume (vph)	0	0	0	25	0	46	0	2047	40	89	1837	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt					0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3539	0	1770	3008	0	1863	4471	1583	1770	4471	1863
Flt Permitted				0.757						0.046		
Satd. Flow (perm)	1863	3539	0	1410	3008	0	1863	4471	1583	86	4471	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					33				30			
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		94.5			82.6			537.5			902.9	
Travel Time (s)		6.8			5.9			24.2			40.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	27	0	50	0	2225	43	97	1997	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	27	50	0	0	2225	43	97	1997	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5		23.5	23.5		24.6	24.6	24.6	24.6	24.6	24.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	0
Act Effct Green (s)				7.9	7.9			103.6	103.6	103.6	103.6	
Actuated g/C Ratio				0.07	0.07			0.86	0.86	0.86	0.86	
v/c Ratio				0.29	0.22			0.58	0.03	1.31	0.52	
Control Delay				60.8	27.1			5.0	1.9	187.6	2.6	
Queue Delay				0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay				60.8	27.1			5.0	1.9	187.6	2.6	
LOS				E	C			A	A	F	A	
Approach Delay					38.9			4.9			11.2	
Approach LOS					D			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 105 (88%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.31			
Intersection Signal Delay: 8.5		Intersection LOS: A	
Intersection Capacity Utilization 64.2%		ICU Level of Service C	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 8: Trafalgar Road & New Road A

Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	27	50	2225	43	97	1997
v/c Ratio	0.29	0.22	0.58	0.03	1.31	0.52
Control Delay	60.8	27.1	5.0	1.9	187.6	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.8	27.1	5.0	1.9	187.6	2.6
Queue Length 50th (m)	6.5	2.1	55.7	0.6	~31.8	32.7
Queue Length 95th (m)	16.2	8.6	119.3	m3.4	m#39.2	m58.2
Internal Link Dist (m)		58.6	513.5			878.9
Turn Bay Length (m)	25.0			45.0	65.0	
Base Capacity (vph)	287	640	3858	1370	74	3858
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.08	0.58	0.03	1.31	0.52

Intersection Summary

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	25	0	46	0	2047	40	89	1837	0
Future Volume (veh/h)	0	0	0	25	0	46	0	2047	40	89	1837	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	0	0	0	27	0	50	0	2225	43	97	1997	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	165	0	143	82	74	60	3812	1350	200	3812	1350
Arrive On Green	0.00	0.00	0.00	0.05	0.00	0.05	0.00	1.00	1.00	1.00	1.00	0.00
Sat Flow, veh/h	1349	3632	0	1774	1770	1583	215	4471	1583	165	4471	1583
Grp Volume(v), veh/h	0	0	0	27	0	50	0	2225	43	97	1997	0
Grp Sat Flow(s),veh/h/ln	1349	1770	0	1774	1770	1583	215	1490	1583	165	1490	1583
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.8	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	165	0	143	82	74	60	3812	1350	200	3812	1350
V/C Ratio(X)	0.00	0.00	0.00	0.19	0.00	0.68	0.00	0.58	0.03	0.48	0.52	0.00
Avail Cap(c_a), veh/h	273	723	0	422	361	323	60	3812	1350	200	3812	1350
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	55.4	0.0	56.3	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.6	0.0	10.4	0.0	0.7	0.0	8.1	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.9	0.0	1.9	0.0	0.2	0.0	0.5	0.2	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	56.0	0.0	66.7	0.0	0.7	0.0	8.1	0.5	0.0
LnGrp LOS				E		E		A	A	A	A	
Approach Vol, veh/h		0			77			2268			2094	
Approach Delay, s/veh		0.0			63.0			0.6			0.9	
Approach LOS					E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		108.9		11.1		108.9		11.1
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		2.0		0.0		2.0		5.7
Green Ext Time (p_c), s		48.5		0.0		53.0		0.3

Intersection Summary

HCM 2010 Ctrl Delay	1.8
HCM 2010 LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	72	57	8	41	0	30	0	8	0	0	0
Future Volume (vph)	0	72	57	8	41	0	30	0	8	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.940						0.968				
Flt Protected					0.992			0.962				
Satd. Flow (prot)	0	1751	0	0	1848	0	0	3296	0	0	3539	0
Flt Permitted					0.992			0.962				
Satd. Flow (perm)	0	1751	0	0	1848	0	0	3296	0	0	3539	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		41.7			205.9			80.1			70.6	
Travel Time (s)		3.0			14.8			5.8			5.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	78	62	9	45	0	33	0	9	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	140	0	0	54	0	0	42	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
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)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	72	57	8	41	0	30	0	8	0	0	0
Future Vol, veh/h	0	72	57	8	41	0	30	0	8	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	78	62	9	45	0	33	0	9	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	45	0	0	140	0	0	172	172	109	177	203	45
Stage 1	-	-	-	-	-	-	109	109	-	63	63	-
Stage 2	-	-	-	-	-	-	63	63	-	114	140	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1563	-	-	1443	-	-	791	721	945	785	693	1025
Stage 1	-	-	-	-	-	-	896	805	-	948	842	-
Stage 2	-	-	-	-	-	-	948	842	-	891	781	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1563	-	-	1443	-	-	787	717	945	774	689	1025
Mov Cap-2 Maneuver	-	-	-	-	-	-	787	717	-	774	689	-
Stage 1	-	-	-	-	-	-	896	805	-	948	837	-
Stage 2	-	-	-	-	-	-	942	837	-	883	781	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.2	9.6	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	787	945	1563	-	-	1443	-	-	-	-
HCM Lane V/C Ratio	0.041	0.009	-	-	-	0.006	-	-	-	-
HCM Control Delay (s)	9.8	8.8	0	-	-	7.5	0	-	0	0
HCM Lane LOS	A	A	A	-	-	A	A	-	A	A
HCM 95th %tile Q(veh)	0.1	0	0	-	-	0	-	-	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	30	56	84	8	8	57
Future Volume (vph)	30	56	84	8	8	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.912				0.869	
Flt Protected	0.983			0.956		
Satd. Flow (prot)	1670	0	0	3383	3076	0
Flt Permitted	0.983			0.956		
Satd. Flow (perm)	1670	0	0	3383	3076	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	51.6			89.3	74.2	
Travel Time (s)	3.7			6.4	5.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	61	91	9	9	62
Shared Lane Traffic (%)						
Lane Group Flow (vph)	94	0	0	100	71	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	23.1%	ICU Level of Service	A
Analysis Period (min)	15		

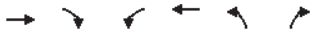
Intersection	
Int Delay, s/veh	6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	56	84	8	8	57
Future Vol, veh/h	30	56	84	8	8	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	61	91	9	9	62

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	227	36	71	0	-	0
Stage 1	40	-	-	-	-	-
Stage 2	187	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	741	1029	1527	-	-	-
Stage 1	977	-	-	-	-	-
Stage 2	826	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	697	1029	1527	-	-	-
Mov Cap-2 Maneuver	697	-	-	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	826	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	6.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1527	-	882	-	-
HCM Lane V/C Ratio	0.06	-	0.106	-	-
HCM Control Delay (s)	7.5	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	-	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	80	0	0	49	0
Future Volume (vph)	0	80	0	0	49	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected					0.950	
Satd. Flow (prot)	1611	0	0	1863	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	1611	0	0	1863	1770	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	205.9			49.4	119.6	
Travel Time (s)	14.8			3.6	8.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	87	0	0	53	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	87	0	0	0	53	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	15.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	80	0	0	49	0
Future Vol, veh/h	0	80	0	0	49	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	87	0	0	53	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	87	0	45	44
Stage 1	-	-	-	-	44	-
Stage 2	-	-	-	-	1	-
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	-	965	1026
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1509	-	965	1026
Mov Cap-2 Maneuver	-	-	-	-	965	-
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	965	-	-	1509	-
HCM Lane V/C Ratio	0.055	-	-	-	-
HCM Control Delay (s)	8.9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

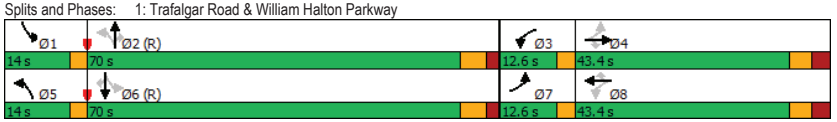
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	360	661	235	171	1068	49	395	1627	111	278	1089	157
Future Volume (vph)	360	661	235	171	1068	49	395	1627	111	278	1089	157
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4262	1553	1687	4515	1429
Flt Permitted	0.110			0.190			0.140			0.063		
Satd. Flow (perm)	195	3610	1583	361	3374	1553	266	4262	1553	112	4515	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			192			77			78			162
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	371	681	242	176	1101	51	407	1677	114	287	1123	162
Shared Lane Traffic (%)												
Lane Group Flow (vph)	371	681	242	176	1101	51	407	1677	114	287	1123	162
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	12.6	43.4	43.4	12.6	43.4	43.4	14.0	70.0	70.0	14.0	70.0	70.0
Total Split (%)	9.0%	31.0%	31.0%	9.0%	31.0%	31.0%	10.0%	50.0%	50.0%	10.0%	50.0%	50.0%
Maximum Green (s)	9.6	36.4	36.4	9.6	36.4	36.4	11.0	63.1	63.1	11.0	63.1	63.1
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	50.0	36.4	36.4	50.0	36.4	36.4	78.0	63.1	63.1	78.0	63.1	63.1
Actuated g/C Ratio	0.36	0.26	0.26	0.36	0.26	0.26	0.56	0.45	0.45	0.56	0.45	0.45
v/c Ratio	2.17	0.73	0.44	0.78	1.26	0.11	1.51	0.87	0.15	1.54	0.55	0.22
Control Delay	566.6	52.5	12.9	55.1	166.8	3.5	270.5	41.1	8.8	298.2	29.4	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	566.6	52.5	12.9	55.1	166.8	3.5	270.5	41.1	8.8	298.2	29.4	3.9
LOS	F	D	B	E	F	A	F	D	A	F	C	A
Approach Delay		192.5			145.7			81.9			75.8	
Approach LOS		F			F			F			E	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.17
Intersection Signal Delay: 116.1 Intersection LOS: F
Intersection Capacity Utilization 114.6% ICU Level of Service H
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 1: Trafalgar Road & William Halton Parkway



Queues
1: Trafalgar Road & William Halton Parkway

Future Total 10 Year
AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	371	681	242	176	1101	51	407	1677	114	287	1123	162
v/c Ratio	2.17	0.73	0.44	0.78	1.26	0.11	1.51	0.87	0.15	1.54	0.55	0.22
Control Delay	566.6	52.5	12.9	55.1	166.8	3.5	270.5	41.1	8.8	298.2	29.4	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	566.6	52.5	12.9	55.1	166.8	3.5	270.5	41.1	8.8	298.2	29.4	3.9
Queue Length 50th (m)	~156.6	95.7	11.2	35.1	~210.7	0.0	~126.4	181.5	5.8	~101.5	98.1	0.0
Queue Length 95th (m)	#222.8	119.1	36.1	#54.9	#255.0	5.1	#194.4	208.0	17.7	#161.6	115.1	13.2
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	171	938	553	227	877	460	269	1920	742	186	2034	733
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.17	0.73	0.44	0.78	1.26	0.11	1.51	0.87	0.15	1.54	0.55	0.22

Intersection Summary

~ 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.

HCM 2010 Signalized Intersection Summary
1: Trafalgar Road & William Halton Parkway

Future Total 10 Year
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	360	661	235	171	1068	49	395	1627	111	278	1089	157
Future Volume (veh/h)	360	661	235	171	1068	49	395	1627	111	278	1089	157
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	371	681	242	176	1101	51	407	1677	114	287	1123	162
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	167	939	412	230	877	404	311	1921	700	208	2035	644
Arrive On Green	0.07	0.26	0.26	0.07	0.26	0.26	0.08	0.45	0.45	0.08	0.45	0.45
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4262	1553	1691	4515	1429
Grp Volume(v), veh/h	371	681	242	176	1101	51	407	1677	114	287	1123	162
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1421	1553	1691	1505	1429
Q Serve(g_s), s	9.6	24.1	18.7	9.6	36.4	3.5	11.0	49.9	6.1	11.0	25.5	9.8
Cycle Q Clear(g_c), s	9.6	24.1	18.7	9.6	36.4	3.5	11.0	49.9	6.1	11.0	25.5	9.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	939	412	230	877	404	311	1921	700	208	2035	644
V/C Ratio(X)	2.22	0.73	0.59	0.77	1.26	0.13	1.31	0.87	0.16	1.38	0.55	0.25
Avail Cap(c_a), veh/h	167	939	412	230	877	404	311	1921	700	208	2035	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	47.2	45.2	39.1	51.8	39.6	31.5	34.8	22.8	38.0	28.1	23.8
Incr Delay (d2), s/veh	566.3	3.5	3.4	14.3	124.1	0.3	160.1	5.8	0.5	198.2	1.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	28.3	12.5	8.6	2.9	32.1	1.5	20.4	20.6	2.7	19.5	10.8	4.0
LnGrp Delay(d),s/veh	607.8	50.7	48.7	53.4	175.9	39.9	191.7	40.7	23.3	236.2	29.2	24.8
LnGrp LOS	F	D	D	D	F	D	F	D	C	F	C	C
Approach Vol, veh/h		1294			1328			2198			1572	
Approach Delay, s/veh		210.0			154.5			67.7			66.5	
Approach LOS		F			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	70.0	12.6	43.4	14.0	70.0	12.6	43.4
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	11.0	* 63	9.6	36.4	11.0	* 63	9.6	36.4
Max Q Clear Time (g_c+I1), s	13.0	51.9	11.6	26.1	13.0	27.5	11.6	38.4
Green Ext Time (p_c), s	0.0	10.4	0.0	6.6	0.0	21.7	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	114.3
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

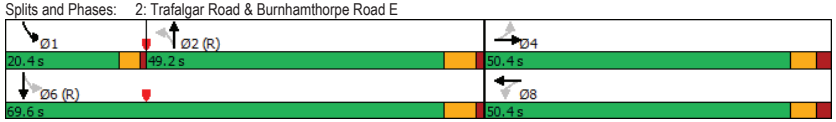
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	189	303	79	319	174	123	87	1648	120	149	1182	142
Future Volume (vph)	189	303	79	319	174	123	87	1648	120	149	1182	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.80	*0.80	1.00	*0.80	*0.80
Frt		0.969			0.938			0.990			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1790	0	1805	1741	0	1770	4201	0	1805	4175	0
Flt Permitted	0.427			0.319			0.117			0.077		
Satd. Flow (perm)	788	1790	0	606	1741	0	218	4201	0	146	4175	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			34			9			22	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	208	333	87	351	191	135	96	1811	132	164	1299	156
Shared Lane Traffic (%)												
Lane Group Flow (vph)	208	420	0	351	326	0	96	1943	0	164	1455	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		7.0	20.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		26.0	26.0		11.0	26.0	
Total Split (s)	50.4	50.4		50.4	50.4		49.2	49.2		20.4	69.6	
Total Split (%)	42.0%	42.0%		42.0%	42.0%		41.0%	41.0%		17.0%	58.0%	
Maximum Green (s)	44.4	44.4		44.4	44.4		43.2	43.2		16.4	63.6	
Yellow Time (s)	3.7	3.7		3.7	3.7		4.6	4.6		3.0	4.6	
All-Red Time (s)	2.3	2.3		2.3	2.3		1.4	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	44.4	44.4		44.4	44.4		47.9	47.9		65.6	63.6	
Actuated g/C Ratio	0.37	0.37		0.37	0.37		0.40	0.40		0.55	0.53	
v/c Ratio	0.71	0.63		1.57	0.49		1.10	1.16		0.68	0.65	
Control Delay	48.1	35.1		304.9	28.9		159.3	108.3		36.6	21.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	48.1	35.1		304.9	28.9		159.3	108.3		36.6	21.7	
LOS	D	D		F	C		F	F		D	C	
Approach Delay		39.4			172.0			110.7			23.2	
Approach LOS		D			F			F			C	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.57
Intersection Signal Delay: 81.5 Intersection LOS: F
Intersection Capacity Utilization 101.1% ICU Level of Service G
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	208	420	351	326	96	1943	164	1455
v/c Ratio	0.71	0.63	1.57	0.49	1.10	1.16	0.68	0.65
Control Delay	48.1	35.1	304.9	28.9	159.3	108.3	36.6	21.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.1	35.1	304.9	28.9	159.3	108.3	36.6	21.7
Queue Length 50th (m)	43.8	82.3	~123.2	55.0	~27.6	~238.6	21.8	102.5
Queue Length 95th (m)	#81.6	118.3	#183.6	83.4	#65.1	#284.2	44.7	121.7
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	291	669	224	665	87	1682	306	2223
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.63	1.57	0.49	1.10	1.16	0.54	0.65

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	303	79	319	174	123	87	1648	120	149	1182	142
Future Volume (veh/h)	189	303	79	319	174	123	87	1648	120	149	1182	142
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1848	1900	1900	1856	1900	1863	1768	1900	1900	1768	1900
Adj Flow Rate, veh/h	208	333	87	351	191	135	96	1811	132	164	1299	156
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	293	523	137	233	375	265	171	1786	130	196	2135	256
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.42	0.42	0.42	0.07	0.53	0.53
Sat Flow, veh/h	1039	1413	369	982	1014	716	364	4235	308	1810	4028	484
Grp Volume(v), veh/h	208	0	420	351	0	326	96	1208	735	164	912	543
Grp Sat Flow(s),veh/h/ln	1039	0	1783	982	0	1730	364	1415	1714	1810	1414	1683
Q Serve(g_s), s	23.3	0.0	23.3	21.1	0.0	17.6	29.8	50.6	50.6	6.7	26.8	26.8
Cycle Q Clear(g_c), s	40.9	0.0	23.3	44.4	0.0	17.6	43.7	50.6	50.6	6.7	26.8	26.8
Prop In Lane	1.00		0.21	1.00		0.41	1.00		0.18	1.00		0.29
Lane Grp Cap(c), veh/h	293	0	660	233	0	640	171	1193	723	196	1499	892
V/C Ratio(X)	0.71	0.00	0.64	1.51	0.00	0.51	0.56	1.01	1.02	0.84	0.61	0.61
Avail Cap(c_a), veh/h	293	0	660	233	0	640	171	1193	723	307	1499	892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	0.0	31.2	52.2	0.0	29.3	39.2	34.7	34.7	31.8	19.6	19.6
Incr Delay (d2), s/veh	7.8	0.0	2.0	249.9	0.0	0.7	12.6	29.3	37.6	11.1	1.8	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	0.0	11.8	23.8	0.0	8.5	3.6	24.6	31.4	5.9	10.8	13.1
LnGrp Delay(d),s/veh	53.0	0.0	33.2	302.1	0.0	30.0	51.8	64.0	72.3	43.0	21.4	22.6
LnGrp LOS	D		C	F		C	D	F	F	D	C	C
Approach Vol, veh/h		628			677			2039			1619	
Approach Delay, s/veh		39.8			171.1			66.4			24.0	
Approach LOS		D			F			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	13.0	56.6		50.4		69.6		50.4
Change Period (Y+Rc), s	4.0	* 6		6.0		* 6		6.0
Max Green Setting (Gmax), s	16.4	* 43		44.4		* 64		44.4
Max Q Clear Time (g_c+I1), s	8.7	52.6		42.9		28.8		46.4
Green Ext Time (p_c), s	0.3	0.0		0.7		24.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	63.5
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

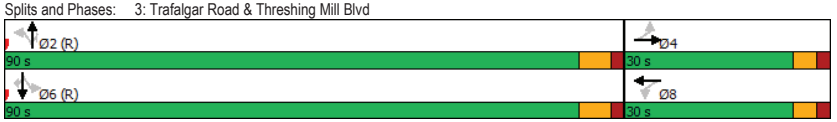
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	6	66	131	5	148	33	1572	64	133	1498	13
Future Volume (vph)	37	6	66	131	5	148	33	1572	64	133	1498	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.863			0.855				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3054	0	1410	2970	0	1770	4262	1404	1671	4262	1583
Flt Permitted	0.651			0.703			0.105			0.094		
Satd. Flow (perm)	1213	3054	0	1044	2970	0	196	4262	1404	165	4262	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		54			46				64			23
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		175.7			120.2			286.4			537.5	
Travel Time (s)		12.7			8.7			12.9			24.2	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Heavy Vehicles (%)	2%	2%	2%	28%	2%	4%	2%	7%	15%	8%	7%	2%
Adj. Flow (vph)	40	7	72	136	5	154	36	1638	67	139	1560	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	79	0	136	159	0	36	1638	67	139	1560	14
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		41.6	41.6	41.6	41.6	41.6	41.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0					0	0	0	0	0	0
Act Effct Green (s)	19.7	19.7		19.7	19.7		88.2	88.2	88.2	88.2	88.2	88.2
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.74	0.74	0.74	0.74	0.74	0.74
v/c Ratio	0.20	0.14		0.80	0.30		0.25	0.52	0.06	1.15	0.50	0.01
Control Delay	43.5	16.8		78.1	31.3		5.8	3.6	0.2	145.5	3.6	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.5	16.8		78.1	31.3		5.8	3.6	0.2	145.5	3.6	0.1
LOS	D	B		E	C		A	A	A	F	A	A
Approach Delay		25.8			52.9			3.5			15.0	
Approach LOS		C			D			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 13.2 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 130			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.15			
Intersection Signal Delay: 13.1		Intersection LOS: B	
Intersection Capacity Utilization 79.7%		ICU Level of Service D	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 3: Trafalgar Road & Threshing Mill Blvd



Queues
3: Trafalgar Road & Threshing Mill Blvd

Future Total 10 Year
AM Peak Hour

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	40	79	136	159	36	1638	67	139	1560	14
v/c Ratio	0.20	0.14	0.80	0.30	0.25	0.52	0.06	1.15	0.50	0.01
Control Delay	43.5	16.8	78.1	31.3	5.8	3.6	0.2	145.5	3.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.5	16.8	78.1	31.3	5.8	3.6	0.2	145.5	3.6	0.1
Queue Length 50th (m)	8.6	2.7	32.4	12.7	0.6	11.4	0.3	~39.5	15.9	0.0
Queue Length 95th (m)	18.6	9.6	#55.7	22.5	m1.4	14.1	0.2	#82.9	17.5	m0.1
Internal Link Dist (m)		151.7		96.2		262.4			513.5	
Turn Bay Length (m)	25.0		25.0		75.0		45.0	65.0		45.0
Base Capacity (vph)	247	666	213	642	144	3131	1048	121	3131	1169
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.12	0.64	0.25	0.25	0.52	0.06	1.15	0.50	0.01

Intersection Summary

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
3: Trafalgar Road & Threshing Mill Blvd

Future Total 10 Year
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	6	66	131	5	148	33	1572	64	133	1498	13
Future Volume (veh/h)	37	6	66	131	5	148	33	1572	64	133	1498	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1484	1828	1900	1863	1776	1652	1759	1776	1863
Adj Flow Rate, veh/h	40	7	72	136	5	154	36	1638	67	139	1560	14
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	2	2	2	28	2	4	2	7	15	8	7	2
Cap, veh/h	179	330	295	215	324	290	291	3037	1001	252	3037	1128
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	1.00	1.00	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1222	1770	1583	1047	1737	1554	325	4262	1404	270	4262	1583
Grp Volume(v), veh/h	40	7	72	136	5	154	36	1638	67	139	1560	14
Grp Sat Flow(s),veh/h/ln	1222	1770	1583	1047	1737	1554	325	1421	1404	270	1421	1583
Q Serve(g_s), s	3.7	0.4	4.7	15.3	0.3	10.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	14.4	0.4	4.7	19.9	0.3	10.7	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	179	330	295	215	324	290	291	3037	1001	252	3037	1128
V/C Ratio(X)	0.22	0.02	0.24	0.63	0.02	0.53	0.12	0.54	0.07	0.55	0.51	0.01
Avail Cap(c_a), veh/h	200	361	323	233	355	317	291	3037	1001	252	3037	1128
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.6	39.9	41.6	50.1	39.8	44.1	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.4	4.9	0.0	1.5	0.7	0.6	0.1	8.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.2	2.1	4.7	0.1	4.7	0.1	0.2	0.0	0.6	0.2	0.0
LnGrp Delay(d),s/veh	51.2	39.9	42.0	54.9	39.8	45.6	0.7	0.6	0.1	8.4	0.6	0.0
LnGrp LOS	D	D	D	D	D	D	A	A	A	A	A	A
Approach Vol, veh/h		119			295			1741			1713	
Approach Delay, s/veh		45.0			49.8			0.6			1.2	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		92.1		27.9		92.1		27.9
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		2.0		16.4		2.0		21.9
Green Ext Time (p_c), s		55.6		0.3		60.2		0.5

Intersection Summary

HCM 2010 Ctrl Delay	6.0
HCM 2010 LOS	A

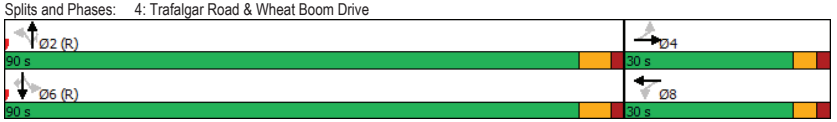
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	19	112	0	137	0	1528	58	42	1809	0
Future Volume (vph)	0	0	19	112	0	137	0	1528	58	42	1809	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3008	0	1327	2379	0	1863	4343	1292	1556	4262	1863
Flt Permitted				0.743						0.094		
Satd. Flow (perm)	1863	3008	0	1038	2379	0	1863	4343	1292	154	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33			46				59			
Link Speed (k/h)		50			50			60			80	
Link Distance (m)		170.2			342.3			409.5			286.4	
Travel Time (s)		12.3			24.6			24.6			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Heavy Vehicles (%)	2%	2%	2%	36%	2%	29%	2%	5%	25%	16%	7%	2%
Adj. Flow (vph)	0	0	21	120	0	147	0	1643	62	45	1945	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	0	120	147	0	0	1643	62	45	1945	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0			
Pedestrian Calls (#/hr)	0	0					0	0	0			
Act Effct Green (s)		18.4		18.4	18.4			89.5	89.5	89.5	89.5	
Actuated g/C Ratio		0.15		0.15	0.15			0.75	0.75	0.75	0.75	
v/c Ratio		0.04		0.75	0.36			0.51	0.06	0.39	0.61	
Control Delay		7.1		75.8	32.1			7.4	1.7	16.6	6.7	
Queue Delay		0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay		7.1		75.8	32.1			7.4	1.7	16.6	6.7	
LOS		A		E	C			A	A	B	A	
Approach Delay		7.1			51.8			7.2			6.9	
Approach LOS		A			D			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 10.1 Intersection LOS: B
Intersection Capacity Utilization 57.9% ICU Level of Service B
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	21	120	147	1643	62	45	1945
v/c Ratio	0.04	0.75	0.36	0.51	0.06	0.39	0.61
Control Delay	7.1	75.8	32.1	7.4	1.7	16.6	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	75.8	32.1	7.4	1.7	16.6	6.7
Queue Length 50th (m)	0.0	28.6	11.7	61.7	0.2	2.3	50.4
Queue Length 95th (m)	2.4	48.4	21.0	87.7	4.4	m8.5	78.9
Internal Link Dist (m)	146.2		318.3	385.5			262.4
Turn Bay Length (m)		25.0			45.0	65.0	
Base Capacity (vph)	640	211	522	3239	978	114	3178
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.57	0.28	0.51	0.06	0.39	0.61

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	19	112	0	137	0	1528	58	42	1809	0
Future Volume (veh/h)	0	0	19	112	0	137	0	1528	58	42	1809	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1397	1473	1900	1863	1810	1520	1638	1776	1863
Adj Flow Rate, veh/h	0	0	21	120	0	147	0	1643	62	45	1945	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Percent Heavy Veh, %	2	2	2	36	2	29	2	5	25	16	7	2
Cap, veh/h	60	264	236	203	209	187	60	3256	969	210	3196	1187
Arrive On Green	0.00	0.00	0.15	0.15	0.00	0.15	0.00	0.75	0.75	1.00	1.00	0.00
Sat Flow, veh/h	1236	1770	1583	1039	1399	1252	226	4343	1292	251	4262	1583
Grp Volume(v), veh/h	0	0	21	120	0	147	0	1643	62	45	1945	0
Grp Sat Flow(s),veh/h/ln	1236	1770	1583	1039	1399	1252	226	1448	1292	251	1421	1583
Q Serve(g_s), s	0.0	0.0	1.4	13.5	0.0	13.6	0.0	18.3	1.5	5.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.4	14.9	0.0	13.6	0.0	18.3	1.5	24.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	264	236	203	209	187	60	3256	969	210	3196	1187
V/C Ratio(X)	0.00	0.00	0.09	0.59	0.00	0.79	0.00	0.50	0.06	0.21	0.61	0.00
Avail Cap(c_a), veh/h	128	361	323	260	286	256	60	3256	969	210	3196	1187
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.84	0.84	0.00
Uniform Delay (d), s/veh	0.0	0.0	44.0	50.4	0.0	49.2	0.0	6.0	3.9	2.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.2	2.7	0.0	10.6	0.0	0.6	0.1	1.9	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	4.0	0.0	5.2	0.0	7.3	0.6	0.5	0.2	0.0
LnGrp Delay(d),s/veh	0.0	0.0	44.2	53.1	0.0	59.8	0.0	6.6	4.1	4.4	0.7	0.0
LnGrp LOS			D	D		E		A	A	A	A	
Approach Vol, veh/h		21			267			1705			1990	
Approach Delay, s/veh		44.2			56.8			6.5			0.8	
Approach LOS		D			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		96.6		23.4		96.6		23.4
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		20.3		3.4		26.0		16.9
Green Ext Time (p_c), s		25.9		0.1		35.1		1.0

Intersection Summary

HCM 2010 Ctrl Delay	7.2	
HCM 2010 LOS	A	

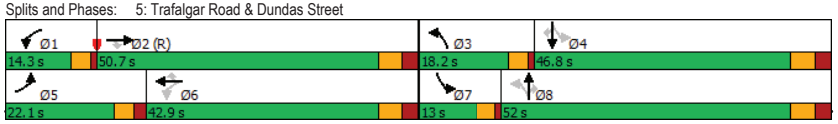
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	468	2062	280	226	1230	130	214	1021	149	302	1187	360
Future Volume (vph)	468	2062	280	226	1230	130	214	1021	149	302	1187	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98				1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	4343	1538	1736	4343	1524
Flt Permitted	0.950			0.110			0.091			0.138		
Satd. Flow (perm)	3400	5085	1557	195	4715	1292	166	4343	1538	252	4343	1497
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			198			172			138			265
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	478	2104	286	231	1255	133	218	1042	152	308	1211	367
Shared Lane Traffic (%)												
Lane Group Flow (vph)	478	2104	286	231	1255	133	218	1042	152	308	1211	367
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5	16.5	11.0	16.5	16.5
Total Split (s)	22.1	50.7	50.7	14.3	42.9	42.9	18.2	52.0	52.0	13.0	46.8	46.8
Total Split (%)	17.0%	39.0%	39.0%	11.0%	33.0%	33.0%	14.0%	40.0%	40.0%	10.0%	36.0%	36.0%
Maximum Green (s)	17.1	44.3	44.3	10.3	36.5	36.5	14.2	45.5	45.5	9.0	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	17.6	44.3	44.3	49.7	36.5	36.5	60.5	45.0	45.0	51.4	39.9	39.9
Actuated g/C Ratio	0.14	0.34	0.34	0.38	0.28	0.28	0.47	0.35	0.35	0.40	0.31	0.31
v/c Ratio	1.04	1.21	0.43	1.16	0.95	0.27	0.89	0.69	0.24	1.52	0.91	0.57
Control Delay	105.9	140.0	12.4	158.4	47.4	1.9	65.7	39.4	7.0	282.6	54.1	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.9	140.0	12.4	158.4	47.4	1.9	65.7	39.4	7.0	282.6	54.1	14.2
LOS	F	F	B	F	D	A	E	D	A	F	D	B
Approach Delay		121.6			59.5			40.0			83.6	
Approach LOS		F			E			D			F	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 18.2 (14%), Referenced to phase 2:EBT, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.52			
Intersection Signal Delay: 84.7		Intersection LOS: F	
Intersection Capacity Utilization 106.2%		ICU Level of Service G	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 5: Trafalgar Road & Dundas Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	478	2104	286	231	1255	133	218	1042	152	308	1211	367
v/c Ratio	1.04	1.21	0.43	1.16	0.95	0.27	0.89	0.69	0.24	1.52	0.91	0.57
Control Delay	105.9	140.0	12.4	158.4	47.4	1.9	65.7	39.4	7.0	282.6	54.1	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.9	140.0	12.4	158.4	47.4	1.9	65.7	39.4	7.0	282.6	54.1	14.2
Queue Length 50th (m)	~73.4	~253.9	16.6	~61.0	123.5	1.2	41.1	99.6	2.5	~92.6	130.1	20.5
Queue Length 95th (m)	#108.7	#284.1	41.6	#115.9	#153.4	2.3	#87.7	118.9	17.7	#152.9	#156.1	53.7
Internal Link Dist (m)		530.9			391.5			307.2			385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Base Capacity (vph)	461	1732	661	199	1323	486	248	1520	628	202	1346	646
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.04	1.21	0.43	1.16	0.95	0.27	0.88	0.69	0.24	1.52	0.90	0.57

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	468	2062	280	226	1230	130	214	1021	149	302	1187	360
Future Volume (veh/h)	468	2062	280	226	1230	130	214	1021	149	302	1187	360
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1810	1827	1810	1792
Adj Flow Rate, veh/h	478	2104	286	231	1255	133	218	1042	152	308	1211	367
Adj No. of Lanes	2	3	1	1	3	1	1	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	448	1796	557	189	1382	377	243	1466	517	235	1329	464
Arrive On Green	0.13	0.35	0.35	0.08	0.29	0.29	0.10	0.34	0.34	0.07	0.31	0.31
Sat Flow, veh/h	3408	5085	1578	1691	4715	1287	1740	4343	1531	1740	4343	1516
Grp Volume(v), veh/h	478	2104	286	231	1255	133	218	1042	152	308	1211	367
Grp Sat Flow(s),veh/h/ln	1704	1695	1578	1691	1572	1287	1740	1448	1531	1740	1448	1516
Q Serve(g_s), s	17.1	45.9	18.6	10.3	33.3	10.6	11.0	27.2	9.5	9.0	34.9	28.8
Cycle Q Clear(g_c), s	17.1	45.9	18.6	10.3	33.3	10.6	11.0	27.2	9.5	9.0	34.9	28.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	448	1796	557	189	1382	377	243	1466	517	235	1329	464
V/C Ratio(X)	1.07	1.17	0.51	1.22	0.91	0.35	0.90	0.71	0.29	1.31	0.91	0.79
Avail Cap(c_a), veh/h	448	1796	557	189	1382	377	257	1520	536	235	1346	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	42.0	33.2	34.5	44.3	36.2	32.5	37.5	31.7	40.2	43.4	41.3
Incr Delay (d2), s/veh	61.2	83.6	3.4	137.0	9.6	1.5	30.3	1.6	0.4	167.6	9.6	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.8	35.3	8.6	11.9	15.6	3.9	9.7	11.1	4.1	16.7	15.1	13.2
LnGrp Delay(d),s/veh	117.7	125.6	36.6	171.5	53.9	37.8	62.8	39.1	32.0	207.8	53.0	50.4
LnGrp LOS	F	F	D	F	D	D	E	D	C	F	D	D
Approach Vol, veh/h		2868			1619			1412			1886	
Approach Delay, s/veh		115.4			69.4			42.0			77.7	
Approach LOS		F			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	52.3	17.1	46.3	22.1	44.5	13.0	50.4
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	10.3	44.3	14.2	40.3	17.1	36.5	9.0	45.5
Max Q Clear Time (g_c+I1), s	12.3	47.9	13.0	36.9	19.1	35.3	11.0	29.2
Green Ext Time (p_c), s	0.0	0.0	0.1	2.9	0.0	1.1	0.0	9.2

Intersection Summary	
HCM 2010 Ctrl Delay	83.4
HCM 2010 LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	2456	40	164	1441	93	71	44	186	157	95	121
Future Volume (vph)	45	2456	40	164	1441	93	71	44	186	157	95	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00		0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.916	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3141	0
Flt Permitted	0.145			0.059			0.608			0.726		
Satd. Flow (perm)	265	4940	1470	110	4673	1281	1104	1900	1577	1363	3141	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			70			99			136		32	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	48	2613	43	174	1533	99	76	47	198	167	101	129
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	2613	43	174	1533	99	76	47	198	167	230	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	2	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	26.8	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	70.2	70.2	70.2	13.0	83.2	83.2	46.8	46.8	46.8	46.8	46.8	
Total Split (%)	54.0%	54.0%	54.0%	10.0%	64.0%	64.0%	36.0%	36.0%	36.0%	36.0%	36.0%	
Maximum Green (s)	63.4	63.4	63.4	9.0	76.4	76.4	39.4	39.4	39.4	39.4	39.4	
Yellow Time (s)	4.2	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.6	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.8	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	24.0	24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	63.4	63.4	63.4	79.2	76.4	76.4	39.4	39.4	39.4	39.4	39.4	
Actuated g/C Ratio	0.49	0.49	0.49	0.61	0.59	0.59	0.30	0.30	0.30	0.30	0.30	
v/c Ratio	0.37	1.08	0.06	0.96	0.56	0.12	0.23	0.08	0.35	0.40	0.24	
Control Delay	21.1	69.7	2.4	88.1	17.4	2.5	36.2	33.0	13.5	39.6	29.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	21.1	69.7	2.4	88.1	17.4	2.5	36.2	33.0	13.5	39.6	29.8	
LOS	C	E	A	F	B	A	D	C	B	D	C	
Approach Delay		67.8			23.4			21.8			34.0	
Approach LOS		E			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 9.1 (7%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.08			
Intersection Signal Delay: 47.1		Intersection LOS: D	
Intersection Capacity Utilization 119.1%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 6: Postridge Drive & Dundas Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	48	2613	43	174	1533	99	76	47	198	167	230
v/c Ratio	0.37	1.08	0.06	0.96	0.56	0.12	0.23	0.08	0.35	0.40	0.24
Control Delay	21.1	69.7	2.4	88.1	17.4	2.5	36.2	33.0	13.5	39.6	29.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.1	69.7	2.4	88.1	17.4	2.5	36.2	33.0	13.5	39.6	29.8
Queue Length 50th (m)	5.0	~278.1	0.4	30.3	88.4	0.0	15.3	9.1	12.1	35.8	20.8
Queue Length 95th (m)	m4.8	m95.1	m0.3	#77.7	102.2	7.6	29.2	18.8	32.8	57.9	32.1
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	129	2409	752	181	2746	793	334	575	572	413	974
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	1.08	0.06	0.96	0.56	0.12	0.23	0.08	0.35	0.40	0.24

Intersection Summary

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	2456	40	164	1441	93	71	44	186	157	95	121
Future Volume (veh/h)	45	2456	40	164	1441	93	71	44	186	157	95	121
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1825	1900
Adj Flow Rate, veh/h	48	2613	43	174	1533	99	76	47	198	167	101	129
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	172	2409	726	178	2746	770	323	576	481	379	525	466
Arrive On Green	0.49	0.49	0.49	0.07	0.59	0.59	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	301	4940	1489	1774	4673	1310	1118	1900	1586	1135	1734	1539
Grp Volume(v), veh/h	48	2613	43	174	1533	99	76	47	198	167	101	129
Grp Sat Flow(s),veh/h/ln	301	1647	1489	1774	1558	1310	1118	1900	1586	1135	1734	1539
Q Serve(g_s), s	15.1	63.4	2.0	8.7	26.2	4.4	7.2	2.3	12.9	16.0	5.6	8.3
Cycle Q Clear(g_c), s	28.3	63.4	2.0	8.7	26.2	4.4	15.5	2.3	12.9	18.3	5.6	8.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	172	2409	726	178	2746	770	323	576	481	379	525	466
V/C Ratio(X)	0.28	1.08	0.06	0.98	0.56	0.13	0.24	0.08	0.41	0.44	0.19	0.28
Avail Cap(c_a), veh/h	172	2409	726	178	2746	770	323	576	481	379	525	466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	33.3	17.6	41.3	16.4	12.0	40.4	32.4	36.1	38.9	33.5	34.5
Incr Delay (d2), s/veh	4.0	46.0	0.2	60.3	0.8	0.3	1.7	0.3	2.6	3.7	0.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	39.0	0.8	9.2	11.4	1.6	2.4	1.2	6.0	5.4	2.8	3.7
LnGrp Delay(d),s/veh	33.1	79.3	17.7	101.5	17.3	12.3	42.1	32.6	38.7	42.6	34.3	35.9
LnGrp LOS	C	F	B	F	B	B	D	C	D	D	C	D
Approach Vol, veh/h		2704			1806			321			397	
Approach Delay, s/veh		77.5			25.1			38.6			38.3	
Approach LOS		E			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	13.0	70.2		46.8		83.2		46.8
Change Period (Y+Rc), s	4.0	6.8		* 7.4		6.8		* 7.4
Max Green Setting (Gmax), s	9.0	63.4		* 39		76.4		* 39
Max Q Clear Time (g_c+I1), s	10.7	65.4		17.5		28.2		20.3
Green Ext Time (p_c), s	0.0	0.0		1.7		21.8		2.5

Intersection Summary		
HCM 2010 Ctrl Delay	54.0	
HCM 2010 LOS	D	

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	84	110	115	37	79	163
Future Volume (vph)	84	110	115	37	79	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.967			0.850
Flt Protected		0.979			0.950	
Satd. Flow (prot)	0	1637	1732	0	1671	1482
Flt Permitted		0.979			0.950	
Satd. Flow (perm)	0	1637	1732	0	1671	1482
Link Speed (k/h)		50	50		50	
Link Distance (m)		120.2	260.2		319.6	
Travel Time (s)		8.7	18.7		23.0	
Confl. Peds. (#/hr)					4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	25%	5%	8%	0%	8%	9%
Adj. Flow (vph)	95	125	131	42	90	185
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	220	173	0	90	185
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 33.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	84	110	115	37	79	163
Future Vol, veh/h	84	110	115	37	79	163
Conflicting Peds, #/hr	0	0	0	0	4	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	25	5	8	0	8	9
Mvmt Flow	95	125	131	42	90	185

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	173	0	-	0	471	152
Stage 1	-	-	-	-	152	-
Stage 2	-	-	-	-	319	-
Critical Hdwy	4.35	-	-	-	6.48	6.29
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.425	-	-	-	3.572	3.381
Pot Cap-1 Maneuver	1276	-	-	-	540	876
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	723	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1276	-	-	-	497	876
Mov Cap-2 Maneuver	-	-	-	-	497	-
Stage 1	-	-	-	-	792	-
Stage 2	-	-	-	-	723	-

Approach	EB	WB	SB
HCM Control Delay, s	3.5	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1276	-	-	-	497	876
HCM Lane V/C Ratio	0.075	-	-	-	0.181	0.211
HCM Control Delay (s)	8	0	-	-	13.8	10.2
HCM Lane LOS	A	A	-	-	B	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7	0.8

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	39	0	79	0	1776	14	32	1548	0
Future Volume (vph)	0	0	0	39	0	79	0	1776	14	32	1548	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt					0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3539	0	1770	3008	0	1863	4471	1583	1770	4471	1863
Flt Permitted				0.757						0.069		
Satd. Flow (perm)	1863	3539	0	1410	3008	0	1863	4471	1583	129	4471	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					33				23			
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		94.5			82.6			537.5			902.9	
Travel Time (s)		6.8			5.9			24.2			40.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	42	0	86	0	1930	15	35	1683	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	42	86	0	0	1930	15	35	1683	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5		23.5	23.5		24.6	24.6	24.6	24.6	24.6	24.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	0
Act Effct Green (s)				9.0	9.0			102.4	102.4	102.4	102.4	
Actuated g/C Ratio				0.08	0.08			0.85	0.85	0.85	0.85	
v/c Ratio				0.40	0.33			0.51	0.01	0.32	0.44	
Control Delay				62.8	36.4			2.9	0.4	5.8	1.2	
Queue Delay				0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay				62.8	36.4			2.9	0.4	5.8	1.2	
LOS				E	D			A	A	A	A	
Approach Delay					45.1			2.9			1.3	
Approach LOS					D			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay: 3.6		Intersection LOS: A	
Intersection Capacity Utilization 48.6%		ICU Level of Service A	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 8: Trafalgar Road & New Road A

Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	42	86	1930	15	35	1683
v/c Ratio	0.40	0.33	0.51	0.01	0.32	0.44
Control Delay	62.8	36.4	2.9	0.4	5.8	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.8	36.4	2.9	0.4	5.8	1.2
Queue Length 50th (m)	10.1	6.6	38.1	0.0	0.7	15.7
Queue Length 95th (m)	21.6	14.7	52.8	m0.2	m1.3	m20.0
Internal Link Dist (m)		58.6	513.5			878.9
Turn Bay Length (m)	25.0			45.0	65.0	
Base Capacity (vph)	287	640	3814	1354	110	3814
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.13	0.51	0.01	0.32	0.44

Intersection Summary
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	39	0	79	0	1776	14	32	1548	0
Future Volume (veh/h)	0	0	0	39	0	79	0	1776	14	32	1548	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	0	0	0	42	0	86	0	1930	15	35	1683	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	261	0	191	130	117	60	3690	1307	247	3690	1307
Arrive On Green	0.00	0.00	0.00	0.07	0.00	0.07	0.00	1.00	1.00	1.00	1.00	0.00
Sat Flow, veh/h	1306	3632	0	1774	1770	1583	292	4471	1583	226	4471	1583
Grp Volume(v), veh/h	0	0	0	42	0	86	0	1930	15	35	1683	0
Grp Sat Flow(s),veh/h/ln	1306	1770	0	1774	1770	1583	292	1490	1583	226	1490	1583
Q Serve(g_s), s	0.0	0.0	0.0	2.7	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.7	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	261	0	191	130	117	60	3690	1307	247	3690	1307
V/C Ratio(X)	0.00	0.00	0.00	0.22	0.00	0.74	0.00	0.52	0.01	0.14	0.46	0.00
Avail Cap(c_a), veh/h	230	723	0	422	361	323	60	3690	1307	247	3690	1307
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	52.7	0.0	54.4	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.6	0.0	8.7	0.0	0.5	0.0	1.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.3	0.0	3.1	0.0	0.2	0.0	0.1	0.1	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	53.3	0.0	63.2	0.0	0.5	0.0	1.2	0.4	0.0
LnGrp LOS				D		E		A	A	A	A	
Approach Vol, veh/h		0			128			1945			1718	
Approach Delay, s/veh		0.0			59.9			0.5			0.4	
Approach LOS					E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		105.7		14.3		105.7		14.3
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		2.0		0.0		2.0		8.4
Green Ext Time (p_c), s		36.7		0.0		31.6		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	2.5
HCM 2010 LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	25	21	12	68	0	50	0	3	0	0	0
Future Volume (vph)	0	25	21	12	68	0	50	0	3	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.938						0.992				
Flt Protected					0.993			0.955				
Satd. Flow (prot)	0	1747	0	0	1850	0	0	3353	0	0	3539	0
Flt Permitted					0.993			0.955				
Satd. Flow (perm)	0	1747	0	0	1850	0	0	3353	0	0	3539	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		41.7			205.9			80.1			70.6	
Travel Time (s)		3.0			14.8			5.8			5.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	27	23	13	74	0	54	0	3	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	50	0	0	87	0	0	57	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
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)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	25	21	12	68	0	50	0	3	0	0	0
Future Vol, veh/h	0	25	21	12	68	0	50	0	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	27	23	13	74	0	54	0	3	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	74	0	0	50	0	0	139	139	39	140	150	74
Stage 1	-	-	-	-	-	-	39	39	-	100	100	-
Stage 2	-	-	-	-	-	-	100	100	-	40	50	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1526	-	-	1557	-	-	831	752	1033	830	742	988
Stage 1	-	-	-	-	-	-	976	862	-	906	812	-
Stage 2	-	-	-	-	-	-	906	812	-	975	853	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1526	-	-	1557	-	-	825	745	1033	822	735	988
Mov Cap-2 Maneuver	-	-	-	-	-	-	825	745	-	822	735	-
Stage 1	-	-	-	-	-	-	976	862	-	906	805	-
Stage 2	-	-	-	-	-	-	898	805	-	972	853	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.1	9.6	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	825	1033	1526	-	-	1557	-	-	-	-
HCM Lane V/C Ratio	0.066	0.003	-	-	-	0.008	-	-	-	-
HCM Control Delay (s)	9.7	8.5	0	-	-	7.3	0	-	0	0
HCM Lane LOS	A	A	A	-	-	A	A	-	A	A
HCM 95th %tile Q(veh)	0.2	0	0	-	-	0	-	-	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	50	92	29	3	12	21
Future Volume (vph)	50	92	29	3	12	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.912				0.904	
Flt Protected	0.983			0.956		
Satd. Flow (prot)	1670	0	0	3383	3199	0
Flt Permitted	0.983			0.956		
Satd. Flow (perm)	1670	0	0	3383	3199	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	51.6			89.3	74.2	
Travel Time (s)	3.7			6.4	5.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	100	32	3	13	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	154	0	0	35	36	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.4%		ICU Level of Service A	
Analysis Period (min) 15			

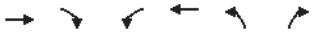
Intersection	
Int Delay, s/veh	7.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	50	92	29	3	12	21
Future Vol, veh/h	50	92	29	3	12	21
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	100	32	3	13	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	91	18	36	0	-	0
Stage 1	25	-	-	-	-	-
Stage 2	66	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	899	1056	1573	-	-	-
Stage 1	994	-	-	-	-	-
Stage 2	949	-	-	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	881	1056	1573	-	-	-
Mov Cap-2 Maneuver	881	-	-	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	949	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	6.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1573	-	987	-	-
HCM Lane V/C Ratio	0.02	-	0.156	-	-
HCM Control Delay (s)	7.3	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	28	0	0	80	0
Future Volume (vph)	0	28	0	0	80	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected					0.950	
Satd. Flow (prot)	1611	0	0	1863	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	1611	0	0	1863	1770	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	205.9			49.4	119.6	
Travel Time (s)	14.8			3.6	8.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	30	0	0	87	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	30	0	0	0	87	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 14.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	6.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	28	0	0	80	0
Future Vol, veh/h	0	28	0	0	80	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	30	0	0	87	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	30	0	16	15
Stage 1	-	-	-	-	15	-
Stage 2	-	-	-	-	1	-
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	-	-	1583	-	1002	1065
Stage 1	-	-	-	-	1008	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1583	-	1002	1065
Mov Cap-2 Maneuver	-	-	-	-	1002	-
Stage 1	-	-	-	-	1008	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1002	-	-	1583	-
HCM Lane V/C Ratio	0.087	-	-	-	-
HCM Control Delay (s)	8.9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

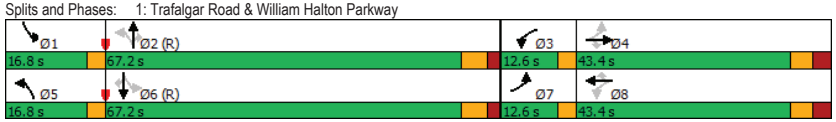
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	393	318	137	605	1797	34	355	2053	92	216	1493	610
Future Volume (vph)	393	318	137	605	1797	34	355	2053	92	216	1493	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4262	1553	1687	4515	1429
Flt Permitted	0.110			0.493			0.066			0.066		
Satd. Flow (perm)	195	3610	1583	937	3374	1553	125	4262	1553	117	4515	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			141			77			78			181
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	405	328	141	624	1853	35	366	2116	95	223	1539	629
Shared Lane Traffic (%)												
Lane Group Flow (vph)	405	328	141	624	1853	35	366	2116	95	223	1539	629
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	12.6	43.4	43.4	12.6	43.4	43.4	16.8	67.2	67.2	16.8	67.2	67.2
Total Split (%)	9.0%	31.0%	31.0%	9.0%	31.0%	31.0%	12.0%	48.0%	48.0%	12.0%	48.0%	48.0%
Maximum Green (s)	9.6	36.4	36.4	9.6	36.4	36.4	13.8	60.3	60.3	13.8	60.3	60.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	50.0	36.4	36.4	50.0	36.4	36.4	78.0	60.3	60.3	78.0	60.3	60.3
Actuated g/C Ratio	0.36	0.26	0.26	0.36	0.26	0.26	0.56	0.43	0.43	0.56	0.43	0.43
v/c Ratio	2.37	0.35	0.27	1.58	2.11	0.08	1.56	1.15	0.13	1.02	0.79	0.88
Control Delay	653.6	43.5	7.5	304.9	531.2	0.3	300.6	112.5	7.4	103.6	38.1	40.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	653.6	43.5	7.5	304.9	531.2	0.3	300.6	112.5	7.4	103.6	38.1	40.3
LOS	F	D	A	F	F	A	F	F	A	F	D	D
Approach Delay		320.4			467.6			135.3			44.8	
Approach LOS		F			F			F			D	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.37
Intersection Signal Delay: 228.7 Intersection LOS: F
Intersection Capacity Utilization 141.3% ICU Level of Service H
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 1: Trafalgar Road & William Halton Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	405	328	141	624	1853	35	366	2116	95	223	1539	629
v/c Ratio	2.37	0.35	0.27	1.58	2.11	0.08	1.56	1.15	0.13	1.02	0.79	0.88
Control Delay	653.6	43.5	7.5	304.9	531.2	0.3	300.6	112.5	7.4	103.6	38.1	40.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	653.6	43.5	7.5	304.9	531.2	0.3	300.6	112.5	7.4	103.6	38.1	40.3
Queue Length 50th (m)	~177.5	41.2	0.0	~258.1	~450.1	0.0	~133.5	~301.8	2.8	~50.5	159.3	126.8
Queue Length 95th (m)	#245.5	55.8	17.1	#333.7	#494.0	0.0	#199.2	#335.6	13.8	#106.9	182.4	#207.0
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	171	938	515	394	877	460	235	1835	713	219	1944	718
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.37	0.35	0.27	1.58	2.11	0.08	1.56	1.15	0.13	1.02	0.79	0.88

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	393	318	137	605	1797	34	355	2053	92	216	1493	610
Future Volume (veh/h)	393	318	137	605	1797	34	355	2053	92	216	1493	610
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	405	328	141	624	1853	35	366	2116	95	223	1539	629
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	167	939	412	350	877	404	255	1836	669	218	1945	616
Arrive On Green	0.07	0.26	0.26	0.07	0.26	0.26	0.10	0.43	0.43	0.10	0.43	0.43
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4262	1553	1691	4515	1429
Grp Volume(v), veh/h	405	328	141	624	1853	35	366	2116	95	223	1539	629
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1421	1553	1691	1505	1429
Q Serve(g_s), s	9.6	10.4	10.1	9.6	36.4	2.4	13.8	60.3	5.2	13.8	41.2	60.3
Cycle Q Clear(g_c), s	9.6	10.4	10.1	9.6	36.4	2.4	13.8	60.3	5.2	13.8	41.2	60.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	939	412	350	877	404	255	1836	669	218	1945	616
V/C Ratio(X)	2.42	0.35	0.34	1.78	2.11	0.09	1.43	1.15	0.14	1.02	0.79	1.02
Avail Cap(c_a), veh/h	167	939	412	350	877	404	255	1836	669	218	1945	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	42.2	42.1	48.9	51.8	39.2	40.3	39.9	24.2	45.9	34.4	39.8
Incr Delay (d2), s/veh	656.6	0.5	1.0	363.3	504.5	0.2	216.7	75.5	0.4	66.8	3.4	41.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
%ile BackOfQ(50%),veh/ln	32.5	5.2	4.5	45.3	78.4	1.0	25.2	36.5	2.3	12.5	17.7	30.9
LnGrp Delay(d),s/veh	698.0	42.6	43.1	412.2	556.3	39.4	257.0	115.3	24.6	112.9	37.8	81.8
LnGrp LOS	F	D	D	F	F	D	F	F	C	F	D	F
Approach Vol, veh/h		874			2512			2577			2391	
Approach Delay, s/veh		346.4			513.3			132.1			56.4	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.8	67.2	12.6	43.4	16.8	67.2	12.6	43.4
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	13.8	* 60	9.6	36.4	13.8	* 60	9.6	36.4
Max Q Clear Time (g_c+I1), s	15.8	62.3	11.6	12.4	15.8	62.3	11.6	38.4
Green Ext Time (p_c), s	0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	247.5
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

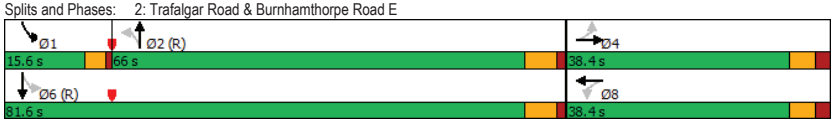
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	294	68	299	259	137	140	1964	125	194	1595	320
Future Volume (vph)	141	294	68	299	259	137	140	1964	125	194	1595	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.80	*0.80	1.00	*0.80	*0.80
Frt		0.972			0.948			0.991			0.975	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1797	0	1805	1755	0	1770	4203	0	1805	4149	0
Flt Permitted	0.163			0.220			0.066			0.062		
Satd. Flow (perm)	301	1797	0	418	1755	0	123	4203	0	118	4149	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			22			10			54	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	155	323	75	329	285	151	154	2158	137	213	1753	352
Shared Lane Traffic (%)												
Lane Group Flow (vph)	155	398	0	329	436	0	154	2295	0	213	2105	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		20.0	20.0		7.0	20.0	
Minimum Split (s)	16.0	16.0		16.0	16.0		26.0	26.0		11.0	26.0	
Total Split (s)	38.4	38.4		38.4	38.4		66.0	66.0		15.6	81.6	
Total Split (%)	32.0%	32.0%		32.0%	32.0%		55.0%	55.0%		13.0%	68.0%	
Maximum Green (s)	32.4	32.4		32.4	32.4		60.0	60.0		11.6	75.6	
Yellow Time (s)	3.7	3.7		3.7	3.7		4.6	4.6		3.0	4.6	
All-Red Time (s)	2.3	2.3		2.3	2.3		1.4	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		4.0	6.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Flash Dont Walk (s)	7.0	7.0		7.0	7.0		7.0	7.0			7.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)	32.4	32.4		32.4	32.4		60.2	60.2		77.6	75.6	
Actuated g/C Ratio	0.27	0.27		0.27	0.27		0.50	0.50		0.65	0.63	
v/c Ratio	1.91	0.81		2.94	0.89		2.52	1.09		0.90	0.80	
Control Delay	480.3	54.0		914.1	61.8		738.5	74.7		67.5	19.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	480.3	54.0		914.1	61.8		738.5	74.7		67.5	19.0	
LOS	F	D		F	E		F	E		E	B	
Approach Delay		173.5			428.3			116.5			23.5	
Approach LOS		F			F			F			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 120			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 2.94			
Intersection Signal Delay: 125.4		Intersection LOS: F	
Intersection Capacity Utilization 110.8%		ICU Level of Service H	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	155	398	329	436	154	2295	213	2105
v/c Ratio	1.91	0.81	2.94	0.89	2.52	1.09	0.90	0.80
Control Delay	480.3	54.0	914.1	61.8	738.5	74.7	67.5	19.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	480.3	54.0	914.1	61.8	738.5	74.7	67.5	19.0
Queue Length 50th (m)	~59.0	90.2	~140.6	99.4	~64.3	~265.9	35.4	147.5
Queue Length 95th (m)	#102.8	#139.5	#175.9	#159.9	#110.3	#303.4	#81.5	172.8
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	81	492	112	489	61	2113	239	2633
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.91	0.81	2.94	0.89	2.52	1.09	0.89	0.80

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	294	68	299	259	137	140	1964	125	194	1595	320
Future Volume (veh/h)	141	294	68	299	259	137	140	1964	125	194	1595	320
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1849	1900	1900	1852	1900	1863	1767	1900	1900	1773	1900
Adj Flow Rate, veh/h	155	323	75	329	285	151	154	2158	137	213	1753	352
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	85	392	91	121	308	163	117	2138	135	235	2354	468
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	1.00	1.00	1.00	0.10	0.63	0.63
Sat Flow, veh/h	940	1452	337	1002	1141	604	193	4277	270	1810	3737	742
Grp Volume(v), veh/h	155	0	398	329	0	436	154	1422	873	213	1326	779
Grp Sat Flow(s),veh/h/ln	940	0	1790	1002	0	1745	193	1414	1719	1810	1418	1642
Q Serve(g_s), s	3.2	0.0	25.1	7.3	0.0	29.2	35.5	60.0	60.0	10.0	39.0	40.1
Cycle Q Clear(g_c), s	32.4	0.0	25.1	32.4	0.0	29.2	60.0	60.0	60.0	10.0	39.0	40.1
Prop In Lane	1.00		0.19	1.00		0.35	1.00		0.16	1.00		0.45
Lane Grp Cap(c), veh/h	85	0	483	121	0	471	117	1414	860	235	1787	1034
V/C Ratio(X)	1.82	0.00	0.82	2.71	0.00	0.93	1.31	1.01	1.02	0.91	0.74	0.75
Avail Cap(c_a), veh/h	85	0	483	121	0	471	117	1414	860	235	1787	1034
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.5	0.0	41.1	58.1	0.0	42.6	21.3	0.0	0.0	39.0	15.4	15.6
Incr Delay (d2), s/veh	410.6	0.0	11.1	792.9	0.0	24.3	188.9	25.4	34.5	34.8	2.8	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.5	0.0	13.9	30.7	0.0	17.2	10.0	5.0	8.2	9.3	15.8	19.4
LnGrp Delay(d),s/veh	470.1	0.0	52.2	851.0	0.0	66.9	210.3	25.4	34.5	73.8	18.3	20.7
LnGrp LOS	F		D	F		E	F	F	F	E	B	C
Approach Vol, veh/h		553			765			2449			2318	
Approach Delay, s/veh		169.3			404.1			40.3			24.2	
Approach LOS		F			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	15.6	66.0		38.4		81.6		38.4
Change Period (Y+Rc), s	4.0	* 6		6.0		* 6		6.0
Max Green Setting (Gmax), s	11.6	* 60		32.4		* 76		32.4
Max Q Clear Time (g_c+I1), s	12.0	62.0		34.4		42.1		34.4
Green Ext Time (p_c), s	0.0	0.0		0.0		30.9		0.0

Intersection Summary

HCM 2010 Ctrl Delay	91.6
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

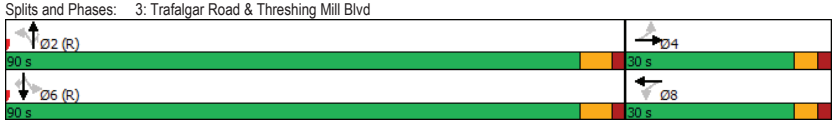
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	0	51	95	30	260	63	1944	139	90	1776	34
Future Volume (vph)	21	0	51	95	30	260	63	1944	139	90	1776	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.866				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3008	0	1410	3012	0	1770	4262	1404	1671	4262	1583
Flt Permitted	0.419			0.719			0.070			0.053		
Satd. Flow (perm)	780	3008	0	1067	3012	0	130	4262	1404	93	4262	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33			21				112			31
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		175.7			120.2			286.4			537.5	
Travel Time (s)		12.7			8.7			12.9			24.2	
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Heavy Vehicles (%)	2%	2%	2%	28%	2%	4%	2%	7%	15%	8%	7%	2%
Adj. Flow (vph)	23	0	55	99	33	271	68	2025	145	94	1850	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	55	0	99	304	0	68	2025	145	94	1850	37
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		41.6	41.6	41.6	41.6	41.6	41.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0	5.0	5.0	5.0	5.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0	28.0	28.0	28.0
Pedestrian Calls (#/hr)	0	0					0	0	0	0	0	0
Act Effct Green (s)	17.3	17.3		17.3	17.3		90.6	90.6	90.6	90.6	90.6	90.6
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.76	0.76	0.76	0.76	0.76	0.76
v/c Ratio	0.21	0.12		0.65	1.12dr		0.69	0.63	0.13	1.34	0.58	0.03
Control Delay	47.5	21.5		66.7	52.2		38.6	3.2	0.3	239.7	6.9	2.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.5	21.5		66.7	52.2		38.6	3.2	0.3	239.7	6.9	2.8
LOS	D	C		E	D		D	A	A	F	A	A
Approach Delay		29.2			55.8			4.1			17.9	
Approach LOS		C			E			A			B	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 20.4 (17%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.34
Intersection Signal Delay: 14.7 Intersection LOS: B
Intersection Capacity Utilization 87.3% ICU Level of Service E
Analysis Period (min) 15
* User Entered Value
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 3: Trafalgar Road & Threshing Mill Blvd



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	23	55	99	304	68	2025	145	94	1850	37
v/c Ratio	0.21	0.12	0.65	1.12dr	0.69	0.63	0.13	1.34	0.58	0.03
Control Delay	47.5	21.5	66.7	52.2	38.6	3.2	0.3	239.7	6.9	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.5	21.5	66.7	52.2	38.6	3.2	0.3	239.7	6.9	2.8
Queue Length 50th (m)	5.1	2.5	23.6	35.6	2.0	24.9	0.3	~31.2	60.1	0.7
Queue Length 95th (m)	12.8	8.3	40.5	47.9	m#30.9	28.4	m0.5	#64.5	107.9	m4.1
Internal Link Dist (m)		151.7		96.2		262.4			513.5	
Turn Bay Length (m)	25.0		25.0		75.0		45.0	65.0		45.0
Base Capacity (vph)	159	640	217	631	98	3217	1087	70	3217	1202
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.09	0.46	0.48	0.69	0.63	0.13	1.34	0.58	0.03

Intersection Summary

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	0	51	95	30	260	63	1944	139	90	1776	34
Future Volume (veh/h)	21	0	51	95	30	260	63	1944	139	90	1776	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1484	1831	1900	1863	1776	1652	1759	1776	1863
Adj Flow Rate, veh/h	23	0	55	99	33	271	68	2025	145	94	1850	37
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.96	0.92	0.96	0.92	0.96	0.96	0.96	0.96	0.92
Percent Heavy Veh, %	2	2	2	28	2	4	2	7	15	8	7	2
Cap, veh/h	99	361	323	248	355	318	151	2962	976	179	2962	1100
Arrive On Green	0.20	0.00	0.20	0.20	0.20	0.20	1.00	1.00	1.00	0.47	0.47	0.47
Sat Flow, veh/h	1071	1770	1583	1070	1739	1556	248	4262	1404	171	4262	1583
Grp Volume(v), veh/h	23	0	55	99	33	271	68	2025	145	94	1850	37
Grp Sat Flow(s),veh/h/ln	1071	1770	1583	1070	1739	1556	248	1421	1404	171	1421	1583
Q Serve(g_s), s	2.5	0.0	3.4	10.1	1.8	20.1	25.5	0.0	0.0	55.6	39.3	1.5
Cycle Q Clear(g_c), s	22.7	0.0	3.4	13.5	1.8	20.1	64.8	0.0	0.0	55.6	39.3	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	99	361	323	248	355	318	151	2962	976	179	2962	1100
V/C Ratio(X)	0.23	0.00	0.17	0.40	0.09	0.85	0.45	0.68	0.15	0.52	0.62	0.03
Avail Cap(c_a), veh/h	99	361	323	248	355	318	151	2962	976	179	2962	1100
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	0.70	0.70	0.70	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.9	0.0	39.4	44.9	38.7	46.0	15.2	0.0	0.0	24.6	20.3	10.2
Incr Delay (d2), s/veh	1.2	0.0	0.2	1.0	0.1	19.5	6.6	0.9	0.2	10.6	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.5	3.0	0.9	10.4	2.0	0.3	0.1	3.2	15.7	0.7
LnGrp Delay(d),s/veh	58.1	0.0	39.6	46.0	38.8	65.5	21.9	0.9	0.2	35.2	21.3	10.2
LnGrp LOS	E		D	D	D	E	C	A	A	D	C	B
Approach Vol, veh/h		78			403			2238			1981	
Approach Delay, s/veh		45.1			58.6			1.5			21.7	
Approach LOS		D			E			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		90.0		30.0		90.0		30.0
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		66.8		24.7		57.6		22.1
Green Ext Time (p_c), s		16.1		0.0		24.3		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	15.6
HCM 2010 LOS	B

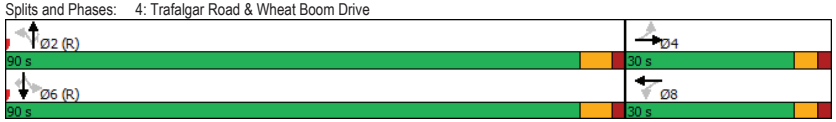
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	14	123	0	170	0	1968	140	114	1855	0
Future Volume (vph)	0	0	14	123	0	170	0	1968	140	114	1855	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3008	0	1327	2379	0	1863	4343	1292	1556	4262	1863
Flt Permitted				0.747						0.045		
Satd. Flow (perm)	1863	3008	0	1044	2379	0	1863	4343	1292	74	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33			33				112			
Link Speed (k/h)		50			50			60			80	
Link Distance (m)		170.2			342.3			409.5			286.4	
Travel Time (s)		12.3			24.6			24.6			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Heavy Vehicles (%)	2%	2%	2%	36%	2%	29%	2%	5%	25%	16%	7%	2%
Adj. Flow (vph)	0	0	15	132	0	183	0	2116	151	123	1995	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	132	183	0	0	2116	151	123	1995	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0			
Pedestrian Calls (#/hr)	0	0					0	0	0			
Act Effct Green (s)		19.3		19.3	19.3			88.6	88.6	88.6	88.6	
Actuated g/C Ratio		0.16		0.16	0.16			0.74	0.74	0.74	0.74	
v/c Ratio		0.03		0.79	0.45			0.66	0.15	2.28	0.63	
Control Delay		4.1		77.9	39.4			9.9	2.2	635.4	4.8	
Queue Delay		0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay		4.1		77.9	39.4			9.9	2.2	635.4	4.8	
LOS		A		E	D			A	A	F	A	
Approach Delay		4.1			55.6			9.4			41.4	
Approach LOS		A			E			A			D	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 13.2 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.28
Intersection Signal Delay: 26.9 Intersection LOS: C
Intersection Capacity Utilization 83.8% ICU Level of Service E
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	15	132	183	2116	151	123	1995
v/c Ratio	0.03	0.79	0.45	0.66	0.15	2.28	0.63
Control Delay	4.1	77.9	39.4	9.9	2.2	635.4	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.1	77.9	39.4	9.9	2.2	635.4	4.8
Queue Length 50th (m)	0.0	31.5	17.5	100.7	2.4	~49.9	41.5
Queue Length 95th (m)	1.2	52.9	28.3	135.8	9.3	#90.3	41.0
Internal Link Dist (m)	146.2		318.3	385.5			262.4
Turn Bay Length (m)		25.0			45.0	65.0	
Base Capacity (vph)	640	213	511	3205	983	54	3146
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.62	0.36	0.66	0.15	2.28	0.63

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	14	123	0	170	0	1968	140	114	1855	0
Future Volume (veh/h)	0	0	14	123	0	170	0	1968	140	114	1855	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1397	1473	1900	1863	1810	1520	1638	1776	1863
Adj Flow Rate, veh/h	0	0	15	132	0	183	0	2116	151	123	1995	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Percent Heavy Veh, %	2	2	2	36	2	29	2	5	25	16	7	2
Cap, veh/h	60	296	265	227	234	210	60	3178	945	129	3119	1159
Arrive On Green	0.00	0.00	0.17	0.17	0.00	0.17	0.00	0.73	0.73	1.00	1.00	0.00
Sat Flow, veh/h	1196	1770	1583	1045	1399	1252	215	4343	1292	145	4262	1583
Grp Volume(v), veh/h	0	0	15	132	0	183	0	2116	151	123	1995	0
Grp Sat Flow(s),veh/h/ln	1196	1770	1583	1045	1399	1252	215	1448	1292	145	1421	1583
Q Serve(g_s), s	0.0	0.0	1.0	14.6	0.0	17.1	0.0	30.6	4.3	57.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.0	15.5	0.0	17.1	0.0	30.6	4.3	87.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	296	265	227	234	210	60	3178	945	129	3119	1159
V/C Ratio(X)	0.00	0.00	0.06	0.58	0.00	0.87	0.00	0.67	0.16	0.95	0.64	0.00
Avail Cap(c_a), veh/h	104	361	323	265	286	256	60	3178	945	129	3119	1159
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.79	0.79	0.00
Uniform Delay (d), s/veh	0.0	0.0	42.0	48.5	0.0	48.7	0.0	8.4	4.9	27.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	2.4	0.0	23.3	0.0	1.1	0.4	58.9	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.4	4.4	0.0	7.3	0.0	12.3	1.6	6.2	0.2	0.0
LnGrp Delay(d),s/veh	0.0	0.0	42.1	50.9	0.0	72.0	0.0	9.5	5.2	86.7	0.8	0.0
LnGrp LOS			D	D		E		A	A	F	A	
Approach Vol, veh/h		15			315			2267			2118	
Approach Delay, s/veh		42.1			63.2			9.3			5.8	
Approach LOS		D			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		94.4		25.6		94.4		25.6
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		32.6		3.0		89.8		19.1
Green Ext Time (p_c), s		35.1		0.0		0.0		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	11.4
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	562	1815	284	274	2385	144	352	1446	296	345	1098	520
Future Volume (vph)	562	1815	284	274	2385	144	352	1446	296	345	1098	520
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98				1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	4343	1538	1736	4343	1524
Flt Permitted	0.950			0.099			0.099			0.099		
Satd. Flow (perm)	3400	5085	1557	176	4715	1292	181	4343	1538	181	4343	1497
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			217			105			180			258
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	573	1852	290	280	2434	147	359	1476	302	352	1120	531
Shared Lane Traffic (%)												
Lane Group Flow (vph)	573	1852	290	280	2434	147	359	1476	302	352	1120	531
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

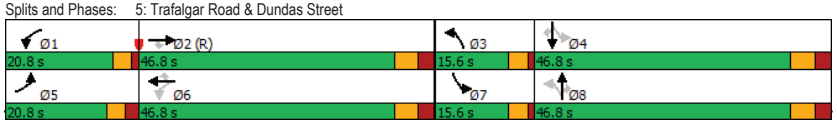
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5	16.5	11.0	16.5	16.5
Total Split (s)	20.8	46.8	46.8	20.8	46.8	46.8	15.6	46.8	46.8	15.6	46.8	46.8
Total Split (%)	16.0%	36.0%	36.0%	16.0%	36.0%	36.0%	12.0%	36.0%	36.0%	12.0%	36.0%	36.0%
Maximum Green (s)	15.8	40.4	40.4	16.8	40.4	40.4	11.6	40.3	40.3	11.6	40.3	40.3
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	15.8	40.4	40.4	59.6	40.4	40.4	54.4	40.3	40.3	54.4	40.3	40.3
Actuated g/C Ratio	0.12	0.31	0.31	0.46	0.31	0.31	0.42	0.31	0.31	0.42	0.31	0.31
v/c Ratio	1.39	1.17	0.46	1.02	1.66	0.31	1.68	1.10	0.50	1.64	0.83	0.83
Control Delay	230.5	124.7	12.0	78.0	327.3	13.1	350.2	97.4	17.4	336.3	48.2	33.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	230.5	124.7	12.0	78.0	327.3	13.1	350.2	97.4	17.4	336.3	48.2	33.1
LOS	F	F	B	E	F	B	F	F	B	F	D	C
Approach Delay		135.0			286.8			128.6			94.8	
Approach LOS		F			F			F			F	

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 40.3 (31%), Referenced to phase 2:EBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.68
Intersection Signal Delay: 170.0 — Intersection LOS: F
Intersection Capacity Utilization 127.4% — ICU Level of Service H
Analysis Period (min) 15

* User Entered Value

Splits and Phases: 5: Trafalgar Road & Dundas Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	573	1852	290	280	2434	147	359	1476	302	352	1120	531
v/c Ratio	1.39	1.17	0.46	1.02	1.66	0.31	1.68	1.10	0.50	1.64	0.83	0.83
Control Delay	230.5	124.7	12.0	78.0	327.3	13.1	350.2	97.4	17.4	336.3	48.2	33.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	230.5	124.7	12.0	78.0	327.3	13.1	350.2	97.4	17.4	336.3	48.2	33.1
Queue Length 50th (m)	~105.8	~217.9	14.2	~65.5	~345.6	9.4	~125.1	~187.4	25.3	~121.1	116.9	73.4
Queue Length 95th (m)	#143.0	#248.9	39.9	m54.3	m#266.2	m7.3	#188.8	#222.8	54.3	#184.3	139.0	#136.9
Internal Link Dist (m)		530.9			391.5			307.2			385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Base Capacity (vph)	413	1580	633	275	1465	473	214	1346	600	214	1346	642
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.39	1.17	0.46	1.02	1.66	0.31	1.68	1.10	0.50	1.64	0.83	0.83

Intersection Summary

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	562	1815	284	274	2385	144	352	1446	296	345	1098	520
Future Volume (veh/h)	562	1815	284	274	2385	144	352	1446	296	345	1098	520
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1810	1827	1810	1792
Adj Flow Rate, veh/h	573	1852	290	280	2434	147	359	1476	302	352	1120	531
Adj No. of Lanes	2	3	1	1	3	1	1	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	414	1580	490	274	1465	400	231	1346	475	211	1346	470
Arrive On Green	0.12	0.31	0.31	0.13	0.31	0.31	0.09	0.31	0.31	0.09	0.31	0.31
Sat Flow, veh/h	3408	5085	1577	1691	4715	1287	1740	4343	1531	1740	4343	1516
Grp Volume(v), veh/h	573	1852	290	280	2434	147	359	1476	302	352	1120	531
Grp Sat Flow(s),veh/h/ln	1704	1695	1577	1691	1572	1287	1740	1448	1531	1740	1448	1516
Q Serve(g_s), s	15.8	40.4	20.2	16.8	40.4	11.6	11.6	40.3	22.0	11.6	31.2	40.3
Cycle Q Clear(g_c), s	15.8	40.4	20.2	16.8	40.4	11.6	11.6	40.3	22.0	11.6	31.2	40.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	414	1580	490	274	1465	400	231	1346	475	211	1346	470
V/C Ratio(X)	1.38	1.17	0.59	1.02	1.66	0.37	1.55	1.10	0.64	1.67	0.83	1.13
Avail Cap(c_a), veh/h	414	1580	490	274	1465	400	231	1346	475	211	1346	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.1	44.8	37.8	40.2	44.8	34.9	33.7	44.8	38.6	37.1	41.7	44.8
Incr Delay (d2), s/veh	186.9	84.5	5.2	60.2	300.5	1.6	268.4	55.3	3.0	322.0	4.7	82.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.2	31.2	9.5	14.4	58.3	4.3	25.7	23.0	9.7	26.4	13.0	27.6
LnGrp Delay(d),s/veh	244.0	129.3	43.0	100.5	345.3	36.4	302.1	100.1	41.6	359.1	46.4	126.9
LnGrp LOS	F	F	D	F	F	D	F	F	D	F	D	F
Approach Vol, veh/h		2715			2861			2137			2003	
Approach Delay, s/veh		144.3			305.5			125.8			122.7	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.8	46.8	15.6	46.8	20.8	46.8	15.6	46.8
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	16.8	40.4	11.6	40.3	15.8	40.4	11.6	40.3
Max Q Clear Time (g_c+I1), s	18.8	42.4	13.6	42.3	17.8	42.4	13.6	42.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	183.2
HCM 2010 LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	83	2002	77	330	2660	173	143	102	173	134	70	57
Future Volume (vph)	83	2002	77	330	2660	173	143	102	173	134	70	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor			0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.932	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3209	0
Flt Permitted	0.079			0.074			0.666			0.687		
Satd. Flow (perm)	144	4940	1470	138	4673	1281	1209	1900	1577	1290	3209	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			104			114			184		61	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	88	2130	82	351	2830	184	152	109	184	143	74	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	2130	82	351	2830	184	152	109	184	143	135	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	11.0	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	11.7	57.2	57.2	26.0	71.5	71.5	46.8	46.8	46.8	46.8	46.8	
Total Split (%)	9.0%	44.0%	44.0%	20.0%	55.0%	55.0%	36.0%	36.0%	36.0%	36.0%	36.0%	
Maximum Green (s)	7.7	50.4	50.4	22.0	64.7	64.7	39.4	39.4	39.4	39.4	39.4	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)		24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	60.7	50.4	50.4	79.2	64.9	64.9	39.4	39.4	39.4	39.4	39.4	
Actuated g/C Ratio	0.47	0.39	0.39	0.61	0.50	0.50	0.30	0.30	0.30	0.30	0.30	
v/c Ratio	0.56	1.11	0.13	0.97	1.21	0.26	0.42	0.19	0.30	0.37	0.13	
Control Delay	32.2	86.3	6.6	79.7	130.9	8.3	40.4	34.6	6.0	38.9	18.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	32.2	86.3	6.6	79.7	130.9	8.3	40.4	34.6	6.0	38.9	18.4	
LOS	C	F	A	E	F	A	D	C	A	D	B	
Approach Delay		81.4			118.8			24.7			28.9	
Approach LOS		F			F			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 36.4 (28%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.21			
Intersection Signal Delay: 94.9		Intersection LOS: F	
Intersection Capacity Utilization 119.4%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 6: Postridge Drive & Dundas Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	88	2130	82	351	2830	184	152	109	184	143	135
v/c Ratio	0.56	1.11	0.13	0.97	1.21	0.26	0.42	0.19	0.30	0.37	0.13
Control Delay	32.2	86.3	6.6	79.7	130.9	8.3	40.4	34.6	6.0	38.9	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.2	86.3	6.6	79.7	130.9	8.3	40.4	34.6	6.0	38.9	18.4
Queue Length 50th (m)	14.8	~231.5	2.1	77.4	~342.1	9.8	32.7	21.7	0.0	30.2	7.4
Queue Length 95th (m)	m12.7	m100.5	m1.8	#141.3	#369.1	24.3	54.3	37.2	17.3	50.5	15.6
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	161	1915	633	360	2333	696	366	575	606	390	1015
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	1.11	0.13	0.97	1.21	0.26	0.42	0.19	0.30	0.37	0.13

Intersection Summary	
~	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.
m	Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	2002	77	330	2660	173	143	102	173	134	70	57
Future Volume (veh/h)	83	2002	77	330	2660	173	143	102	173	134	70	57
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1829	1900
Adj Flow Rate, veh/h	88	2130	82	351	2830	184	152	109	184	143	74	61
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	145	1915	577	356	2361	662	386	576	481	339	574	427
Arrive On Green	0.05	0.39	0.39	0.17	0.51	0.51	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1740	4940	1488	1774	4673	1310	1218	1900	1586	1087	1894	1409
Grp Volume(v), veh/h	88	2130	82	351	2830	184	152	109	184	143	67	68
Grp Sat Flow(s),veh/h/ln	1740	1647	1488	1774	1558	1310	1218	1900	1586	1087	1737	1567
Q Serve(g_s), s	3.9	50.4	4.6	21.6	65.7	10.5	13.5	5.5	11.9	14.6	3.6	4.1
Cycle Q Clear(g_c), s	3.9	50.4	4.6	21.6	65.7	10.5	17.6	5.5	11.9	20.1	3.6	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.90
Lane Grp Cap(c), veh/h	145	1915	577	356	2361	662	386	576	481	339	527	475
V/C Ratio(X)	0.61	1.11	0.14	0.99	1.20	0.28	0.39	0.19	0.38	0.42	0.13	0.14
Avail Cap(c_a), veh/h	158	1915	577	356	2361	662	386	576	481	339	527	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	39.8	25.8	43.3	32.2	18.5	39.4	33.5	35.7	40.9	32.8	33.0
Incr Delay (d2), s/veh	5.6	58.5	0.5	44.1	93.7	1.0	3.0	0.7	2.3	3.8	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	33.3	2.0	16.9	48.7	4.0	4.9	3.0	5.5	4.7	1.8	1.9
LnGrp Delay(d),s/veh	36.9	98.3	26.3	87.5	125.9	19.5	42.4	34.2	38.0	44.7	33.3	33.6
LnGrp LOS	D	F	C	F	F	B	D	C	D	D	C	C
Approach Vol, veh/h		2300			3365			445			278	
Approach Delay, s/veh		93.4			116.0			38.6			39.3	
Approach LOS		F			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	26.0	57.2		46.8	10.7	72.5		46.8
Change Period (Y+Rc), s	4.0	6.8		* 7.4	4.0	6.8		* 7.4
Max Green Setting (Gmax), s	22.0	50.4		* 39	7.7	64.7		* 39
Max Q Clear Time (g_c+I1), s	23.6	52.4		19.6	5.9	67.7		22.1
Green Ext Time (p_c), s	0.0	0.0		2.4	0.0	0.0		1.6

Intersection Summary		
HCM 2010 Ctrl Delay		99.1
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	161	112	266	57	77	168
Future Volume (vph)	161	112	266	57	77	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt			0.976			0.850
Flt Protected		0.971			0.950	
Satd. Flow (prot)	0	1579	1740	0	1671	1482
Flt Permitted		0.971			0.950	
Satd. Flow (perm)	0	1579	1740	0	1671	1482
Link Speed (k/h)		50	50		50	
Link Distance (m)		120.2	260.2		319.6	
Travel Time (s)		8.7	18.7		23.0	
Confl. Peds. (#/hr)					4	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	25%	5%	8%	0%	8%	9%
Adj. Flow (vph)	183	127	302	65	88	191
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	310	367	0	88	191
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	161	112	266	57	77	168
Future Vol, veh/h	161	112	266	57	77	168
Conflicting Peds, #/hr	0	0	0	0	4	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	25	5	8	0	8	9
Mvmt Flow	183	127	302	65	88	191

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	367	0	-	0	832	335
Stage 1	-	-	-	-	335	-
Stage 2	-	-	-	-	497	-
Critical Hdwy	4.35	-	-	-	6.48	6.29
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	2.425	-	-	-	3.572	3.381
Pot Cap-1 Maneuver	1075	-	-	-	331	691
Stage 1	-	-	-	-	711	-
Stage 2	-	-	-	-	599	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1075	-	-	-	270	691
Mov Cap-2 Maneuver	-	-	-	-	270	-
Stage 1	-	-	-	-	581	-
Stage 2	-	-	-	-	599	-

Approach	EB	WB	SB
HCM Control Delay, s	5.3	0	16.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1075	-	-	-	270	691
HCM Lane V/C Ratio	0.17	-	-	-	0.324	0.276
HCM Control Delay (s)	9	0	-	-	24.6	12.2
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q(veh)	0.6	-	-	-	1.4	1.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	25	0	46	0	2183	40	89	1930	0
Future Volume (vph)	0	0	0	25	0	46	0	2183	40	89	1930	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt					0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3539	0	1770	3008	0	1863	4471	1583	1770	4471	1863
Flt Permitted				0.757						0.040		
Satd. Flow (perm)	1863	3539	0	1410	3008	0	1863	4471	1583	75	4471	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					33				28			
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		94.5			82.6			537.5			902.9	
Travel Time (s)		6.8			5.9			24.2			40.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	27	0	50	0	2373	43	97	2098	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	27	50	0	0	2373	43	97	2098	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5		23.5	23.5		24.6	24.6	24.6	24.6	24.6	24.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	0
Act Effct Green (s)				7.9	7.9			103.6	103.6	103.6	103.6	
Actuated g/C Ratio				0.07	0.07			0.86	0.86	0.86	0.86	
v/c Ratio				0.29	0.22			0.62	0.03	1.52	0.54	
Control Delay				60.8	27.1			5.7	1.9	259.6	3.0	
Queue Delay				0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay				60.8	27.1			5.7	1.9	259.6	3.0	
LOS				E	C			A	A	F	A	
Approach Delay					38.9			5.6			14.3	
Approach LOS					D			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 105 (88%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.52			
Intersection Signal Delay: 10.3		Intersection LOS: B	
Intersection Capacity Utilization 66.9%		ICU Level of Service C	
Analysis Period (min) 15			
* User Entered Value			

Splits and Phases: 8: Trafalgar Road & New Road A

Lane Group	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	27	50	2373	43	97	2098
v/c Ratio	0.29	0.22	0.62	0.03	1.52	0.54
Control Delay	60.8	27.1	5.7	1.9	259.6	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.8	27.1	5.7	1.9	259.6	3.0
Queue Length 50th (m)	6.5	2.1	73.4	0.9	~31.9	38.2
Queue Length 95th (m)	16.2	8.6	139.5	m3.0	m#39.2	m68.3
Internal Link Dist (m)		58.6	513.5			878.9
Turn Bay Length (m)	25.0			45.0	65.0	
Base Capacity (vph)	287	640	3858	1370	64	3858
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.08	0.62	0.03	1.52	0.54

Intersection Summary

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	25	0	46	0	2183	40	89	1930	0
Future Volume (veh/h)	0	0	0	25	0	46	0	2183	40	89	1930	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	0	0	0	27	0	50	0	2373	43	97	2098	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	165	0	143	82	74	60	3812	1350	181	3812	1350
Arrive On Green	0.00	0.00	0.00	0.05	0.00	0.05	0.00	1.00	1.00	1.00	1.00	0.00
Sat Flow, veh/h	1349	3632	0	1774	1770	1583	195	4471	1583	142	4471	1583
Grp Volume(v), veh/h	0	0	0	27	0	50	0	2373	43	97	2098	0
Grp Sat Flow(s),veh/h/ln	1349	1770	0	1774	1770	1583	195	1490	1583	142	1490	1583
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.8	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	165	0	143	82	74	60	3812	1350	181	3812	1350
V/C Ratio(X)	0.00	0.00	0.00	0.19	0.00	0.68	0.00	0.62	0.03	0.54	0.55	0.00
Avail Cap(c_a), veh/h	273	723	0	422	361	323	60	3812	1350	181	3812	1350
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	55.4	0.0	56.3	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.6	0.0	10.4	0.0	0.8	0.0	10.9	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.9	0.0	1.9	0.0	0.3	0.0	0.5	0.2	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	56.0	0.0	66.7	0.0	0.8	0.0	10.9	0.6	0.0
LnGrp LOS				E		E		A	A	B	A	
Approach Vol, veh/h		0			77			2416			2195	
Approach Delay, s/veh		0.0			63.0			0.8			1.0	
Approach LOS					E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		108.9		11.1		108.9		11.1
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		2.0		0.0		2.0		5.7
Green Ext Time (p_c), s		54.0		0.0		58.0		0.3

Intersection Summary

HCM 2010 Ctrl Delay	1.9
HCM 2010 LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	72	57	8	41	0	30	0	8	0	0	0
Future Volume (vph)	0	72	57	8	41	0	30	0	8	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.940						0.968				
Flt Protected					0.992			0.962				
Satd. Flow (prot)	0	1751	0	0	1848	0	0	3296	0	0	3539	0
Flt Permitted					0.992			0.962				
Satd. Flow (perm)	0	1751	0	0	1848	0	0	3296	0	0	3539	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		41.7			205.9			80.1			70.6	
Travel Time (s)		3.0			14.8			5.8			5.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	78	62	9	45	0	33	0	9	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	140	0	0	54	0	0	42	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
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)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	72	57	8	41	0	30	0	8	0	0	0
Future Vol, veh/h	0	72	57	8	41	0	30	0	8	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	78	62	9	45	0	33	0	9	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	45	0	0	140	0	0	172	172	109	177	203	45
Stage 1	-	-	-	-	-	-	109	109	-	63	63	-
Stage 2	-	-	-	-	-	-	63	63	-	114	140	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1563	-	-	1443	-	-	791	721	945	785	693	1025
Stage 1	-	-	-	-	-	-	896	805	-	948	842	-
Stage 2	-	-	-	-	-	-	948	842	-	891	781	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1563	-	-	1443	-	-	787	717	945	774	689	1025
Mov Cap-2 Maneuver	-	-	-	-	-	-	787	717	-	774	689	-
Stage 1	-	-	-	-	-	-	896	805	-	948	837	-
Stage 2	-	-	-	-	-	-	942	837	-	883	781	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.2	9.6	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	787	945	1563	-	-	1443	-	-	-	-
HCM Lane V/C Ratio	0.041	0.009	-	-	-	0.006	-	-	-	-
HCM Control Delay (s)	9.8	8.8	0	-	-	7.5	0	-	0	0
HCM Lane LOS	A	A	A	-	-	A	A	-	A	A
HCM 95th %tile Q(veh)	0.1	0	0	-	-	0	-	-	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	30	56	84	8	8	57
Future Volume (vph)	30	56	84	8	8	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.912				0.869	
Flt Protected	0.983			0.956		
Satd. Flow (prot)	1670	0	0	3383	3076	0
Flt Permitted	0.983			0.956		
Satd. Flow (perm)	1670	0	0	3383	3076	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	51.6			89.3	74.2	
Travel Time (s)	3.7			6.4	5.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	61	91	9	9	62
Shared Lane Traffic (%)						
Lane Group Flow (vph)	94	0	0	100	71	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	23.1%	ICU Level of Service	A
Analysis Period (min)	15		

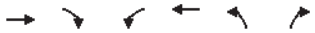
Intersection	
Int Delay, s/veh	6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	56	84	8	8	57
Future Vol, veh/h	30	56	84	8	8	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	61	91	9	9	62

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	227	36	71	0	-	0
Stage 1	40	-	-	-	-	-
Stage 2	187	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	741	1029	1527	-	-	-
Stage 1	977	-	-	-	-	-
Stage 2	826	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	697	1029	1527	-	-	-
Mov Cap-2 Maneuver	697	-	-	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	826	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	6.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1527	-	882	-	-
HCM Lane V/C Ratio	0.06	-	0.106	-	-
HCM Control Delay (s)	7.5	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	-	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	0	80	0	0	49	0
Future Volume (vph)	0	80	0	0	49	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865					
Flt Protected					0.950	
Satd. Flow (prot)	1611	0	0	1863	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	1611	0	0	1863	1770	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	205.9			49.4	119.6	
Travel Time (s)	14.8			3.6	8.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	87	0	0	53	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	87	0	0	0	53	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	15.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	80	0	0	49	0
Future Vol, veh/h	0	80	0	0	49	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	87	0	0	53	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	87	0	45	44
Stage 1	-	-	-	-	44	-
Stage 2	-	-	-	-	1	-
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	-	965	1026
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	1022	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1509	-	965	1026
Mov Cap-2 Maneuver	-	-	-	-	965	-
Stage 1	-	-	-	-	978	-
Stage 2	-	-	-	-	1022	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	965	-	-	1509	-
HCM Lane V/C Ratio	0.055	-	-	-	-
HCM Control Delay (s)	8.9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Appendix G

Synchro Reports – Sensitivity

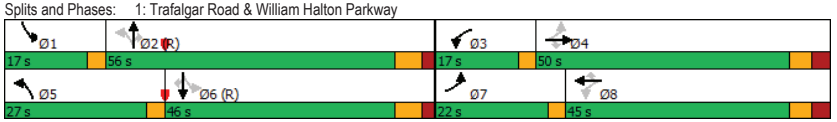
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	360	661	235	171	1068	49	395	1627	111	278	1089	157
Future Volume (vph)	360	661	235	171	1068	49	395	1627	111	278	1089	157
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4262	1553	1687	4515	1429
Flt Permitted	0.098			0.286			0.095			0.102		
Satd. Flow (perm)	174	3610	1583	543	3374	1553	180	4262	1553	181	4515	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			242			124			101			162
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	371	681	242	176	1101	51	407	1677	114	287	1123	162
Shared Lane Traffic (%)												
Lane Group Flow (vph)	371	681	242	176	1101	51	407	1677	114	287	1123	162
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	22.0	50.0	50.0	17.0	45.0	45.0	27.0	56.0	56.0	17.0	46.0	46.0
Total Split (%)	15.7%	35.7%	35.7%	12.1%	32.1%	32.1%	19.3%	40.0%	40.0%	12.1%	32.9%	32.9%
Maximum Green (s)	19.0	43.0	43.0	14.0	38.0	38.0	24.0	49.1	49.1	14.0	39.1	39.1
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	64.0	44.4	44.4	54.6	38.0	38.0	70.0	49.1	49.1	57.0	39.1	39.1
Actuated g/C Ratio	0.46	0.32	0.32	0.39	0.27	0.27	0.50	0.35	0.35	0.41	0.28	0.28
v/c Ratio	1.31	0.60	0.36	0.54	1.20	0.10	1.11	1.12	0.19	1.28	0.89	0.31
Control Delay	194.6	43.1	5.7	29.9	145.5	0.4	117.1	106.4	8.0	189.8	58.3	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	194.6	43.1	5.7	29.9	145.5	0.4	117.1	106.4	8.0	189.8	58.3	7.1
LOS	F	D	A	C	F	A	F	F	A	F	E	A
Approach Delay		79.6			124.6			103.3			77.1	
Approach LOS		E			F			F			E	

Intersection Summary		
Area Type:	Other	
Cycle Length: 140		
Actuated Cycle Length: 140		
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green		
Natural Cycle: 120		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 1.31		
Intersection Signal Delay: 96.5	Intersection LOS: F	
Intersection Capacity Utilization 114.6%	ICU Level of Service H	
Analysis Period (min) 15		

* User Entered Value

Splits and Phases: 1: Trafalgar Road & William Halton Parkway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	371	681	242	176	1101	51	407	1677	114	287	1123	162
v/c Ratio	1.31	0.60	0.36	0.54	1.20	0.10	1.11	1.12	0.19	1.28	0.89	0.31
Control Delay	194.6	43.1	5.7	29.9	145.5	0.4	117.1	106.4	8.0	189.8	58.3	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	194.6	43.1	5.7	29.9	145.5	0.4	117.1	106.4	8.0	189.8	58.3	7.1
Queue Length 50th (m)	~121.6	89.0	0.0	30.4	~204.6	0.0	~116.6	~234.2	2.5	~89.0	131.3	0.0
Queue Length 95th (m)	#187.8	111.0	20.0	46.8	#248.8	0.0	#184.7	#269.5	16.3	#149.1	#154.5	17.7
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	284	1144	666	343	915	511	368	1494	610	224	1260	515
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.31	0.60	0.36	0.51	1.20	0.10	1.11	1.12	0.19	1.28	0.89	0.31

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	360	661	235	171	1068	49	395	1627	111	278	1089	157
Future Volume (veh/h)	360	661	235	171	1068	49	395	1627	111	278	1089	157
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	371	681	242	176	1101	51	407	1677	114	287	1123	162
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	281	1164	511	306	916	421	379	1495	545	221	1261	399
Arrive On Green	0.14	0.32	0.32	0.08	0.27	0.27	0.17	0.35	0.35	0.10	0.28	0.28
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4262	1553	1691	4515	1429
Grp Volume(v), veh/h	371	681	242	176	1101	51	407	1677	114	287	1123	162
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1421	1553	1691	1505	1429
Q Serve(g_s), s	19.0	22.1	17.1	9.7	38.0	3.5	24.0	49.1	7.2	14.0	33.4	12.9
Cycle Q Clear(g_c), s	19.0	22.1	17.1	9.7	38.0	3.5	24.0	49.1	7.2	14.0	33.4	12.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	281	1164	511	306	916	421	379	1495	545	221	1261	399
V/C Ratio(X)	1.32	0.58	0.47	0.58	1.20	0.12	1.07	1.12	0.21	1.30	0.89	0.41
Avail Cap(c_a), veh/h	281	1164	511	334	916	421	379	1495	545	221	1261	399
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	39.6	37.9	33.3	51.0	38.4	42.0	45.5	31.8	41.1	48.4	41.0
Incr Delay (d2), s/veh	167.0	1.2	1.5	2.0	101.5	0.3	67.0	64.4	0.9	164.6	9.7	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.9	11.2	7.7	5.0	30.6	1.5	21.7	28.1	3.2	18.6	15.0	5.4
LnGrp Delay(d),s/veh	211.0	40.8	39.4	35.3	152.5	38.7	109.0	109.8	32.7	205.7	58.1	44.1
LnGrp LOS	F	D	D	D	F	D	F	F	C	F	E	D
Approach Vol, veh/h		1294			1328			2198			1572	
Approach Delay, s/veh		89.3			132.6			105.7			83.6	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	56.0	14.8	52.2	27.0	46.0	22.0	45.0
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	14.0	* 49	14.0	43.0	24.0	* 39	19.0	38.0
Max Q Clear Time (g_c+I1), s	16.0	51.1	11.7	24.1	26.0	35.4	21.0	40.0
Green Ext Time (p_c), s	0.0	0.0	0.1	10.3	0.0	3.2	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	102.5
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

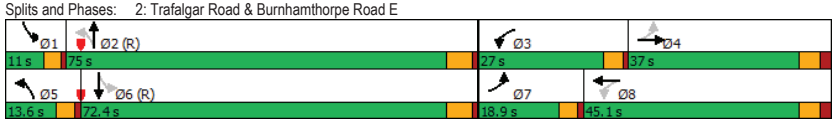
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	189	303	79	319	174	123	87	1648	120	149	1182	142
Future Volume (vph)	189	303	79	319	174	123	87	1648	120	149	1182	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.80	*0.80	1.00	*0.80	*0.80
Frt		0.969			0.938			0.990			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1790	0	1805	1741	0	1770	4201	0	1805	4175	0
Flt Permitted	0.385			0.113			0.061			0.060		
Satd. Flow (perm)	710	1790	0	215	1741	0	114	4201	0	114	4175	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			23			9			15	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	208	333	87	351	191	135	96	1811	132	164	1299	156
Shared Lane Traffic (%)												
Lane Group Flow (vph)	208	420	0	351	326	0	96	1943	0	164	1455	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	20.0		7.0	20.0	
Minimum Split (s)	9.5	16.0		9.5	16.0		9.5	26.0		11.0	26.0	
Total Split (s)	18.9	37.0		27.0	45.1		13.6	75.0		11.0	72.4	
Total Split (%)	12.6%	24.7%		18.0%	30.1%		9.1%	50.0%		7.3%	48.3%	
Maximum Green (s)	14.4	31.0		22.5	39.1		9.1	69.0		7.0	66.4	
Yellow Time (s)	3.5	3.7		3.5	3.7		3.5	4.6		3.0	4.6	
All-Red Time (s)	1.0	2.3		1.0	2.3		1.0	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	6.0		4.5	6.0		4.5	6.0		4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes				Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Walk Time (s)		0.0			0.0			0.0			0.0	
Flash Dont Walk (s)		7.0			7.0			7.0			7.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	46.4	31.0		59.5	39.6		79.0	69.0		76.0	67.0	
Actuated g/C Ratio	0.31	0.21		0.40	0.26		0.53	0.46		0.51	0.45	
v/c Ratio	0.66	1.12		1.09	0.68		0.63	1.00		1.21	0.78	
Control Delay	43.6	133.8		116.2	54.6		41.4	61.1		172.2	38.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	43.6	133.8		116.2	54.6		41.4	61.1		172.2	38.4	
LOS	D	F		F	D		D	E		F	D	
Approach Delay		104.0			86.5			60.2			52.0	
Approach LOS		F			F			E			D	

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.21
Intersection Signal Delay: 66.6 Intersection LOS: E
Intersection Capacity Utilization 98.3% ICU Level of Service F
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	208	420	351	326	96	1943	164	1455
v/c Ratio	0.66	1.12	1.09	0.68	0.63	1.00	1.21	0.78
Control Delay	43.6	133.8	116.2	54.6	41.4	61.1	172.2	38.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.6	133.8	116.2	54.6	41.4	61.1	172.2	38.4
Queue Length 50th (m)	44.3	~148.8	~105.3	86.5	14.1	~251.3	~45.2	158.7
Queue Length 95th (m)	65.8	#219.2	#171.8	123.6	32.4	#297.1	#95.2	182.0
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	322	376	323	476	160	1937	136	1873
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	1.12	1.09	0.68	0.60	1.00	1.21	0.78

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	303	79	319	174	123	87	1648	120	149	1182	142
Future Volume (veh/h)	189	303	79	319	174	123	87	1648	120	149	1182	142
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1848	1900	1900	1856	1900	1863	1768	1900	1900	1768	1900
Adj Flow Rate, veh/h	208	333	87	351	191	135	96	1811	132	164	1299	156
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	309	292	76	319	264	187	196	1948	142	145	1860	223
Arrive On Green	0.10	0.21	0.21	0.15	0.26	0.26	0.04	0.46	0.46	0.05	0.46	0.46
Sat Flow, veh/h	1757	1413	369	1810	1014	716	1774	4235	308	1810	4028	484
Grp Volume(v), veh/h	208	0	420	351	0	326	96	1208	735	164	912	543
Grp Sat Flow(s),veh/h/ln	1757	0	1783	1810	0	1730	1774	1415	1714	1810	1414	1683
Q Serve(g_s), s	14.0	0.0	31.0	22.5	0.0	25.7	4.3	60.4	60.8	7.0	38.4	38.4
Cycle Q Clear(g_c), s	14.0	0.0	31.0	22.5	0.0	25.7	4.3	60.4	60.8	7.0	38.4	38.4
Prop In Lane	1.00		0.21	1.00		0.41	1.00		0.18	1.00		0.29
Lane Grp Cap(c), veh/h	309	0	368	319	0	451	196	1301	788	145	1306	777
V/C Ratio(X)	0.67	0.00	1.14	1.10	0.00	0.72	0.49	0.93	0.93	1.13	0.70	0.70
Avail Cap(c_a), veh/h	309	0	368	319	0	451	230	1301	788	145	1306	777
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	0.0	59.5	47.9	0.0	50.5	26.3	38.2	38.3	38.7	32.1	32.1
Incr Delay (d2), s/veh	5.6	0.0	90.7	79.5	0.0	5.6	1.9	12.9	19.2	113.8	3.1	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.0	24.5	20.3	0.0	13.0	2.2	25.8	33.0	10.6	15.5	18.9
LnGrp Delay(d),s/veh	48.3	0.0	150.2	127.4	0.0	56.1	28.2	51.0	57.5	152.6	35.2	37.2
LnGrp LOS	D		F	F		E	C	D	E	F	D	D
Approach Vol, veh/h		628			677			2039			1619	
Approach Delay, s/veh		116.4			93.1			52.3			47.8	
Approach LOS		F			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	75.0	27.0	37.0	10.7	75.3	18.9	45.1
Change Period (Y+Rc), s	4.0	* 6	4.5	6.0	4.5	* 6	4.5	6.0
Max Green Setting (Gmax), s	7.0	* 69	22.5	31.0	9.1	* 66	14.4	39.1
Max Q Clear Time (g_c+I1), s	9.0	62.8	24.5	33.0	6.3	40.4	16.0	27.7
Green Ext Time (p_c), s	0.0	6.0	0.0	0.0	0.1	19.9	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	64.5
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

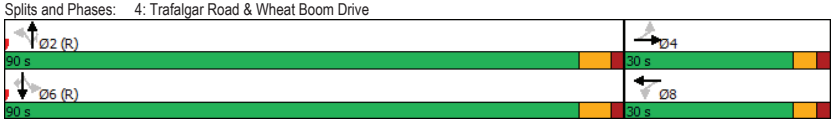
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	19	112	0	137	0	1528	58	42	1809	0
Future Volume (vph)	0	0	19	112	0	137	0	1528	58	42	1809	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3008	0	1327	2379	0	1863	4343	1292	1556	4262	1863
Flt Permitted				0.743						0.094		
Satd. Flow (perm)	1863	3008	0	1038	2379	0	1863	4343	1292	154	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33			46				59			
Link Speed (k/h)		50			50			60			80	
Link Distance (m)		170.2			342.3			409.5			286.4	
Travel Time (s)		12.3			24.6			24.6			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Heavy Vehicles (%)	2%	2%	2%	36%	2%	29%	2%	5%	25%	16%	7%	2%
Adj. Flow (vph)	0	0	21	120	0	147	0	1643	62	45	1945	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	0	120	147	0	0	1643	62	45	1945	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	20.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	30.0	30.0		30.0	30.0		90.0	90.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%		25.0%	25.0%		75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	24.5	24.5		24.5	24.5		83.4	83.4	83.4	83.4	83.4	83.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	4.6	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	6.6	6.6	6.6
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0			
Pedestrian Calls (#/hr)	0	0					0	0	0			
Act Effct Green (s)		18.4		18.4	18.4			89.5	89.5	89.5	89.5	
Actuated g/C Ratio		0.15		0.15	0.15			0.75	0.75	0.75	0.75	
v/c Ratio		0.04		0.75	0.36			0.51	0.06	0.39	0.61	
Control Delay		7.1		75.8	32.1			7.4	1.7	16.5	7.3	
Queue Delay		0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay		7.1		75.8	32.1			7.4	1.7	16.5	7.3	
LOS		A		E	C			A	A	B	A	
Approach Delay		7.1			51.8			7.2			7.6	
Approach LOS		A			D			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 10.4 Intersection LOS: B
Intersection Capacity Utilization 57.9% ICU Level of Service B
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	21	120	147	1643	62	45	1945
v/c Ratio	0.04	0.75	0.36	0.51	0.06	0.39	0.61
Control Delay	7.1	75.8	32.1	7.4	1.7	16.5	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	75.8	32.1	7.4	1.7	16.5	7.3
Queue Length 50th (m)	0.0	28.6	11.7	61.7	0.2	3.9	92.3
Queue Length 95th (m)	2.4	48.4	21.0	87.7	4.4	m14.2	103.5
Internal Link Dist (m)	146.2		318.3	385.5			262.4
Turn Bay Length (m)		25.0			45.0	65.0	
Base Capacity (vph)	640	211	522	3239	978	114	3178
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.57	0.28	0.51	0.06	0.39	0.61

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	19	112	0	137	0	1528	58	42	1809	0
Future Volume (veh/h)	0	0	19	112	0	137	0	1528	58	42	1809	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1397	1473	1900	1863	1810	1520	1638	1776	1863
Adj Flow Rate, veh/h	0	0	21	120	0	147	0	1643	62	45	1945	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Percent Heavy Veh, %	2	2	2	36	2	29	2	5	25	16	7	2
Cap, veh/h	60	264	236	203	209	187	60	3256	969	210	3196	1187
Arrive On Green	0.00	0.00	0.15	0.15	0.00	0.15	0.00	0.75	0.75	1.00	1.00	0.00
Sat Flow, veh/h	1236	1770	1583	1039	1399	1252	226	4343	1292	251	4262	1583
Grp Volume(v), veh/h	0	0	21	120	0	147	0	1643	62	45	1945	0
Grp Sat Flow(s),veh/h/ln	1236	1770	1583	1039	1399	1252	226	1448	1292	251	1421	1583
Q Serve(g_s), s	0.0	0.0	1.4	13.5	0.0	13.6	0.0	18.3	1.5	5.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.4	14.9	0.0	13.6	0.0	18.3	1.5	24.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	264	236	203	209	187	60	3256	969	210	3196	1187
V/C Ratio(X)	0.00	0.00	0.09	0.59	0.00	0.79	0.00	0.50	0.06	0.21	0.61	0.00
Avail Cap(c_a), veh/h	128	361	323	260	286	256	60	3256	969	210	3196	1187
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.84	0.84	0.00
Uniform Delay (d), s/veh	0.0	0.0	44.0	50.4	0.0	49.2	0.0	6.0	3.9	2.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.2	2.7	0.0	10.6	0.0	0.6	0.1	1.9	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	4.0	0.0	5.2	0.0	7.3	0.6	0.5	0.2	0.0
LnGrp Delay(d),s/veh	0.0	0.0	44.2	53.1	0.0	59.8	0.0	6.6	4.1	4.4	0.7	0.0
LnGrp LOS			D	D		E		A	A	A	A	
Approach Vol, veh/h		21			267			1705			1990	
Approach Delay, s/veh		44.2			56.8			6.5			0.8	
Approach LOS		D			E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		96.6		23.4		96.6		23.4
Change Period (Y+Rc), s		6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s		83.4		24.5		83.4		24.5
Max Q Clear Time (g_c+I1), s		20.3		3.4		26.0		16.9
Green Ext Time (p_c), s		25.9		0.1		35.1		1.0

Intersection Summary

HCM 2010 Ctrl Delay	7.2
HCM 2010 LOS	A

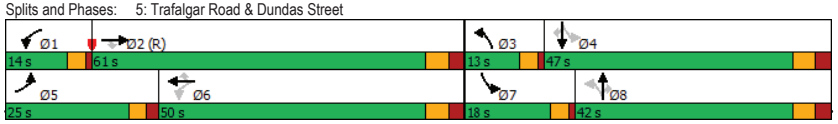
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	468	2062	280	226	1230	130	214	1021	149	302	1187	360
Future Volume (vph)	468	2062	280	226	1230	130	214	1021	149	302	1187	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98				1.00					0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	4343	1538	1736	4343	1524
Flt Permitted	0.950			0.092			0.113			0.102		
Satd. Flow (perm)	3400	5085	1557	163	4715	1292	206	4343	1538	186	4343	1496
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			190			166			165			253
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	478	2104	286	231	1255	133	218	1042	152	308	1211	367
Shared Lane Traffic (%)												
Lane Group Flow (vph)	478	2104	286	231	1255	133	218	1042	152	308	1211	367
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5	16.5	11.0	16.5	16.5
Total Split (s)	25.0	61.0	61.0	14.0	50.0	50.0	13.0	42.0	42.0	18.0	47.0	47.0
Total Split (%)	18.5%	45.2%	45.2%	10.4%	37.0%	37.0%	9.6%	31.1%	31.1%	13.3%	34.8%	34.8%
Maximum Green (s)	20.0	54.6	54.6	10.0	43.6	43.6	9.0	35.5	35.5	14.0	40.5	40.5
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	20.1	54.6	54.6	56.1	43.6	43.6	46.9	35.4	35.4	55.9	40.4	40.4
Actuated g/C Ratio	0.15	0.40	0.40	0.42	0.32	0.32	0.35	0.26	0.26	0.41	0.30	0.30
v/c Ratio	0.95	1.02	0.39	1.28	0.82	0.25	1.26	0.91	0.29	1.30	0.93	0.59
Control Delay	85.7	65.6	10.9	191.5	47.7	3.2	183.9	61.1	5.9	193.1	59.2	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.7	65.6	10.9	191.5	47.7	3.2	183.9	61.1	5.9	193.1	59.2	16.3
LOS	F	E	B	F	D	A	F	E	A	F	E	B
Approach Delay		63.5			64.6			74.1			72.7	
Approach LOS		E			E			E			E	

Intersection Summary		
Area Type:	Other	
Cycle Length: 135		
Actuated Cycle Length: 135		
Offset: 18.2 (13%), Referenced to phase 2:EBT, Start of Green		
Natural Cycle: 110		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 1.30		
Intersection Signal Delay: 67.9	Intersection LOS: E	
Intersection Capacity Utilization 106.2%	ICU Level of Service G	
Analysis Period (min) 15		

* User Entered Value

Splits and Phases: 5: Trafalgar Road & Dundas Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	478	2104	286	231	1255	133	218	1042	152	308	1211	367
v/c Ratio	0.95	1.02	0.39	1.28	0.82	0.25	1.26	0.91	0.29	1.30	0.93	0.59
Control Delay	85.7	65.6	10.9	191.5	47.7	3.2	183.9	61.1	5.9	193.1	59.2	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.7	65.6	10.9	191.5	47.7	3.2	183.9	61.1	5.9	193.1	59.2	16.3
Queue Length 50th (m)	69.4	~229.5	16.9	~65.8	118.8	0.0	~59.4	118.7	0.0	~93.4	137.6	25.3
Queue Length 95th (m)	#103.9	#259.5	40.0	#120.8	138.5	8.2	#113.2	#148.7	14.3	#154.3	#171.0	59.7
Internal Link Dist (m)		530.9			391.5			307.2			385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Base Capacity (vph)	505	2056	742	181	1522	529	173	1142	526	237	1302	625
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.95	1.02	0.39	1.28	0.82	0.25	1.26	0.91	0.29	1.30	0.93	0.59

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	468	2062	280	226	1230	130	214	1021	149	302	1187	360
Future Volume (veh/h)	468	2062	280	226	1230	130	214	1021	149	302	1187	360
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1810	1827	1810	1792
Adj Flow Rate, veh/h	478	2104	286	231	1255	133	218	1042	152	308	1211	367
Adj No. of Lanes	2	3	1	1	3	1	1	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	505	2066	641	179	1531	418	178	1134	399	247	1295	452
Arrive On Green	0.15	0.41	0.41	0.07	0.32	0.32	0.07	0.26	0.26	0.10	0.30	0.30
Sat Flow, veh/h	3408	5085	1579	1691	4715	1287	1740	4343	1529	1740	4343	1516
Grp Volume(v), veh/h	478	2104	286	231	1255	133	218	1042	152	308	1211	367
Grp Sat Flow(s),veh/h/ln	1704	1695	1579	1691	1572	1287	1740	1448	1529	1740	1448	1516
Q Serve(g_s), s	18.8	54.8	17.7	10.0	33.1	10.5	9.0	31.5	11.0	14.0	36.6	30.3
Cycle Q Clear(g_c), s	18.8	54.8	17.7	10.0	33.1	10.5	9.0	31.5	11.0	14.0	36.6	30.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	505	2066	641	179	1531	418	178	1134	399	247	1295	452
V/C Ratio(X)	0.95	1.02	0.45	1.29	0.82	0.32	1.23	0.92	0.38	1.25	0.94	0.81
Avail Cap(c_a), veh/h	505	2066	641	179	1531	418	178	1142	402	247	1303	455
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.0	40.1	29.1	36.8	41.9	34.3	41.5	48.5	40.9	36.1	46.1	43.9
Incr Delay (d2), s/veh	27.3	24.6	2.2	167.1	4.3	1.2	141.2	11.8	0.7	141.2	12.6	10.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.7	30.3	8.1	14.9	14.9	3.9	11.8	13.8	4.7	18.8	16.2	14.0
LnGrp Delay(d),s/veh	84.3	64.6	31.3	203.9	46.3	35.5	182.7	60.3	41.6	177.3	58.7	54.7
LnGrp LOS	F	F	C	F	D	D	F	E	D	F	E	D
Approach Vol, veh/h		2868			1619			1412			1886	
Approach Delay, s/veh		64.6			67.9			77.2			77.3	
Approach LOS		E			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	61.2	13.0	46.8	25.0	50.2	18.0	41.8
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	10.0	54.6	9.0	40.5	20.0	43.6	14.0	35.5
Max Q Clear Time (g_c+I1), s	12.0	56.8	11.0	38.6	20.8	35.1	16.0	33.5
Green Ext Time (p_c), s	0.0	0.0	0.0	1.6	0.0	7.5	0.0	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	70.6
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	2456	40	164	1441	93	71	44	186	157	95	121
Future Volume (vph)	45	2456	40	164	1441	93	71	44	186	157	95	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor	1.00		0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.916	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3136	0
Flt Permitted	0.157			0.049			0.602			0.726		
Satd. Flow (perm)	287	4940	1469	91	4673	1281	1091	1900	1576	1362	3136	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			65			99			136		49	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	48	2613	43	174	1533	99	76	47	198	167	101	129
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	2613	43	174	1533	99	76	47	198	167	230	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	2	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	20.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	26.8	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	85.0	85.0	85.0	15.0	100.0	100.0	40.0	40.0	40.0	40.0	40.0	
Total Split (%)	60.7%	60.7%	60.7%	10.7%	71.4%	71.4%	28.6%	28.6%	28.6%	28.6%	28.6%	
Maximum Green (s)	78.2	78.2	78.2	11.0	93.2	93.2	32.6	32.6	32.6	32.6	32.6	
Yellow Time (s)	4.2	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.6	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.8	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)	7.0	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	24.0	24.0	24.0		24.0	24.0	24.0	24.0	24.0	24.0	24.0	
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	78.3	78.3	78.3	96.0	93.2	93.2	32.6	32.6	32.6	32.6	32.6	
Actuated g/C Ratio	0.56	0.56	0.56	0.69	0.67	0.67	0.23	0.23	0.23	0.23	0.23	
v/c Ratio	0.30	0.95	0.05	0.91	0.49	0.11	0.30	0.11	0.42	0.53	0.30	
Control Delay	22.8	37.5	1.5	78.6	12.3	1.8	48.2	43.2	18.0	54.0	35.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	22.8	37.5	1.5	78.6	12.3	1.8	48.2	43.2	18.0	54.0	35.7	
LOS	C	D	A	E	B	A	D	D	B	D	D	
Approach Delay		36.7			18.1			28.9			43.4	
Approach LOS		D			B			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 30.3		Intersection LOS: C	
Intersection Capacity Utilization 112.4%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 6: Postridge Drive & Dundas Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	48	2613	43	174	1533	99	76	47	198	167	230
v/c Ratio	0.30	0.95	0.05	0.91	0.49	0.11	0.30	0.11	0.42	0.53	0.30
Control Delay	22.8	37.5	1.5	78.6	12.3	1.8	48.2	43.2	18.0	54.0	35.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	37.5	1.5	78.6	12.3	1.8	48.2	43.2	18.0	54.0	35.7
Queue Length 50th (m)	7.2	252.1	0.0	33.7	75.8	0.0	18.4	10.9	14.6	42.9	22.7
Queue Length 95th (m)	17.6	278.3	2.9	#79.4	86.7	6.2	34.4	22.3	38.5	68.4	35.5
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	160	2764	850	194	3110	885	254	442	471	317	767
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.95	0.05	0.90	0.49	0.11	0.30	0.11	0.42	0.53	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	2456	40	164	1441	93	71	44	186	157	95	121
Future Volume (veh/h)	45	2456	40	164	1441	93	71	44	186	157	95	121
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1825	1900
Adj Flow Rate, veh/h	48	2613	43	174	1533	99	76	47	198	167	101	129
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	203	2763	833	197	3111	873	233	442	369	293	404	357
Arrive On Green	0.56	0.56	0.56	0.08	0.67	0.67	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	301	4940	1490	1774	4673	1311	1117	1900	1583	1133	1734	1535
Grp Volume(v), veh/h	48	2613	43	174	1533	99	76	47	198	167	101	129
Grp Sat Flow(s),veh/h/ln	301	1647	1490	1774	1558	1311	1117	1900	1583	1133	1734	1535
Q Serve(g_s), s	13.2	69.3	1.8	8.9	22.8	3.8	8.6	2.7	15.4	19.0	6.6	9.9
Cycle Q Clear(g_c), s	21.2	69.3	1.8	8.9	22.8	3.8	18.4	2.7	15.4	21.8	6.6	9.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	203	2763	833	197	3111	873	233	442	369	293	404	357
V/C Ratio(X)	0.24	0.95	0.05	0.88	0.49	0.11	0.33	0.11	0.54	0.57	0.25	0.36
Avail Cap(c_a), veh/h	203	2763	833	198	3111	873	233	442	369	293	404	357
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	28.9	14.0	45.5	11.6	8.5	52.7	42.2	47.1	50.8	43.7	45.0
Incr Delay (d2), s/veh	2.7	8.4	0.1	34.2	0.6	0.3	3.7	0.5	5.5	7.8	1.5	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	33.6	0.8	8.5	10.0	1.4	2.9	1.5	7.3	6.6	3.3	4.5
LnGrp Delay(d),s/veh	23.3	37.3	14.1	79.7	12.2	8.7	56.4	42.7	52.6	58.6	45.2	47.8
LnGrp LOS	C	D	B	E	B	A	E	D	D	E	D	D
Approach Vol, veh/h		2704			1806			321			397	
Approach Delay, s/veh		36.7			18.5			52.1			51.7	
Approach LOS		D			B			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	14.9	85.1		40.0		100.0		40.0
Change Period (Y+Rc), s	4.0	6.8		* 7.4		6.8		* 7.4
Max Green Setting (Gmax), s	11.0	78.2		* 33		93.2		* 33
Max Q Clear Time (g_c+I1), s	10.9	71.3		20.4		24.8		23.8
Green Ext Time (p_c), s	0.0	6.7		1.3		24.6		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	32.5
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

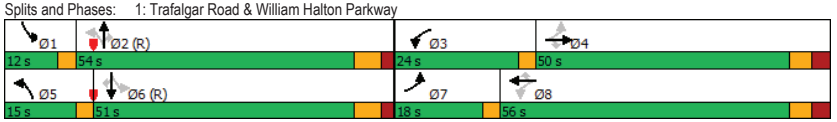
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	393	318	137	605	1797	34	355	2053	92	216	1493	610
Future Volume (vph)	393	318	137	605	1797	34	355	2053	92	216	1493	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	3610	1583	1805	3374	1553	1805	4262	1553	1687	4515	1429
Flt Permitted	0.093			0.478			0.085			0.091		
Satd. Flow (perm)	165	3610	1583	908	3374	1553	162	4262	1553	162	4515	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			141			77			101			236
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		450.9			568.2			463.0			536.6	
Travel Time (s)		27.1			34.1			20.8			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	7%	0%	2%	0%	7%	4%	0%	7%	4%	7%	1%	13%
Adj. Flow (vph)	405	328	141	624	1853	35	366	2116	95	223	1539	629
Shared Lane Traffic (%)												
Lane Group Flow (vph)	405	328	141	624	1853	35	366	2116	95	223	1539	629
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	10.0	27.0	27.0	10.0	27.0	27.0	10.0	26.9	26.9	10.0	26.9	26.9
Total Split (s)	18.0	50.0	50.0	24.0	56.0	56.0	15.0	54.0	54.0	12.0	51.0	51.0
Total Split (%)	12.9%	35.7%	35.7%	17.1%	40.0%	40.0%	10.7%	38.6%	38.6%	8.6%	36.4%	36.4%
Maximum Green (s)	15.0	43.0	43.0	21.0	49.0	49.0	12.0	47.1	47.1	9.0	44.1	44.1
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	4.6	4.6	3.0	4.6	4.6
All-Red Time (s)	0.0	3.3	3.3	0.0	3.3	3.3	0.0	2.3	2.3	0.0	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	7.0	7.0	3.0	7.0	7.0	3.0	6.9	6.9	3.0	6.9	6.9
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	5.0
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		24.0	24.0		24.0	24.0		29.0	29.0		29.0	29.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	62.0	43.0	43.0	71.0	49.0	49.0	63.0	47.1	47.1	57.0	44.1	44.1
Actuated g/C Ratio	0.44	0.31	0.31	0.51	0.35	0.35	0.45	0.34	0.34	0.41	0.32	0.32
v/c Ratio	1.72	0.30	0.24	1.05	1.57	0.06	1.72	1.48	0.16	1.37	1.08	1.03
Control Delay	367.4	37.9	6.4	79.6	293.1	0.2	358.2	254.5	15.8	227.5	94.5	73.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	367.4	37.9	6.4	79.6	293.1	0.2	358.2	254.5	15.8	227.5	94.5	73.5
LOS	F	D	A	E	F	A	F	F	B	F	F	E
Approach Delay		185.5			236.0			260.5			101.4	
Approach LOS		F			F			F			F	

Intersection Summary		
Area Type:	Other	
Cycle Length: 140		
Actuated Cycle Length: 140		
Offset: 137 (98%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green		
Natural Cycle: 140		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 1.72		
Intersection Signal Delay: 199.7	Intersection LOS: F	
Intersection Capacity Utilization 141.3%	ICU Level of Service H	
Analysis Period (min) 15		

* User Entered Value

Splits and Phases: 1: Trafalgar Road & William Halton Parkway



Queues
1: Trafalgar Road & William Halton Parkway

Future Total 10 Year Horizon - Sensitivity
PM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	405	328	141	624	1853	35	366	2116	95	223	1539	629
v/c Ratio	1.72	0.30	0.24	1.05	1.57	0.06	1.72	1.48	0.16	1.37	1.08	1.03
Control Delay	367.4	37.9	6.4	79.6	293.1	0.2	358.2	254.5	15.8	227.5	94.5	73.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	367.4	37.9	6.4	79.6	293.1	0.2	358.2	254.5	15.8	227.5	94.5	73.5
Queue Length 50th (m)	~157.8	38.3	0.0	~146.1	~401.7	0.0	~141.7	~349.2	6.5	~68.5	~208.5	~145.2
Queue Length 95th (m)	#225.9	52.1	15.9	#254.1	#445.7	0.0	m#125.7	m#303.6	m5.4	#123.7	#243.8	#221.9
Internal Link Dist (m)		426.9			544.2			439.0			512.6	
Turn Bay Length (m)	220.0		75.0	160.0		185.0	210.0		70.0	180.0		175.0
Base Capacity (vph)	236	1108	583	595	1180	593	213	1433	589	163	1422	611
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.72	0.30	0.24	1.05	1.57	0.06	1.72	1.48	0.16	1.37	1.08	1.03

Intersection Summary

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

HCM 2010 Signalized Intersection Summary
1: Trafalgar Road & William Halton Parkway

Future Total 10 Year Horizon - Sensitivity
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	393	318	137	605	1797	34	355	2053	92	216	1493	610
Future Volume (veh/h)	393	318	137	605	1797	34	355	2053	92	216	1493	610
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1776	1900	1863	1900	1776	1827	1900	1776	1827	1776	1881	1681
Adj Flow Rate, veh/h	405	328	141	624	1853	35	366	2116	95	223	1539	629
Adj No. of Lanes	1	2	1	1	2	1	1	3	1	1	3	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	0	2	0	7	4	0	7	4	7	1	13
Cap, veh/h	233	1109	486	546	1181	544	207	1434	522	160	1422	450
Arrive On Green	0.11	0.31	0.31	0.15	0.35	0.35	0.06	0.23	0.23	0.06	0.31	0.31
Sat Flow, veh/h	1691	3610	1583	1810	3374	1553	1810	4262	1553	1691	4515	1429
Grp Volume(v), veh/h	405	328	141	624	1853	35	366	2116	95	223	1539	629
Grp Sat Flow(s),veh/h/ln	1691	1805	1583	1810	1687	1553	1810	1421	1553	1691	1505	1429
Q Serve(g_s), s	15.0	9.7	9.5	21.0	49.0	2.1	12.0	47.1	6.9	9.0	44.1	44.1
Cycle Q Clear(g_c), s	15.0	9.7	9.5	21.0	49.0	2.1	12.0	47.1	6.9	9.0	44.1	44.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	233	1109	486	546	1181	544	207	1434	522	160	1422	450
V/C Ratio(X)	1.74	0.30	0.29	1.14	1.57	0.06	1.77	1.48	0.18	1.39	1.08	1.40
Avail Cap(c_a), veh/h	233	1109	486	546	1181	544	207	1434	522	160	1422	450
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	37.0	36.9	35.6	45.5	30.3	44.1	54.2	38.7	37.0	48.0	48.0
Incr Delay (d2), s/veh	350.7	0.3	0.7	84.2	260.3	0.1	366.4	218.0	0.8	210.1	49.4	191.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	31.6	4.9	4.2	37.7	65.5	0.9	29.0	47.4	3.1	13.5	24.8	41.4
LnGrp Delay(d),s/veh	393.5	37.3	37.6	119.8	305.8	30.4	410.5	272.2	39.4	247.1	97.4	239.8
LnGrp LOS	F	D	D	F	F	C	F	F	D	F	F	F
Approach Vol, veh/h		874			2512			2577			2391	
Approach Delay, s/veh		202.4			255.8			283.2			148.8	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	54.0	24.0	50.0	15.0	51.0	18.0	56.0
Change Period (Y+Rc), s	3.0	* 6.9	3.0	7.0	3.0	* 6.9	3.0	7.0
Max Green Setting (Gmax), s	9.0	* 47	21.0	43.0	12.0	* 44	15.0	49.0
Max Q Clear Time (g_c+I1), s	11.0	49.1	23.0	11.7	14.0	46.1	17.0	51.0
Green Ext Time (p_c), s	0.0	0.0	0.0	6.3	0.0	0.0	0.0	0.0

Intersection Summary

HCM 2010 Ctrl Delay	228.0
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	294	68	299	259	137	140	1964	125	194	1595	320
Future Volume (vph)	141	294	68	299	259	137	140	1964	125	194	1595	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0		0.0	35.0		0.0	155.0		0.0	180.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	*0.80	*0.80	1.00	*0.80	*0.80
Frt		0.972			0.948			0.991			0.975	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1797	0	1805	1755	0	1770	4203	0	1805	4149	0
Flt Permitted	0.160			0.136			0.059			0.059		
Satd. Flow (perm)	295	1797	0	258	1755	0	110	4203	0	112	4149	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			18			8			34	
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		390.6			732.0			902.9			463.0	
Travel Time (s)		23.4			43.9			40.6			20.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	2%	6%	0%	4%	0%	2%	8%	0%	0%	8%	3%
Adj. Flow (vph)	155	323	75	329	285	151	154	2158	137	213	1753	352
Shared Lane Traffic (%)												
Lane Group Flow (vph)	155	398	0	329	436	0	154	2295	0	213	2105	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	20.0		7.0	20.0	
Minimum Split (s)	9.5	16.0		9.5	16.0		9.5	26.0		11.0	26.0	
Total Split (s)	14.0	31.0		22.0	39.0		13.0	74.0		13.0	74.0	
Total Split (%)	10.0%	22.1%		15.7%	27.9%		9.3%	52.9%		9.3%	52.9%	
Maximum Green (s)	9.5	25.0		17.5	33.0		8.5	68.0		9.0	68.0	
Yellow Time (s)	3.5	3.7		3.5	3.7		3.5	4.6		3.0	4.6	
All-Red Time (s)	1.0	2.3		1.0	2.3		1.0	1.4		1.0	1.4	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	6.0		4.5	6.0		4.5	6.0		4.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes				Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	5.0		3.0	5.0	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Walk Time (s)		0.0			0.0			0.0			0.0	
Flash Dont Walk (s)		7.0			7.0			7.0			7.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	36.0	25.0		48.5	33.0		78.0	68.0		79.0	68.0	
Actuated g/C Ratio	0.26	0.18		0.35	0.24		0.56	0.49		0.56	0.49	
v/c Ratio	0.89	1.22		1.17	1.02		0.95	1.12		1.24	1.04	
Control Delay	81.4	170.3		142.0	99.0		91.1	96.4		155.3	38.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	81.4	170.3		142.0	99.0		91.1	96.4		155.3	38.3	
LOS	F	F		F	F		F	F		F	D	
Approach Delay		145.4			117.4			96.1			49.1	
Approach LOS		F			F			F			D	

Intersection Summary

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.24
Intersection Signal Delay: 85.3 Intersection LOS: F
Intersection Capacity Utilization 104.7% ICU Level of Service G
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 2: Trafalgar Road & Burnhamthorpe Road E

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	155	398	329	436	154	2295	213	2105
v/c Ratio	0.89	1.22	1.17	1.02	0.95	1.12	1.24	1.04
Control Delay	81.4	170.3	142.0	99.0	91.1	96.4	155.3	38.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.4	170.3	142.0	99.0	91.1	96.4	155.3	38.3
Queue Length 50th (m)	32.3	~140.7	~96.1	~130.2	28.5	~320.9	~60.7	~279.7
Queue Length 95th (m)	#70.4	#208.2	#159.3	#199.5	#74.9	#354.3	m#56.4	m79.6
Internal Link Dist (m)		366.6		708.0		878.9		439.0
Turn Bay Length (m)	50.0		35.0		155.0		180.0	
Base Capacity (vph)	174	326	282	427	162	2045	172	2032
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	1.22	1.17	1.02	0.95	1.12	1.24	1.04

Intersection Summary

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	294	68	299	259	137	140	1964	125	194	1595	320
Future Volume (veh/h)	141	294	68	299	259	137	140	1964	125	194	1595	320
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1849	1900	1900	1852	1900	1863	1767	1900	1900	1773	1900
Adj Flow Rate, veh/h	155	323	75	329	285	151	154	2158	137	213	1753	352
Adj No. of Lanes	1	1	0	1	1	0	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	6	0	4	0	2	8	0	0	8	3
Cap, veh/h	171	259	60	278	269	142	163	2077	131	168	1815	360
Arrive On Green	0.07	0.18	0.18	0.13	0.24	0.24	0.06	0.49	0.49	0.06	0.49	0.49
Sat Flow, veh/h	1757	1452	337	1810	1141	604	1774	4277	270	1810	3737	742
Grp Volume(v), veh/h	155	0	398	329	0	436	154	1422	873	213	1326	779
Grp Sat Flow(s),veh/h/ln	1757	0	1790	1810	0	1745	1774	1414	1719	1810	1418	1642
Q Serve(g_s), s	9.5	0.0	25.0	17.5	0.0	33.0	7.7	68.0	68.0	9.0	63.2	65.0
Cycle Q Clear(g_c), s	9.5	0.0	25.0	17.5	0.0	33.0	7.7	68.0	68.0	9.0	63.2	65.0
Prop In Lane	1.00		0.19	1.00		0.35	1.00		0.16	1.00		0.45
Lane Grp Cap(c), veh/h	171	0	320	278	0	411	163	1373	835	168	1378	798
V/C Ratio(X)	0.91	0.00	1.25	1.19	0.00	1.06	0.94	1.04	1.04	1.27	0.96	0.98
Avail Cap(c_a), veh/h	171	0	320	278	0	411	163	1373	835	168	1378	798
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.1	0.0	57.5	41.9	0.0	53.5	41.0	36.0	36.0	44.8	34.8	35.2
Incr Delay (d2), s/veh	43.5	0.0	134.0	113.7	0.0	61.2	53.7	34.0	43.5	159.7	16.8	26.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	0.0	24.2	19.5	0.0	22.9	8.4	33.0	42.3	13.9	27.9	35.3
LnGrp Delay(d),s/veh	90.7	0.0	191.5	155.6	0.0	114.7	94.7	70.0	79.5	204.6	51.6	61.9
LnGrp LOS	F		F	F		F	F	F	F	F	D	E
Approach Vol, veh/h		553			765			2449			2318	
Approach Delay, s/veh		163.2			132.3			75.0			69.1	
Approach LOS		F			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	74.0	22.0	31.0	13.0	74.0	14.0	39.0
Change Period (Y+Rc), s	4.0	* 6	4.5	6.0	4.5	* 6	4.5	6.0
Max Green Setting (Gmax), s	9.0	* 68	17.5	25.0	8.5	* 68	9.5	33.0
Max Q Clear Time (g_c+I1), s	11.0	70.0	19.5	27.0	9.7	67.0	11.5	35.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	87.9
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

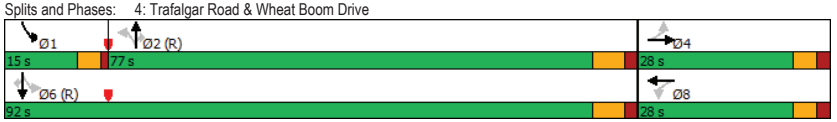
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	14	123	0	170	0	1968	140	114	1855	0
Future Volume (vph)	0	0	14	123	0	170	0	1968	140	114	1855	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	25.0		0.0	25.0		0.0	75.0		45.0	65.0		45.0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	*0.80	1.00	1.00	*0.80	1.00
Frt		0.850			0.850				0.850			
Flt Protected				0.950						0.950		
Satd. Flow (prot)	1863	3008	0	1327	2379	0	1863	4343	1292	1556	4262	1863
Flt Permitted				0.747						0.050		
Satd. Flow (perm)	1863	3008	0	1044	2379	0	1863	4343	1292	82	4262	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		74			148				82			
Link Speed (k/h)		50			50			60			80	
Link Distance (m)		170.2			342.3			409.5			286.4	
Travel Time (s)		12.3			24.6			24.6			12.9	
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Heavy Vehicles (%)	2%	2%	2%	36%	2%	29%	2%	5%	25%	16%	7%	2%
Adj. Flow (vph)	0	0	15	132	0	183	0	2116	151	123	1995	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	132	183	0	0	2116	151	123	1995	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	100		100	25		15	100		15	25		100
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		8	8		2	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		10.0	10.0		20.0	20.0	20.0	5.0	20.0	20.0
Minimum Split (s)	23.5	23.5		15.5	15.5		26.6	26.6	26.6	9.5	26.6	26.6
Total Split (s)	28.0	28.0		28.0	28.0		77.0	77.0	77.0	15.0	92.0	92.0
Total Split (%)	23.3%	23.3%		23.3%	23.3%		64.2%	64.2%	64.2%	12.5%	76.7%	76.7%
Maximum Green (s)	22.5	22.5		22.5	22.5		70.4	70.4	70.4	10.5	85.4	85.4
Yellow Time (s)	3.3	3.3		3.3	3.3		4.6	4.6	4.6	3.5	4.6	4.6
All-Red Time (s)	2.2	2.2		2.2	2.2		2.0	2.0	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5		6.6	6.6	6.6	4.5	6.6	6.6
Lead/Lag							Lag	Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)	7.0	7.0					7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0					28.0	28.0	28.0			
Pedestrian Calls (#/hr)	0	0					0	0	0			
Act Effct Green (s)		18.9		18.9	18.9			75.4	75.4	91.1	89.0	
Actuated g/C Ratio		0.16		0.16	0.16			0.63	0.63	0.76	0.74	
v/c Ratio		0.03		0.80	0.37			0.78	0.18	0.71	0.63	
Control Delay		0.1		81.5	12.9			19.7	5.7	53.4	4.5	
Queue Delay		0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay		0.1		81.5	12.9			19.7	5.7	53.4	4.5	
LOS		A		F	B			B	A	D	A	
Approach Delay		0.1			41.7			18.8			7.3	
Approach LOS		A			D			B			A	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 15.1 Intersection LOS: B
Intersection Capacity Utilization 81.6% ICU Level of Service D
Analysis Period (min) 15
* User Entered Value

Splits and Phases: 4: Trafalgar Road & Wheat Boom Drive



Lane Group	EBT	WBL	WBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	15	132	183	2116	151	123	1995
v/c Ratio	0.03	0.80	0.37	0.78	0.18	0.71	0.63
Control Delay	0.1	81.5	12.9	19.7	5.7	53.4	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.1	81.5	12.9	19.7	5.7	53.4	4.5
Queue Length 50th (m)	0.0	31.3	3.8	159.3	6.8	12.3	21.4
Queue Length 95th (m)	0.0	#58.9	14.3	193.4	17.0	#40.0	24.9
Internal Link Dist (m)	146.2		318.3	385.5			262.4
Turn Bay Length (m)		25.0			45.0	65.0	
Base Capacity (vph)	624	195	566	2730	842	191	3160
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.68	0.32	0.78	0.18	0.64	0.63

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	14	123	0	170	0	1968	140	114	1855	0
Future Volume (veh/h)	0	0	14	123	0	170	0	1968	140	114	1855	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1397	1473	1900	1863	1810	1520	1638	1776	1863
Adj Flow Rate, veh/h	0	0	15	132	0	183	0	2116	151	123	1995	0
Adj No. of Lanes	1	2	0	1	2	0	1	3	1	1	3	1
Peak Hour Factor	0.92	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93	0.93	0.92
Percent Heavy Veh, %	2	2	2	36	2	29	2	5	25	16	7	2
Cap, veh/h	60	292	261	224	231	207	60	2838	844	174	3128	1162
Arrive On Green	0.00	0.00	0.17	0.17	0.00	0.17	0.00	0.65	0.65	0.09	1.00	0.00
Sat Flow, veh/h	1196	1770	1583	1045	1399	1252	215	4343	1292	1560	4262	1583
Grp Volume(v), veh/h	0	0	15	132	0	183	0	2116	151	123	1995	0
Grp Sat Flow(s),veh/h/ln	1196	1770	1583	1045	1399	1252	215	1448	1292	1560	1421	1583
Q Serve(g_s), s	0.0	0.0	1.0	14.6	0.0	17.2	0.0	39.5	5.5	3.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	1.0	15.6	0.0	17.2	0.0	39.5	5.5	3.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	60	292	261	224	231	207	60	2838	844	174	3128	1162
V/C Ratio(X)	0.00	0.00	0.06	0.59	0.00	0.89	0.00	0.75	0.18	0.71	0.64	0.00
Avail Cap(c_a), veh/h	87	332	297	248	262	235	60	2838	844	243	3128	1162
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.79	0.79	0.00
Uniform Delay (d), s/veh	0.0	0.0	42.2	48.8	0.0	49.0	0.0	14.1	8.2	23.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	3.0	0.0	28.4	0.0	1.8	0.5	4.3	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.4	4.4	0.0	7.6	0.0	16.2	2.0	2.8	0.2	0.0
LnGrp Delay(d),s/veh	0.0	0.0	42.3	51.8	0.0	77.4	0.0	15.9	8.6	27.7	0.8	0.0
LnGrp LOS			D	D		E		B	A	C	A	
Approach Vol, veh/h		15			315			2267			2118	
Approach Delay, s/veh		42.3			66.7			15.4			2.4	
Approach LOS		D			E			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	9.7	85.0		25.3		94.7		25.3
Change Period (Y+Rc), s	4.5	6.6		5.5		6.6		5.5
Max Green Setting (Gmax), s	10.5	70.4		22.5		85.4		22.5
Max Q Clear Time (g_c+I1), s	5.1	41.5		3.0		2.0		19.2
Green Ext Time (p_c), s	0.2	23.0		0.0		40.0		0.7

Intersection Summary

HCM 2010 Ctrl Delay	13.1
HCM 2010 LOS	B

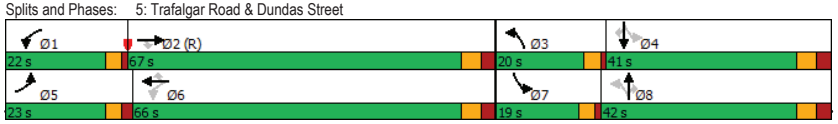
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	562	1815	284	274	2385	144	352	1446	296	345	1098	520
Future Volume (vph)	562	1815	284	274	2385	144	352	1446	296	345	1098	520
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Storage Lanes	2		1	1		1	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	*0.80	1.00	1.00	*0.80	1.00
Ped Bike Factor			0.98									0.98
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	5085	1583	1687	4715	1292	1736	4343	1538	1736	4343	1524
Flt Permitted	0.950			0.067			0.113			0.116		
Satd. Flow (perm)	3400	5085	1556	119	4715	1292	206	4343	1538	212	4343	1495
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			233			84			141			217
Link Speed (k/h)		70			70			60			60	
Link Distance (m)		554.9			415.5			331.2			409.5	
Travel Time (s)		28.5			21.4			19.9			24.6	
Confl. Peds. (#/hr)			4	4			5					5
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	3%	2%	2%	7%	10%	25%	4%	5%	5%	4%	5%	6%
Adj. Flow (vph)	573	1852	290	280	2434	147	359	1476	302	352	1120	531
Shared Lane Traffic (%)												
Lane Group Flow (vph)	573	1852	290	280	2434	147	359	1476	302	352	1120	531
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	12.0	26.4	26.4	11.0	26.4	26.4	11.0	16.5	16.5	11.0	16.5	16.5
Total Split (s)	23.0	67.0	67.0	22.0	66.0	66.0	20.0	42.0	42.0	19.0	41.0	41.0
Total Split (%)	15.3%	44.7%	44.7%	14.7%	44.0%	44.0%	13.3%	28.0%	28.0%	12.7%	27.3%	27.3%
Maximum Green (s)	18.0	60.6	60.6	18.0	59.6	59.6	16.0	35.5	35.5	15.0	34.5	34.5
Yellow Time (s)	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7	3.0	3.7	3.7
All-Red Time (s)	2.0	2.7	2.7	1.0	2.7	2.7	1.0	2.8	2.8	1.0	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	6.4	6.4	4.0	6.4	6.4	4.0	6.5	6.5	4.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5	5.5	5.5	3.5	5.5	5.5	3.5	3.5	3.5	3.5	3.5	3.5
Recall Mode	None	C-Max	C-Max	None	None	None	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	18.0	60.6	60.6	80.0	59.6	59.6	54.0	35.5	35.5	52.0	34.5	34.5
Actuated g/C Ratio	0.12	0.40	0.40	0.53	0.40	0.40	0.36	0.24	0.24	0.35	0.23	0.23
v/c Ratio	1.40	0.90	0.38	1.12	1.30	0.26	1.51	1.44	0.64	1.56	1.12	1.04
Control Delay	242.0	49.1	8.2	132.8	176.2	14.4	283.3	242.7	33.7	304.6	119.8	83.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	242.0	49.1	8.2	132.8	176.2	14.4	283.3	242.7	33.7	304.6	119.8	83.4
LOS	F	D	A	F	F	B	F	F	C	F	F	F
Approach Delay		85.4			163.7			220.0			142.6	
Approach LOS		F			F			F			F	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.56			
Intersection Signal Delay: 149.9		Intersection LOS: F	
Intersection Capacity Utilization 127.4%		ICU Level of Service H	
Analysis Period (min) 15			

* User Entered Value

Splits and Phases: 5: Trafalgar Road & Dundas Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	573	1852	290	280	2434	147	359	1476	302	352	1120	531
v/c Ratio	1.40	0.90	0.38	1.12	1.30	0.26	1.51	1.44	0.64	1.56	1.12	1.04
Control Delay	242.0	49.1	8.2	132.8	176.2	14.4	283.3	242.7	33.7	304.6	119.8	83.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	242.0	49.1	8.2	132.8	176.2	14.4	283.3	242.7	33.7	304.6	119.8	83.4
Queue Length 50th (m)	~123.4	197.8	11.0	~84.0	~356.0	12.4	~139.7	~260.2	46.1	~138.8	~167.8	~123.3
Queue Length 95th (m)	#162.2	219.9	33.0	#145.8	#383.3	29.7	#206.8	#295.6	81.1	#205.3	#203.2	#198.3
Internal Link Dist (m)		530.9			391.5			307.2			385.5	
Turn Bay Length (m)	105.0		100.0	185.0		90.0	175.0		65.0	70.0		65.0
Base Capacity (vph)	408	2054	767	251	1873	563	237	1027	471	225	998	510
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.40	0.90	0.38	1.12	1.30	0.26	1.51	1.44	0.64	1.56	1.12	1.04

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	562	1815	284	274	2385	144	352	1446	296	345	1098	520
Future Volume (veh/h)	562	1815	284	274	2385	144	352	1446	296	345	1098	520
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1863	1863	1776	1727	1520	1827	1810	1810	1827	1810	1792
Adj Flow Rate, veh/h	573	1852	290	280	2434	147	359	1476	302	352	1120	531
Adj No. of Lanes	2	3	1	1	3	1	1	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	7	10	25	4	5	5	4	5	6
Cap, veh/h	409	2054	638	262	1874	512	234	1028	362	222	999	348
Arrive On Green	0.12	0.40	0.40	0.12	0.40	0.40	0.11	0.24	0.24	0.10	0.23	0.23
Sat Flow, veh/h	3408	5085	1579	1691	4715	1288	1740	4343	1528	1740	4343	1514
Grp Volume(v), veh/h	573	1852	290	280	2434	147	359	1476	302	352	1120	531
Grp Sat Flow(s),veh/h/ln	1704	1695	1579	1691	1572	1288	1740	1448	1528	1740	1448	1514
Q Serve(g_s), s	18.0	51.2	20.1	18.0	59.6	11.6	16.0	35.5	28.2	15.0	34.5	34.5
Cycle Q Clear(g_c), s	18.0	51.2	20.1	18.0	59.6	11.6	16.0	35.5	28.2	15.0	34.5	34.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	409	2054	638	262	1874	512	234	1028	362	222	999	348
V/C Ratio(X)	1.40	0.90	0.45	1.07	1.30	0.29	1.54	1.44	0.83	1.59	1.12	1.53
Avail Cap(c_a), veh/h	409	2054	638	262	1874	512	234	1028	362	222	999	348
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.0	41.9	32.6	47.4	45.2	30.7	44.9	57.2	54.5	44.1	57.7	57.7
Incr Delay (d2), s/veh	194.7	6.9	2.3	74.9	138.6	0.8	261.9	201.8	15.7	283.9	68.0	250.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.5	25.3	9.2	16.3	49.9	4.2	26.7	33.4	13.5	26.7	20.1	38.6
LnGrp Delay(d),s/veh	260.7	48.8	35.0	122.3	183.8	31.6	306.8	259.1	70.2	328.1	125.7	308.3
LnGrp LOS	F	D	C	F	F	C	F	F	E	F	F	F
Approach Vol, veh/h		2715			2861			2137			2003	
Approach Delay, s/veh		92.1			170.0			240.4			209.7	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	67.0	20.0	41.0	23.0	66.0	19.0	42.0
Change Period (Y+Rc), s	4.0	6.4	4.0	6.5	5.0	6.4	4.0	6.5
Max Green Setting (Gmax), s	18.0	60.6	16.0	34.5	18.0	59.6	15.0	35.5
Max Q Clear Time (g_c+I1), s	20.0	53.2	18.0	36.5	20.0	61.6	17.0	37.5
Green Ext Time (p_c), s	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	171.9
HCM 2010 LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	83	2002	77	330	2660	173	143	102	173	134	70	57
Future Volume (vph)	83	2002	77	330	2660	173	143	102	173	134	70	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	130.0		90.0	175.0		85.0	60.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor			0.98			0.98	0.99		0.99	1.00	0.99	
Frt			0.850			0.850			0.850		0.932	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	4940	1495	1770	4673	1313	1736	1900	1599	1787	3208	0
Flt Permitted	0.071			0.066			0.666			0.687		
Satd. Flow (perm)	130	4940	1469	123	4673	1281	1208	1900	1576	1290	3208	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			97			115			184		61	
Link Speed (k/h)		70			70			50			50	
Link Distance (m)		415.5			417.9			248.5			103.1	
Travel Time (s)		21.4			21.5			17.9			7.4	
Confl. Peds. (#/hr)	2		4	4		2	8		2	2		8
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	4%	5%	8%	2%	11%	23%	4%	0%	1%	1%	3%	5%
Adj. Flow (vph)	88	2130	82	351	2830	184	152	109	184	143	74	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	2130	82	351	2830	184	152	109	184	143	135	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			3.6			3.6	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway 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
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	2.0	2.0	10.0	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	2.0	2.0	0.6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			4			8	
Permitted Phases	2		2	6		6	4		4	8		
Detector Phase	5	2	2	1	6	6	4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	7.0	20.0	20.0	7.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	11.0	26.8	26.8	11.0	26.8	26.8	17.4	17.4	17.4	17.4	17.4	
Total Split (s)	11.0	61.0	61.0	32.0	82.0	82.0	47.0	47.0	47.0	47.0	47.0	
Total Split (%)	7.9%	43.6%	43.6%	22.9%	58.6%	58.6%	33.6%	33.6%	33.6%	33.6%	33.6%	
Maximum Green (s)	7.0	54.2	54.2	28.0	75.2	75.2	39.6	39.6	39.6	39.6	39.6	
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	1.0	2.6	2.6	1.0	2.6	2.6	4.1	4.1	4.1	4.1	4.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.8	6.8	4.0	6.8	6.8	7.4	7.4	7.4	7.4	7.4	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Max	C-Max	None	Max	Max	Max	Max	Max	Max	Max	
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)		24.0	24.0		24.0	24.0	32.0	32.0	32.0	32.0	32.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0	0	0	0	
Act Effct Green (s)	66.2	56.4	56.4	89.0	75.2	75.2	39.6	39.6	39.6	39.6	39.6	
Actuated g/C Ratio	0.47	0.40	0.40	0.64	0.54	0.54	0.28	0.28	0.28	0.28	0.28	
v/c Ratio	0.62	1.07	0.13	0.92	1.13	0.25	0.45	0.20	0.32	0.39	0.14	
Control Delay	44.2	81.8	3.9	70.8	94.6	7.4	46.2	39.5	6.6	44.4	20.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	44.2	81.8	3.9	70.8	94.6	7.4	46.2	39.5	6.6	44.4	20.9	
LOS	D	F	A	E	F	A	D	D	A	D	C	
Approach Delay		77.6			87.4			28.2			33.0	
Approach LOS		E			F			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.13			
Intersection Signal Delay: 77.4		Intersection LOS: E	
Intersection Capacity Utilization 119.4%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 6: Postridge Drive & Dundas Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	88	2130	82	351	2830	184	152	109	184	143	135
v/c Ratio	0.62	1.07	0.13	0.92	1.13	0.25	0.45	0.20	0.32	0.39	0.14
Control Delay	44.2	81.8	3.9	70.8	94.6	7.4	46.2	39.5	6.6	44.4	20.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.2	81.8	3.9	70.8	94.6	7.4	46.2	39.5	6.6	44.4	20.9
Queue Length 50th (m)	9.3	~259.9	0.0	82.4	~348.8	9.5	36.5	24.3	0.0	33.8	8.3
Queue Length 95th (m)	#31.5	#289.6	8.2	#136.3	#374.7	23.2	59.6	40.7	18.4	55.4	17.1
Internal Link Dist (m)		391.5			393.9			224.5			79.1
Turn Bay Length (m)	130.0		90.0	175.0		85.0	60.0				
Base Capacity (vph)	141	1991	650	407	2510	741	341	537	577	364	951
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	1.07	0.13	0.86	1.13	0.25	0.45	0.20	0.32	0.39	0.14

Intersection Summary

~ 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.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	2002	77	330	2660	173	143	102	173	134	70	57
Future Volume (veh/h)	83	2002	77	330	2660	173	143	102	173	134	70	57
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1827	1810	1759	1863	1712	1545	1827	1900	1881	1881	1829	1900
Adj Flow Rate, veh/h	88	2130	82	351	2830	184	152	109	184	143	74	61
Adj No. of Lanes	1	3	1	1	3	1	1	1	1	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	5	8	2	11	23	4	0	1	1	3	5
Cap, veh/h	136	1997	601	376	2518	706	356	537	448	311	536	398
Arrive On Green	0.05	0.40	0.40	0.18	0.54	0.54	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1740	4940	1488	1774	4673	1310	1217	1900	1585	1087	1894	1409
Grp Volume(v), veh/h	88	2130	82	351	2830	184	152	109	184	143	67	68
Grp Sat Flow(s),veh/h/ln	1740	1647	1488	1774	1558	1310	1217	1900	1585	1087	1737	1566
Q Serve(g_s), s	4.1	56.6	4.9	23.2	75.4	10.6	15.0	6.1	13.2	16.1	4.0	4.5
Cycle Q Clear(g_c), s	4.1	56.6	4.9	23.2	75.4	10.6	19.5	6.1	13.2	22.2	4.0	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.90
Lane Grp Cap(c), veh/h	136	1997	601	376	2518	706	356	537	448	311	491	443
V/C Ratio(X)	0.65	1.07	0.14	0.93	1.12	0.26	0.43	0.20	0.41	0.46	0.14	0.15
Avail Cap(c_a), veh/h	138	1997	601	406	2518	706	356	537	448	311	491	443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	41.7	26.3	46.3	32.3	17.3	44.9	38.2	40.7	46.7	37.4	37.6
Incr Delay (d2), s/veh	9.9	40.6	0.5	27.6	61.7	0.9	3.7	0.9	2.8	4.8	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	33.2	2.1	16.2	46.6	4.0	5.4	3.3	6.1	5.3	2.0	2.0
LnGrp Delay(d),s/veh	43.4	82.3	26.8	73.9	94.0	18.2	48.7	39.0	43.5	51.5	38.0	38.4
LnGrp LOS	D	F	C	E	F	B	D	D	D	D	D	D
Approach Vol, veh/h		2300			3365			445			278	
Approach Delay, s/veh		78.9			87.7			44.2			45.0	
Approach LOS		E			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	29.6	63.4		47.0	10.8	82.2		47.0
Change Period (Y+Rc), s	4.0	6.8		* 7.4	4.0	6.8		* 7.4
Max Green Setting (Gmax), s	28.0	54.2		* 40	7.0	75.2		* 40
Max Q Clear Time (g_c+I1), s	25.2	58.6		21.5	6.1	77.4		24.2
Green Ext Time (p_c), s	0.5	0.0		2.3	0.0	0.0		1.5

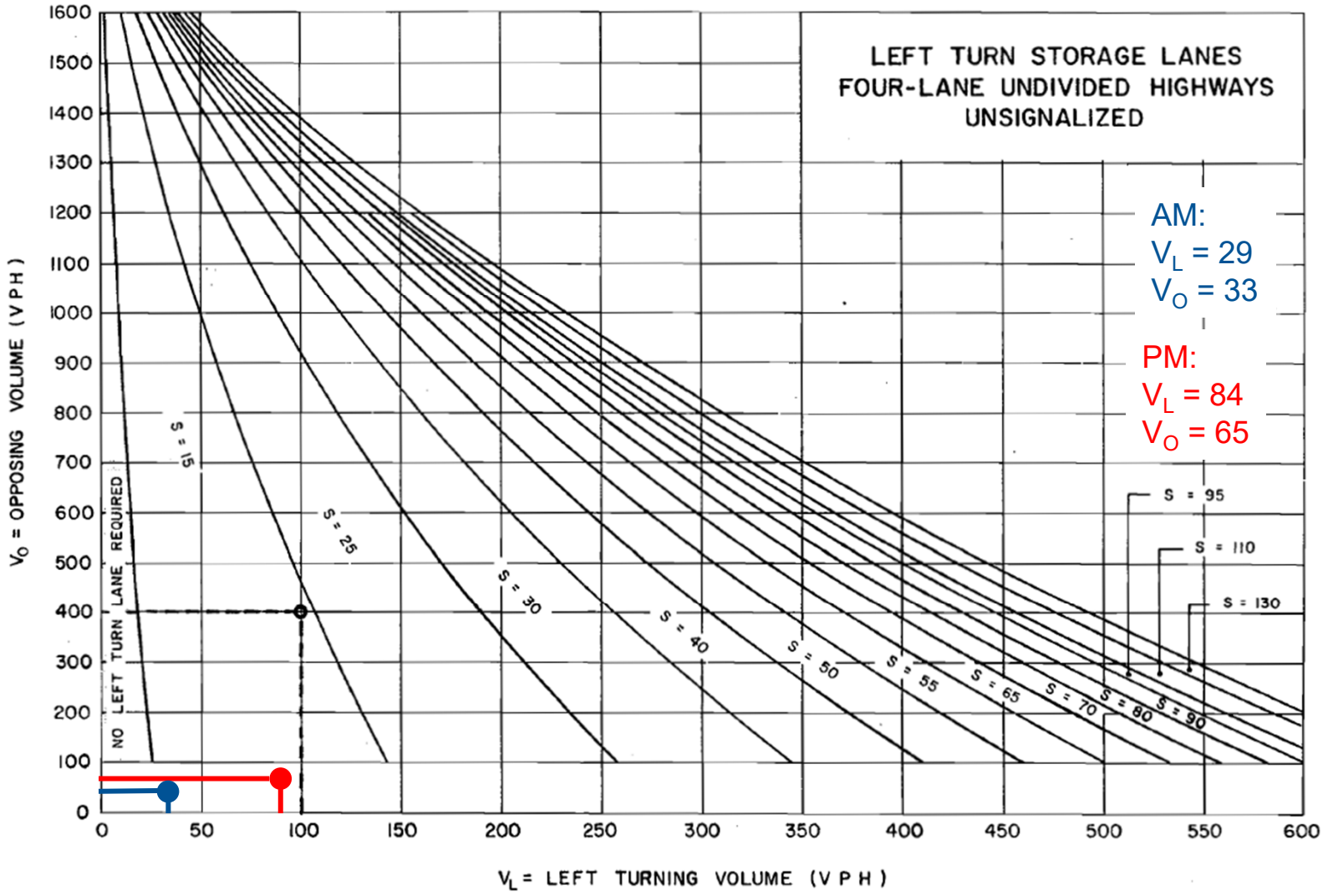
Intersection Summary	
HCM 2010 Ctrl Delay	79.6
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Appendix H

Left-Turn Lane Warrant



paradigm TRANSPORTATION SOLUTIONS LIMITED

South Access
Northbound Left-Turn Lane Warrant

3275 Trafalgar Road, Oakville
220208

Appendix F

Appendix I

Parking Proxy Data

1260 Marlbourough Court - Residential Parking Utilization Survey (222 Units)

Time Ending	Wednesday January 10, 2018			Thursday January 11, 2018			Two Day Average		
	Occupied	Unoccupied	Rate	Occupied	Unoccupied	Rate	Occupied	Unoccupied	Rate
4:15	56	216	0.25	61	211	0.27	59	214	0.26
4:30	57	215	0.26	62	210	0.28	60	213	0.27
4:45	58	214	0.26	64	208	0.29	61	211	0.27
5:00	58	214	0.26	64	208	0.29	61	211	0.27
5:15	60	212	0.27	63	209	0.28	62	211	0.28
5:30	65	207	0.29	60	212	0.27	63	210	0.28
5:45	64	208	0.29	60	212	0.27	62	210	0.28
6:00	65	207	0.29	61	211	0.27	63	209	0.28
6:15	62	210	0.28	63	209	0.28	63	210	0.28
6:30	65	207	0.29	64	208	0.29	65	208	0.29
6:45	66	206	0.30	62	210	0.28	64	208	0.29
7:00	68	204	0.31	64	208	0.29	66	206	0.30
7:15	71	201	0.32	68	204	0.31	70	203	0.31
7:30	71	201	0.32	68	204	0.31	70	203	0.31
7:45	72	200	0.32	71	201	0.32	72	201	0.32
8:00	73	199	0.33	70	202	0.32	72	201	0.32
8:15	77	195	0.35	71	201	0.32	74	198	0.33
8:30	77	195	0.35	73	199	0.33	75	197	0.34
8:45	77	195	0.35	76	196	0.34	77	196	0.34
9:00	79	193	0.36	77	195	0.35	78	194	0.35
9:15	79	193	0.36	78	194	0.35	79	194	0.35
9:30	80	192	0.36	78	194	0.35	79	193	0.36
9:45	81	191	0.36	80	192	0.36	81	192	0.36
10:00	82	190	0.37	82	190	0.37	82	190	0.37
Maximum Observed	**82**	**216**	**0.37**	**82**	**212**	**0.37**	**82**	**214**	**0.37**
Minimum Observed	**56**	**190**	**0.25**	**60**	**190**	**0.27**	**59**	**190**	**0.26**
Average Observed	**69**	**203**	**0.31**	**68**	**204**	**0.31**	**69**	**203**	**0.31**

1260 Marlbourough Court - Visitor Parking Utilization Survey (222 Units)

Time Ending	Wednesday January 10, 2018			Thursday January 11, 2018			Two Day Average		
	Occupied	Unoccupied	Rate	Occupied	Unoccupied	Rate	Occupied	Unoccupied	Rate
4:15	12	32	0.05	13	31	0.06	13	32	0.06
4:30	16	28	0.07	15	29	0.07	16	29	0.07
4:45	18	26	0.08	13	31	0.06	16	29	0.07
5:00	17	27	0.08	14	30	0.06	16	29	0.07
5:15	16	28	0.07	15	29	0.07	16	29	0.07
5:30	17	27	0.08	14	30	0.06	16	29	0.07
5:45	16	28	0.07	16	28	0.07	16	28	0.07
6:00	19	25	0.09	16	28	0.07	18	27	0.08
6:15	21	23	0.09	15	29	0.07	18	26	0.08
6:30	23	21	0.10	18	26	0.08	21	24	0.09
6:45	26	18	0.12	21	23	0.09	24	21	0.11
7:00	25	19	0.11	20	24	0.09	23	22	0.10
7:15	24	20	0.11	19	25	0.09	22	23	0.10
7:30	27	17	0.12	19	25	0.09	23	21	0.10
7:45	28	16	0.13	19	25	0.09	24	21	0.11
8:00	29	15	0.13	17	27	0.08	23	21	0.10
8:15	30	14	0.14	13	31	0.06	22	23	0.10
8:30	30	14	0.14	13	31	0.06	22	23	0.10
8:45	34	10	0.15	17	27	0.08	26	19	0.11
9:00	33	11	0.15	17	27	0.08	25	19	0.11
9:15	31	13	0.14	18	26	0.08	25	20	0.11
9:30	28	16	0.13	18	26	0.08	23	21	0.10
9:45	29	15	0.13	18	26	0.08	24	21	0.11
10:00	30	14	0.14	19	25	0.09	25	20	0.11
Maximum Observed	**34**	**32**	**0.15**	**21**	**31**	**0.09**	**26**	**32**	**0.11**
Minimum Observed	**12**	**10**	**0.05**	**13**	**23**	**0.06**	**13**	**19**	**0.06**
Average Observed	**24**	**20**	**0.11**	**17**	**27**	**0.07**	**20**	**24**	**0.09**

Parking Utilization Survey

100 Millside Drive - 154 Residential Units										Overall		0.93
										Visitor - Max Observed		0.13
										Resident - Max Observed		0.80
TIME ENDING	Saturday November 4 2017			Tuesday October 31 2017			Wednesday November 1 2017			Average		
	Visitor	Residential	Total	Visitor	Residential	Total	Visitor	Residential	Total	Visitor	Residential	Total
16:15	16	92	108	11	85	96	10	84	94	12	87	99
16:30	15	95	110	14	91	105	10	87	97	13	91	104
16:45	16	96	112	16	91	107	12	90	102	15	92	107
17:00	16	96	112	17	95	112	12	95	107	15	95	110
17:15	18	97	115	18	93	111	13	97	110	16	96	112
17:30	17	100	117	16	93	109	14	95	109	16	96	112
17:45	17	99	116	16	92	108	16	98	114	16	96	113
18:00	20	100	120	16	89	105	21	98	119	19	96	115
18:15	18	102	120	16	90	106	20	97	117	18	96	114
18:30	17	104	121	17	91	108	20	98	118	18	98	116
18:45	16	105	121	17	94	111	18	101	119	17	100	117
19:00	17	109	126	18	94	112	19	101	120	18	101	119
19:15	18	112	130	18	97	115	21	102	123	19	104	123
19:30	21	113	134	18	98	116	18	106	124	19	106	125
19:45	20	113	133	18	103	121	22	106	128	20	107	127
20:00	21	116	137	18	104	122	20	109	129	20	110	129
20:15	21	116	137	19	108	127	19	112	131	20	112	132
20:30	21	118	139	21	112	133	18	114	132	20	115	135
20:45	20	121	141	22	116	138	19	115	134	20	117	138
21:00	22	122	144	21	116	137	18	115	133	20	118	138
21:15	20	121	141	19	117	136	17	120	137	19	119	138
21:30	20	122	142	19	119	138	18	122	140	19	121	140
21:45	21	123	144	19	122	141	17	123	140	19	123	142
22:00	21	123	144	19	125	144	16	122	138	19	123	142

100 Millside Drive is located within the northeast corner of Martin Street and Millside Drive in Milton, Ontario. This development is made up of a sixteen-storey buildings with a total of 154 residential units .

551 Maple Avenue - Residential Parking Utilization Survey (186 Units)

Time Ending	Thursday November 1, 2016			Wednesday November 2, 2016			Tuesday November 8, 2016			Wednesday November 9, 2016			Four Day Average		
	Occupied	Unoccupied	Rate	Occupied	Unoccupied	Rate	Occupied	Unoccupied	Rate	Occupied	Unoccupied	Rate	Occupied	Unoccupied	Rate
4:15	60	181	0.32	43	198	0.23	52	189	0.28	58	183	0.31	57	184	0.30
4:30	56	185	0.30	39	202	0.21	53	188	0.28	60	181	0.32	56	185	0.30
4:45	57	184	0.31	47	194	0.25	60	181	0.32	60	181	0.32	59	182	0.32
5:00	60	181	0.32	52	189	0.28	61	180	0.33	63	178	0.34	61	180	0.33
5:15	68	173	0.37	56	185	0.30	60	181	0.32	65	176	0.35	64	177	0.35
5:30	80	161	0.43	60	181	0.32	76	165	0.41	68	173	0.37	75	166	0.40
5:45	82	159	0.44	78	163	0.42	84	157	0.45	69	172	0.37	78	163	0.42
6:00	84	157	0.45	89	152	0.48	84	157	0.45	72	169	0.39	80	161	0.43
6:15	93	148	0.50	90	151	0.48	88	153	0.47	88	153	0.47	90	151	0.48
6:30	96	145	0.52	101	140	0.54	93	148	0.50	95	146	0.51	95	146	0.51
6:45	93	148	0.50	102	139	0.55	96	145	0.52	103	138	0.55	97	144	0.52
7:00	103	138	0.55	110	131	0.59	98	143	0.53	108	133	0.58	103	138	0.55
7:15	112	129	0.60	118	123	0.63	104	137	0.56	111	130	0.60	109	132	0.59
7:30	110	131	0.59	130	111	0.70	110	131	0.59	115	126	0.62	112	129	0.60
7:45	120	121	0.65	129	112	0.69	118	123	0.63	122	119	0.66	120	121	0.65
8:00	132	109	0.71	133	108	0.72	125	116	0.67	128	113	0.69	128	113	0.69
8:15	134	107	0.72	131	110	0.70	132	109	0.71	130	111	0.70	132	109	0.71
8:30	133	108	0.72	146	95	0.78	138	103	0.74	138	103	0.74	136	105	0.73
8:45	134	107	0.72	149	92	0.80	142	99	0.76	135	106	0.73	137	104	0.74
9:00	140	101	0.75	155	86	0.83	147	94	0.79	132	109	0.71	140	101	0.75
9:15	141	100	0.76	154	87	0.83	145	96	0.78	132	109	0.71	139	102	0.75
9:30	143	98	0.77	154	87	0.83	150	91	0.81	145	96	0.78	146	95	0.78
9:45	146	95	0.78	153	88	0.82	151	90	0.81	148	93	0.80	148	93	0.80
10:00	146	95	0.78	153	88	0.82	154	87	0.83	148	93	0.80	149	92	0.80
Maximum Observed	**146**	**185**	**0.78**	**155**	**202**	**0.83**	**154**	**189**	**0.83**	**148**	**183**	**0.80**	**149**	**185**	**0.80**
Minimum Observed	**56**	**95**	**0.30**	**39**	**86**	**0.21**	**52**	**87**	**0.28**	**58**	**93**	**0.31**	**56**	**92**	**0.30**
Average Observed	**105**	**136**	**0.57**	**107**	**134**	**0.58**	**105**	**136**	**0.56**	**104**	**137**	**0.56**	**105**	**136**	**0.56**

551 Maple Avenue - Visitor Parking Utilization Survey (186 Units)

Time Ending	Thursday November 1, 2016			Wednesday November 2, 2016			Tuesday November 8, 2016			Wednesday November 9, 2016			Four Day Average		
	Occupied	Unoccupied	Rate	Occupied	Unoccupied	Rate	Occupied	Unoccupied	Rate	Occupied	Unoccupied	Rate	Occupied	Unoccupied	Rate
4:15	12	35	0.06	9	38	0.05	15	32	0.08	12	35	0.06	13	34	0.07
4:30	8	39	0.04	7	40	0.04	15	32	0.08	9	38	0.05	11	36	0.06
4:45	12	35	0.06	11	36	0.06	15	32	0.08	13	34	0.07	13	34	0.07
5:00	13	34	0.07	13	34	0.07	12	35	0.06	13	34	0.07	13	34	0.07
5:15	13	34	0.07	13	34	0.07	15	32	0.08	13	34	0.07	14	33	0.07
5:30	15	32	0.08	13	34	0.07	11	36	0.06	12	35	0.06	13	34	0.07
5:45	12	35	0.06	15	32	0.08	12	35	0.06	12	35	0.06	12	35	0.06
6:00	19	28	0.10	13	34	0.07	11	36	0.06	13	34	0.07	14	33	0.08
6:15	17	30	0.09	15	32	0.08	15	32	0.08	16	31	0.09	16	31	0.09
6:30	15	32	0.08	15	32	0.08	12	35	0.06	15	32	0.08	14	33	0.08
6:45	13	34	0.07	16	31	0.09	13	34	0.07	15	32	0.08	14	33	0.07
7:00	15	32	0.08	20	27	0.11	15	32	0.08	16	31	0.09	15	32	0.08
7:15	15	32	0.08	21	26	0.11	19	28	0.10	19	28	0.10	18	29	0.09
7:30	15	32	0.08	22	25	0.12	22	25	0.12	19	28	0.10	19	28	0.10
7:45	15	32	0.08	24	23	0.13	17	30	0.09	19	28	0.10	17	30	0.09
8:00	15	32	0.08	25	22	0.13	15	32	0.08	19	28	0.10	16	31	0.09
8:15	16	31	0.09	23	24	0.12	17	30	0.09	19	28	0.10	17	30	0.09
8:30	16	31	0.09	20	27	0.11	15	32	0.08	17	30	0.09	16	31	0.09
8:45	15	32	0.08	23	24	0.12	13	34	0.07	16	31	0.09	15	32	0.08
9:00	15	32	0.08	23	24	0.12	13	34	0.07	17	30	0.09	15	32	0.08
9:15	16	31	0.09	20	27	0.11	15	32	0.08	17	30	0.09	16	31	0.09
9:30	16	31	0.09	16	31	0.09	13	34	0.07	15	32	0.08	15	32	0.08
9:45	16	31	0.09	16	31	0.09	16	31	0.09	16	31	0.09	16	31	0.09
10:00	15	32	0.08	16	31	0.09	16	31	0.09	16	31	0.09	16	31	0.08
Maximum Observed	**19**	**39**	**0.10**	**25**	**40**	**0.13**	**22**	**36**	**0.12**	**19**	**38**	**0.10**	**19**	**36**	**0.10**
Minimum Observed	**8**	**28**	**0.04**	**7**	**22**	**0.04**	**11**	**25**	**0.06**	**9**	**28**	**0.05**	**11**	**28**	**0.06**
Average Observed	**15**	**32**	**0.08**	**17**	**30**	**0.09**	**15**	**32**	**0.08**	**15**	**32**	**0.08**	**15**	**32**	**0.08**