# 729-753 Ridgewood Ave

## TIA Strategy Report

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# Document Control Page

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# Strategy Report

Parsons has been retained by Brigil Construction to prepare a TIA in support of a Zoning By-Law Amendment (ZBLA) for a residential development located at 729-753 Ridgewood Ave. This document follows the new TIA process, as outlined in the City Transportation Impact Assessment (TIA) Guidelines (2017). The following report represents Step 4 – Strategy Report.

## 1. Screening Form

The screening form confirmed the need for a TIA Report based on the Trip Generation trigger and the Safety trigger. Trip Generation module is triggered given that the proposed development consists of five buildings ranging from 4 to 15-storeys high, with approximately 387 residential apartment units. Safety module is triggered given that the proposed development access is located less than 150 meters from the signalized intersection of Riverside/Ridgewood. The Location module was not triggered. The Screening Form has been provided in Appendix A.

## 2. Scoping Report

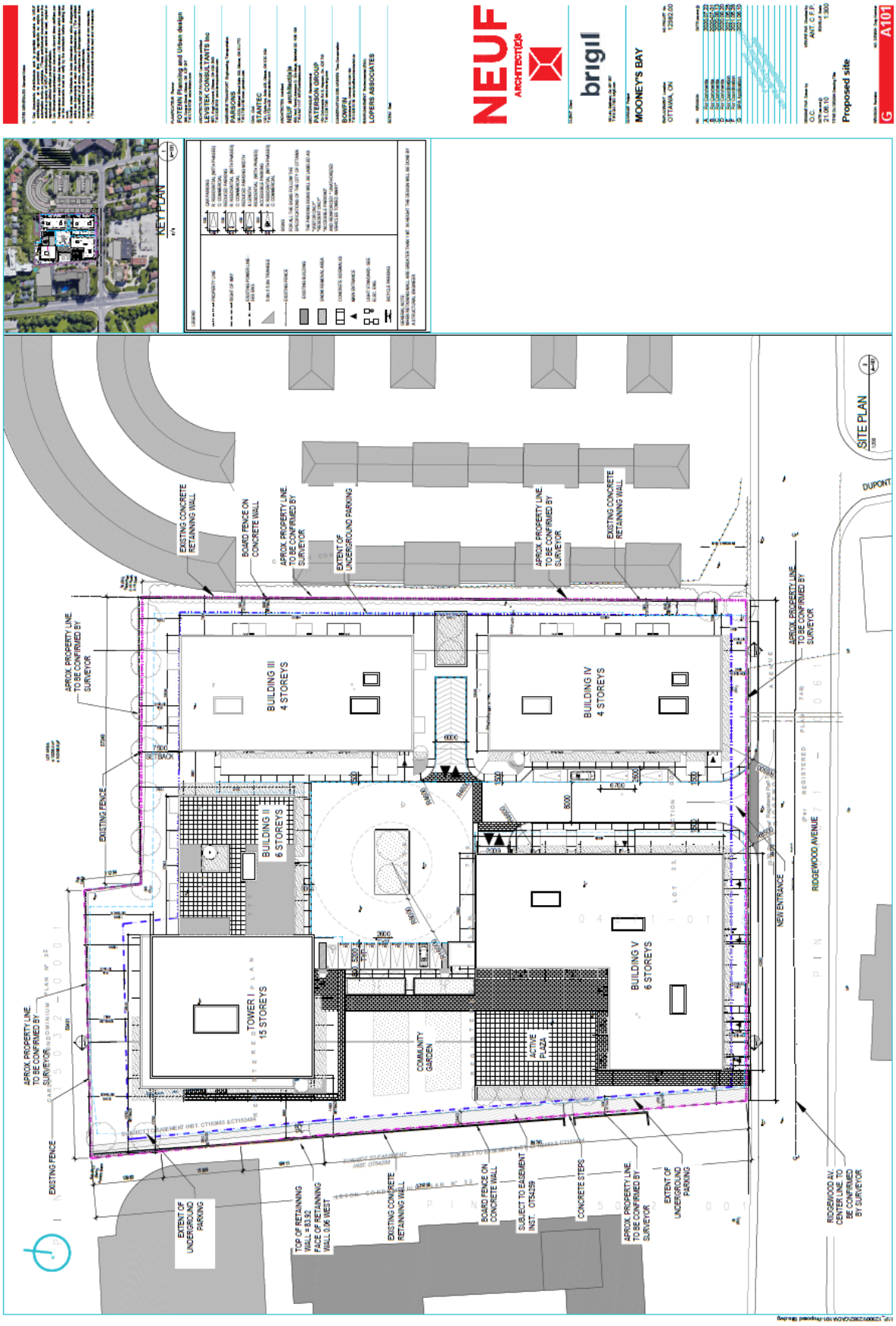
### 2.1. Existing and Planned Conditions

#### 2.1.1. PROPOSED DEVELOPMENT

The proposed site is located at the combined addresses of 729 & 753 Ridgewood Avenue and will be composed of five apartment buildings that are 4 to 15-storeys high and consist of 387 residential units and 856 $m^2$ (9,213 $ft^2$) of commercial space, which will be constructed in a single phase by horizon year 2024. The site is currently occupied by a small shopping center containing a pharmacy, a grocer, and insurance brokers. The site proposes a single driveway access connection to Ridgewood Avenue, located on the south west edge of the site. Additionally, the total number of parking spaces proposed are approximately 572 vehicle parking spaces and 198 bicycle parking spaces. The two properties are currently zoned as GM1 F (1.0), General Mixed-Use Zone. The local context of the site is displayed in Figure 1 and the proposed Concept Plan is shown in Figure 2.

Figure 1: Local Context

Figure 2: Concept Plan



### 2.1.2. EXISTING CONDITIONS

**Area Road Network**

*Riverside Drive* is a municipal arterial roadway in Ottawa, that extends from its north terminus at Tremblay Road and the Hwy 417 EB Off Ramps, to its south terminus at Limebank Road, where it continues as River Road until the City's limits. Riverside Drive provides a four-lane cross-section, with auxiliary turn lanes at major intersections. The posted speed limit is 60 km/h.

*Brookfield Road* is a municipal major collector roadway in Ottawa, that runs from Bronson Avenue in the east to Riverside Drive in the west, where it continues as Hog's Back Road. The roadway provides a four-lane cross-section. The posted speed limit is 50 km/h.

*Ridgewood Avenue* is a municipal collector roadway in Ottawa, that runs from Springland Drive in the east to Riverside Drive in the west. The roadway provides a two-lane cross-section with space for on-street parking. The posted speed limit is 40 km/h.

*Springland Drive* is a municipal collector roadway in Ottawa, that runs from Walkley Road in the south to the VIA Rail tracks in the northeast, where it reaches a dead end. The roadway provides a two-lane cross-section. The posted speed limit is 40 km/h.

*Flannery Drive* is a municipal collector roadway in Ottawa, that runs from Springland Drive in the south to Brookfield Road in the north. The roadway provides a two-lane cross-section. The posted speed limit is 50 km/h.

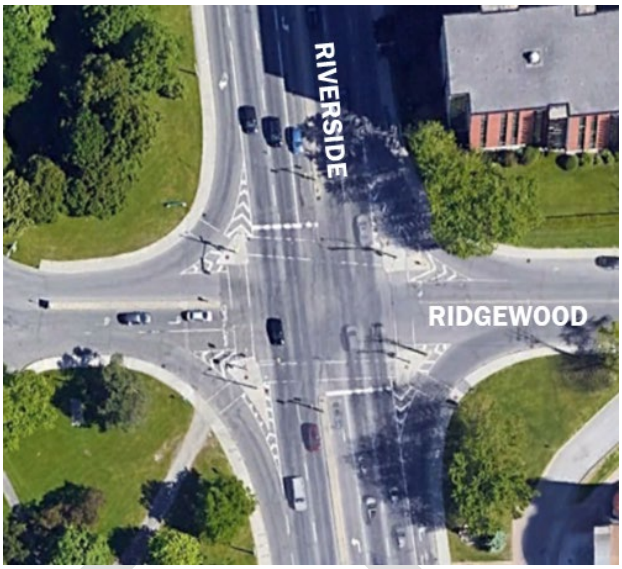
**Existing Study Area Intersections**

Riverside/Brookfield

The Riverside/Brookfield intersection is a four-legged signalized intersection. The northbound and southbound approaches consist of a left-turn lane, a channelized right-turn and three through-lanes. The eastbound and westbound approaches consist of a left-turn lane, a channelized right-turn, and a single through-lane. All movements are permitted at this intersection.

### Riverside/Ridgewood

The Riverside/Ridgewood intersection is a four-legged signalized intersection. The north and south legs of the intersection provide a left-turn lane, a channelized right turn lane and two through lanes. The eastbound approach provides a left-turn lane, a channelized right-turn and one through-lane. The westbound approach provides a shared left/through lane and a channelized right-turn. All movements are permitted at this location.




### Brookfield/Flannery

The Brookfield/Flannery intersection is a roundabout intersection with two conventional legs and two sets of on-off ramps from Airport Pkwy. The west leg consists of two entry lanes and one exit lane that widens to two lanes. The south leg consists of a single in and out lane. The north and east legs consist of two on and two off single lane ramps that connect to Airport Pkwy.


### Springland/Flannery

The Springland/Flannery intersection is a four-legged all-way stop controlled intersection. All of the approaches consist of a single all movement lane. All movements are permitted at this location.


### Springland/Ridgewood

The Springland/Ridgewood intersection is a three-legged all-way stop controlled intersection. The northbound, southbound and eastbound approaches all consist of a single all movement lane. There is an access on the east leg of the intersection for a driveway loop used for pick-up/drop-off at a residential building. All movements are permitted at this location.

## Existing Driveways to Adjacent Developments

As shown highlighted red in Figure 3, there are several adjacent driveways within 200m of the proposed sites driveways.

Figure 3: Adjacent Driveways


- Ridgewood Avenue North Side
  - 2951 Riverside Dr: a full access driveway for a residential building is located approximately 70 meters west of the proposed site access.
  - 757A Ridgewood Ave: full access to a residential building's underground parking garage is located approximately 70 meters east of the proposed site access.
- Ridgewood Avenue South Side
  - 2975 Riverside Dr: three full access driveways to the St. Elias Cathedral parking are located approximately 6, 65 and 100 meters west of the proposed site access.

- 770 Ridgewood Ave: full access driveway to a single private residency driveway is located approximately 100 meters east of the proposed site access.
- 778 Ridgewood Ave: full access driveway to a single private residency driveway is located approximately 120 meters east of the proposed site access.

### Existing Area Traffic Management Measures

Below are the existing area traffic management measures within the study area, which have been identified using Google Earth and street view:

- Channelized right-turns at all Riverside Dr intersections;
- On-street parking on Ridgewood Ave and Springland Dr;
- "MAX 40 km/h" pavement markings along Springland Dr;
- Chicane and flashing pedestrian signs provided at some of the Brookfield/Flannery roundabout legs.

### Pedestrian/Cycling Network

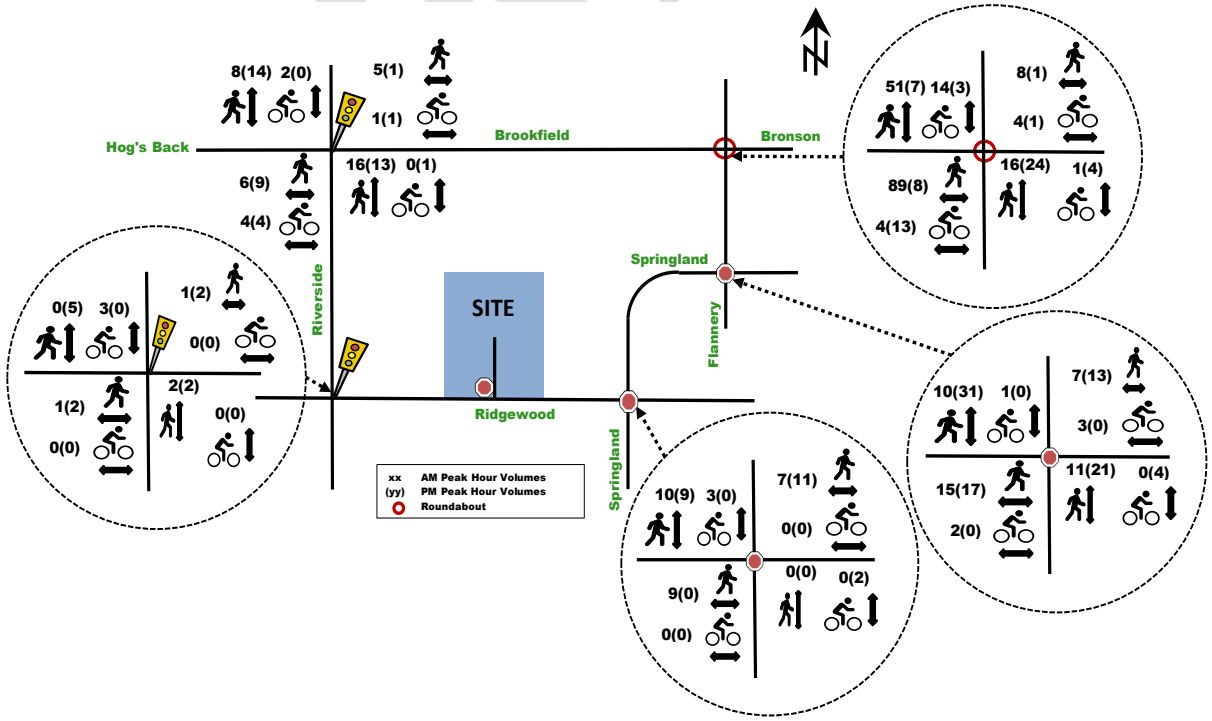
Pedestrian sidewalk facilities are provided on both sides of the roadways throughout the study area, with the exception of a short segment along Springland Dr between Hobson Rd and Flannery Dr where only a south sidewalk is provided.

With regards to cycling, a pathway on the south side of Brookfield Rd was recently (in 2020) converted to a cycle track which extends on to the existing Multi-Use Pathway (MUP) on the south side of Hog's Back Road and connects to the Rideau River Eastern Pathway system. West of Ridgewood, there is another connection point to the Rideau River Eastern Pathway system. A network of cycle-tracks and pathways can be accessed from the Brookfield/Flannery roundabout and include Brookfield Pathway which extends east, Sawmill Creek Pathway which extends south, and curbside bike lanes on both sides of Airport Pkwy heading north. Curbside bike lanes are also provided for small sections on the north side of Brookfield Rd and along both sides of Riverside Dr. Based on GeoOttawa maps, Brookfield Rd and Flannery Dr are suggested cycling routes.

Figure 4 illustrates the existing pedestrian and cycling facilities in the surrounding road network and Figure 5 shows the existing active transportation volumes at study area intersections.

Figure 4: Existing Pedestrian and Cycling Facilities


Figure 5: Existing Active Transportation



## Transit Network

The transit network for the study area is illustrated in Figure 6, with nearby bus stops illustrated in Figure 7. The transit route maps are provided in Appendix B. The following OC Transpo routes currently operate within the study area:

- **Route #90 (Greenboro <-> Hurdman)**: identified by OC Transpo as a "frequent route", this route operates at a high frequency along major roads and provides connectivity to Trillium Line 2 LRT and Confederation Line 1 LRT. Route #90 operates 7 days a week, at an average rate of every 15 minutes or less during weekday peak hours. Bus stops for this route are available on both sides of Ridgewood Ave, at the frontage of the site.
- **Route #190 (Mooney's Bay <-> Hurdman)**: identified by OC Transpo as a "local route", this route operates on customized routing and schedules, to serve local destinations. Route #190 operates twice a day. Bus stops for this route are available on both sides of Riverside Dr, approximately 360 meters northwest of the site.
- **Route #290 (McCarthy <-> Hurdman)**: identified by OC Transpo as a "connexion route", this route operates on customized routing and schedules, to provide convenient connections to and from the LRT. Route #290 operates during weekday peak hours only. Bus stops for this route are available on both sides of Springland Dr less than 250 meters east of the site.

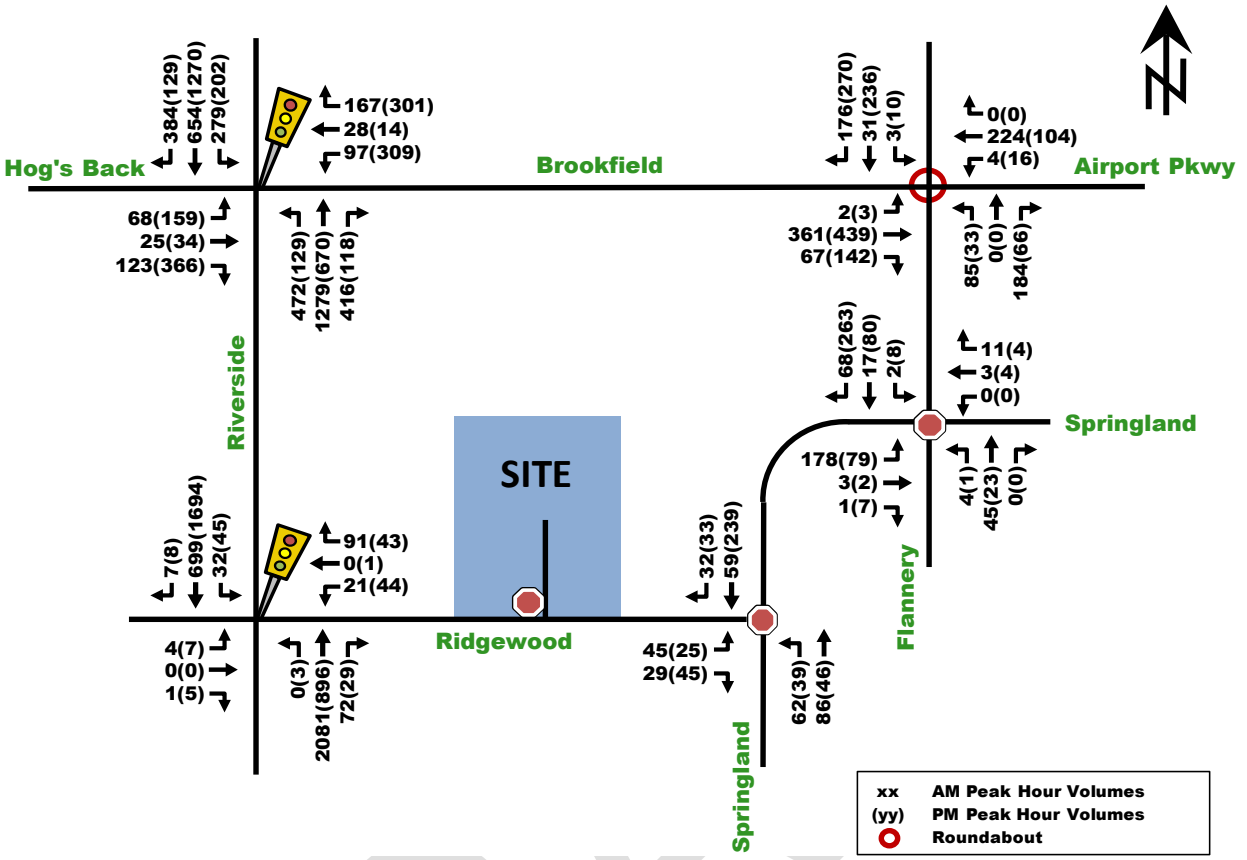
Figure 6: Area Transit Network


Figure 7: Bus Stop Locations


## Peak Hour Travel Demands

The existing peak hour traffic volumes within the study area, as illustrated in Figure 8, were obtained from the City of Ottawa. The peak hour traffic volume count data has been provided in Appendix C.

Figure 8: Existing Peak Hour Traffic Volumes




## Existing Road Safety Conditions

A five-year collision history data (2015-2019, inclusive) was requested and obtained from the City of Ottawa for all intersections and road segments within the study area. Upon analyzing the collision data, the total number of collisions observed within the study area was determined to be 120 collisions within the five-year period. Of the total collisions, 96 (80%) resulted in property damage only, while the remaining collisions resulted in a non-fatal injury. Furthermore, the type of impacts that resulted in 120 collisions were broken down into the following: 82 (68%) rear end, 18 (15%) sideswipes, 14 (12%) turning movement, 4 (3%) angle, and 2 (2%) other.

A standard unit of measure for assessing collisions at an intersection is based on the number of collisions per million entering vehicles (MEV). Locations with MEV higher than 1.0 are considered to have a higher propensity for collisions. To understand the severity, a secondary measure is conducted which looks at what percentage of collisions caused injury. Locations that have more than 30% producing non-fatal injuries could have design deficiencies or other factors making them more dangerous. At signalized intersections within the study area, reported collisions have historically taken place at a rate of:

- 0.82 Collisions/MEV with 22% producing non-fatal injuries at the intersection of Riverside/Brookfield (total of 68 collisions, where 45 (66%) resulted from rear-ends)
- 0.28 Collisions/MEV with 6% producing non-fatal injuries at the intersection of Riverside/Ridgewood (total of 17 collisions, where 14 (82%) of collision involved rear ends)
- 0.25 Collisions/MEV with 31% producing non-fatal injuries at the intersection of Riverside/Mooney's Bay (total of 13 collisions, 11 (85%) of the collisions involved rear-ends). Although the percentage of non-fatal injury is higher than 30%, the total number of collisions and the propensity of collisions at this location are notably low.

Other collisions within the study area include:

- 22 collisions in mid-block sections, with 16 or 73% of them occurring between Brookfield Rd and Ridgewood Ave on Riverside Dr.
- There was one collision in 2019 that involved a pedestrian. The collision occurred on Ridgewood Ave, between Riverside Dr and Dupont St, which resulted in property damage only.
- 3 collisions involving cyclists, 2 occurring at Riverside/Brookfield intersection and 1 at Riverside/Ridgewood. All collisions resulted in non-fatal injury.

The source collision data as provided by the City of Ottawa and related analysis is provided as Appendix D.

### 2.1.3. PLANNED CONDITIONS

#### Planned Study Area Transportation Network Changes

Transit Network

The City of Ottawa Transportation Master Plan (TMP) does not illustrate changes to the surrounding transit network with regards to the 2031 affordable network plan. However, the ultimate network plan illustrates Riverside Dr as a transit priority corridor with isolated measures between Hunt Club Rd and Heron Rd.

Cycling Network

Within the Ultimate Cycling Plan, Riverside Dr, Brookfield Rd, and Hog's Back Rd are all designated as future 'spine routes'. Flannery Dr, which is currently a 'suggested route', is designated as future 'local route'.

#### Other Area Developments

The following section outlines adjacent developments in the surrounding area that were considered in the TIA. Using the City of Ottawa's Development Application Search tool, the following development applications have been identified in the study area.

**740 SPRINGLAND DR**

Norberry Residences is proposing an extension to the existing residential complex. The extension would comprise of three 4.5-storey buildings with a total of 231 new units. A TIA prepared by Castleglenn Consultants projects two-way vehicle trips of approximately 85 and 93 veh/h during the AM and PM peak hours respectively. This development is anticipated to be fully constructed prior to the construction of the 729 Ridgewood development.

**770 BROOKFIELD RD**

Hobin Architecture is proposing a mixed-use development consisting of 13,600 $ft^2$ of commercial retail and 808 apartment units. A TIA prepared by Parsons projects two-way vehicle trips of approximately 95 to 120 veh/h during the AM and PM peak hours respectively. This development is anticipated to be fully constructed prior to the construction of the 729 Ridgewood development.

**3071 RIVERSIDE DR**

Canoe Bay Development Inc is proposing a senior's home development, with two 3-storey mixed-use building, a 6-storey retirement complex, townhouses and low-rise apartment dwellings. The development will consist of 110 residential units, 513 senior/retirement units and 21,795 ft2 of retail space. This development is anticipated to be fully constructed prior to the construction of the 729 Ridgewood development.

## 2.2. Study Area and Time Periods

The proposed site is a residential development that is planned to be constructed by 2024. As such, the horizon years being analyzed in this report are the 2024 and 2029 (five-years after full buildout) horizon years, using the weekday morning and afternoon peak hour time periods. Proposed study area intersections and boundary roads are outlined below and highlighted in Figure 9.

- Riverside/Brookfield/Hog's Back intersection;
- Riverside/Ridgewood intersection;
- Brookfield/Flannery intersection;
- Springfield/Flannery intersection;
- Springfield/Ridgewood intersection;
- Along Ridgewood Drive adjacent to the site;

Figure 9: Study Area


## 2.3. Exemption Review

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

Table 1: Exemptions Review Summary

| Module | Element | Exemption Consideration |
|---|---|---|
| 4.1 – 4.4 Design Review Component | All elements | Not required for applications involving ZBLA. However, a brief description may be provided. |
| 4.8 Network Concept | 4.8 Network Concept | Only required if proposed development is anticipated to generate more than 200 person-trips over the permitted zoning. |

# 3. Forecasting Report

## 3.1. Development Generated Travel Demand

### 3.1.1. TRIP GENERATION AND MODE SHARES

**Existing Development Trips**

As mentioned previously, the site is currently occupied by a strip mall consisting of a grocery store, a pharmacy and insurance brokers, which generate trips for the site in existing conditions. These trips are accounted for as they reduce the number of 'new' trips that would be generated by the proposed development at this site. Note that, using google maps street view, it was determined that the grocery store has been closed since at least 2019. Most counts used for this study (provided in Appendix C) are dated 2019 and 2020, as such, they are assumed to already exclude any would be trips of the grocery store. For the remainder of the strip mall, the ITE Trip Generation Manual (10th edition) can be used to obtain trip rates.

The “Shopping Centre” land use from the ITE Manual has been assumed to encompass the remaining land uses of the strip mall. However, this would result in an overly conservative estimate of trips, as the strip mall is relatively old and consists of specialty stores that would not generate a large number of trips at once. For this purpose, the shopping centre trip rates have been reduced by 50% as shown in Table 2.

Table 2: Existing Strip Mall Trip Rate Adjustment

| Land Use | Data Source | Trip Rates | |
|---|---|---|---|
| | | AM Peak Hour | PM Peak Hour |
| Shopping Centre | ITE 820 | T = 0.94(x); | T = 3.81(x); |
| Shopping Centre 50% | | T = 0.47(x); | T = 1.90(x); |
| *Notes:* *T = Average Vehicle Trip Ends* *x = Gross Floor Area (GFA) (1000 ft²)* | | | |

The gross floor area used for the strip mall was determined using the GeoOttawa measuring tool, as shown in Figure 10, which indicates a total area of approximately 15,500 ft².

Figure 10: Existing Strip Mall Gross Floor Area


Using the total gross floor area and the readjusted shopping centre trip rates, the person trips generated by the existing strip mall can be calculated. Note that the trip rates are multiplied by a factor of 1.28, as per TIA standards, to account for typical North American auto occupancy values of approximately 1.15 and combined transit and non-motorized modal shares of less than 10%. The resulting total person trips/hour for the existing strip mall are provided in Table 12. The inbound and outbound percentages were also obtained from the ITE Manual.

Table 3: Existing Strip Mall Person Trips

| Land Use | Area (ft²) | AM Peak (Person Trips/h) | | | PM Peak (Person Trips/h) | | |
|---|---|---|---|---|---|---|---|
| | | In (62%) | Out (38%) | Total | In (48%) | Out (52%) | Total |
| Shopping Centre | 15,500 | 5 | 4 | 9 | 18 | 20 | 38 |

As such, the strip mall is assumed to generate a total of 9 and 38 person trips during the morning and afternoon peak hours respectively.

## Proposed Development Trips

The proposed development will consist of 387 residential units within 4 to 15-storey high apartment buildings, as well as 9,213 ft² of commercial space.

### Residential Trips Generated

The appropriate trip generation rates for a high-rise apartment land use were obtained from the 2020 TRANS Trip Generation Manual. Table 3 in the Manual provides person-trip rates during the peak AM and PM periods (7am-9:30am and 3:30PM-6PM). The trip rates are summarized in Table 4 below.

Table 4: Residential Trip Generation Trip Rates

| Land Use | Data Source | Trip Rates | |
|---|---|---|---|
| | | AM Peak Period (7-9:30am) | PM Peak Period (3:30-6pm) |
| High-Rise Apartment Buildings | TRANS 2020 | T = 0.8(du); | T = 0.9(du); |
| *Notes:* *T = Average Vehicle Trip Ends* *du = Dwelling unit* | | | |

Using the trip rates provided in Table 4, the total number of person trips generated during the morning and afternoon peak periods can be found in Table 5.

Table 5: Apartment Units Peak Period Person Trip Generation

| Land Use | Dwelling Units | AM Peak Period Person Trips | PM Peak Period Person Trips |
|---|---|---|---|
| High-Rise Apartment Buildings | 387 | 310 | 348 |

The proposed development is anticipated to generate 310 and 348 person trips during the morning and afternoon peak periods, respectively. The total peak period person trips in Table 5 are then divided into different travel modes, as shown in Table 6, using mode share percentages obtained from the 2020 TRANS Manual, which is aggregated for the Alta Visa zone.

Table 6: Peak Period Trips Mode Shares Breakdown

| Travel Mode | Mode Share | AM Peak Period Person Trip | Mode Share | PM Peak Period Person Trips |
|---|---|---|---|---|
| Auto Driver | 38% | 118 | 45% | 157 |
| Auto Passenger | 12% | 37 | 16% | 56 |
| Transit | 41% | 127 | 28% | 97 |
| Cycling | 2% | 6 | 2% | 7 |
| Walking | 7% | 22 | 9% | 31 |
| **Total Person Trips** | **100%** | **310** | **100%** | **348** |

Standard traffic analysis is usually conducted using the morning and afternoon peak hour trips as they represent a worst-case scenario. In the 2020 TRANS Manual, Table 4 provides conversions rates from peak period to peak hours for different mode shares. The conversion rates are provided in Table 7 below.

Table 7: Peak Period to Peak Hour Conversion Factors (2020 TRANS Manual)

| Travel Mode | Peak Period to Peak Hour Conversion Factors | |
|---|---|---|
| | AM | PM |
| Auto Driver | 0.48 | 0.44 |
| Passenger | 0.31 | 0.29 |
| Transit | 0.55 | 0.47 |
| Bike | 0.58 | 0.48 |
| Walk | 0.58 | 0.52 |

Note that conversion factors for auto passenger trips are not available in the 2020 TRANS Manual. To obtain the passenger trip factor it is assumed that the total person trip peak hour conversion factor is the average of the provided adjustment factors minus the passenger trip peak hour conversion factor and has been calculated as shown in the example below:

$$0.5 = \frac{x + 0.48 + 0.55 + 0.58 + 0.58}{5}$$

$$x = 2.5 - 0.48 - 0.55 - 0.58 - 0.58$$

$$x = 0.31 \rightarrow AM\ passenger\ trip\ peak\ hour\ conversion\ factor$$

Using the conversion rates in Table 7 and the peak period person trips for different travel modes in Table 6, the peak hour trips for different travel modes can be calculated as shown in Table 8. The actual peak hour mode share percentages can be reverse calculated using the percentage of each travel mode to the total person trips.

Table 8: Peak Hour Trips Mode Share Breakdown

| Travel Mode | Mode Share | AM Peak Hour Trips | Mode Share | PM Peak Hour Trips |
|---|---|---|---|---|
| Auto Driver | 37% | 57 | 46% | 69 |
| Auto Passenger | 7% | 11 | 11% | 16 |
| Transit | 45% | 70 | 30% | 46 |
| Cycling | 2% | 3 | 2% | 3 |
| Walking | 8% | 13 | 11% | 16 |
| **Total Person Trips** | **100%** | **154** | **100%** | **150** |

As shown in Table 8, the proposed development is anticipated to generate a total of 154 and 150 person trips during the morning and afternoon peak hours. However, the TRANS mode share assumptions were adjusted to reflect the local context more appropriately, as shown in Table 9. It was assumed that the same mode share distribution would occur in the morning and afternoon peak hours.

The transit and walk mode shares were lowered based on the suburban context, and the lack of rapid transit adjacent to the site. The auto-driver mode share was increased accordingly, while the passenger mode share was adjusted to maintain an auto-occupancy factor of approximately 1.20, closer to the city-wide average. Cycling mode share was increased to account for the proximity of major pathways at Mooney's Bay following the Rideau River.

Table 9: Adjusted Mode Share Percentages and Peak Hour Trips

| Travel Mode | Mode Share | AM Peak Hour Trips | PM Peak Hour Trips |
|---|---|---|---|
| Auto Driver | 60% | 92 | 90 |
| Auto Passenger | 12% | 18 | 18 |
| Transit | 20% | 31 | 30 |
| Cycling | 5% | 8 | 8 |
| Walking | 3% | 5 | 4 |
| **Total Person Trips** | **100%** | **154** | **150** |

Inbound and outbound percentages were obtained from Table 9 of the 2020 TRANS Manual and applied to each travel mode in Table 9 as shown in Table 10.

Table 10: Inbound/Outbound Morning and Afternoon Peak Hour Trips

| Travel Mode | Mode Shares | AM Peak (Person Trips/h) | | | PM Peak (Person Trips/h) | | |
|---|---|---|---|---|---|---|---|
| | | In (31%) | Out (69%) | Total | In (58%) | Out (42%) | Total |
| Auto Driver | 60% | 29 | 63 | 92 | 52 | 38 | 90 |
| Passenger | 12% | 6 | 12 | 18 | 10 | 8 | 18 |
| Transit | 20% | 10 | 21 | 31 | 17 | 13 | 30 |
| Bike | 5% | 2 | 6 | 8 | 5 | 3 | 8 |
| Walk | 3% | 2 | 3 | 5 | 2 | 2 | 4 |
| **Total Person Trips** | **100%** | **49** | **105** | **154** | **86** | **64** | **150** |

As shown in Table 10, approximately 90 new vehicular trips and 30 new transit trips are expected in the morning and afternoon peak hours from the proposed development.

## Commercial Trips Generated

Appropriate Trip Generation rates for the commercial land use were obtained from the ITE Trip Generation Manual (10th edition), assuming "Shopping Centre" land use. The trip rates for the commercial land use are summarized in Table 11.

Table 11: Commercial Trip Generation Trip Rates

| Land Use | Data Source | Trip Rates | |
|---|---|---|---|
| | | AM Peak Hour | PM Peak Hour |
| Shopping Centre (commercial space) | ITE 820 | T = 0.94(x); | T = 3.81(x); |
| *Notes:* *T = Average Vehicle Trip Ends* *x = Gross Floor Area (GFA) (1000 ft²)* | | | |

Person trips per hour for the commercial land use are calculated directly using the trip rates shown in Table 11 and multiplied by a factor of 1.28, as per TIA standards, to account for typical North American auto occupancy values of approximately 1.15 and combined transit and non-motorized modal shares of less than 10%. The resulting total person trips/hour for the commercial space of the proposed development are provided in Table 12. The inbound and outbound percentages were also obtained from the ITE Manual.

Table 12: Commercial Space Peak Hour Person Trip Generation

| Land Use | Area (ft²) | AM Peak (Person Trips/h) | | | PM Peak (Person Trips/h) | | |
|---|---|---|---|---|---|---|---|
| | | In (62%) | Out (38%) | Total | In (48%) | Out (52%) | Total |
| Shopping Centre (commercial space) | 9,213 | 6 | 5 | 11 | 21 | 24 | 45 |

For simplicity, the assumed existing strip mall person trips in Table 3 can be subtracted from the projected person trips of the commercial land use, resulting in a 'net' number of trips generated by the "Shopping Centre" of the proposed development, as shown in Table 13.

Table 13: Net New Person Trips of Shopping Centre (Commercial Space)

| Land Use | AM Peak (Person Trips/h) | | | PM Peak (Person Trips/h) | | |
|---|---|---|---|---|---|---|
| | In (62%) | Out (38%) | Total | In (48%) | Out (52%) | Total |
| Shopping Centre (commercial space) | 1 | 1 | 2 | 3 | 4 | 7 |

The net change in estimated commercial trips was minimal. The addition of high-density residential units on site was expected to reduce external trips, as local residents would make up the majority of customers. Therefore, no new commercial trips were expected to be generated at full buildout.

**Total Trips Generated**

Therefore, the estimated total trips by mode generated by the proposed development can be found in Table 10. Approximately **90 new vehicular trips** and **30 new transit trips** are expected to be generated by the proposed development in both the morning and afternoon peak hours.

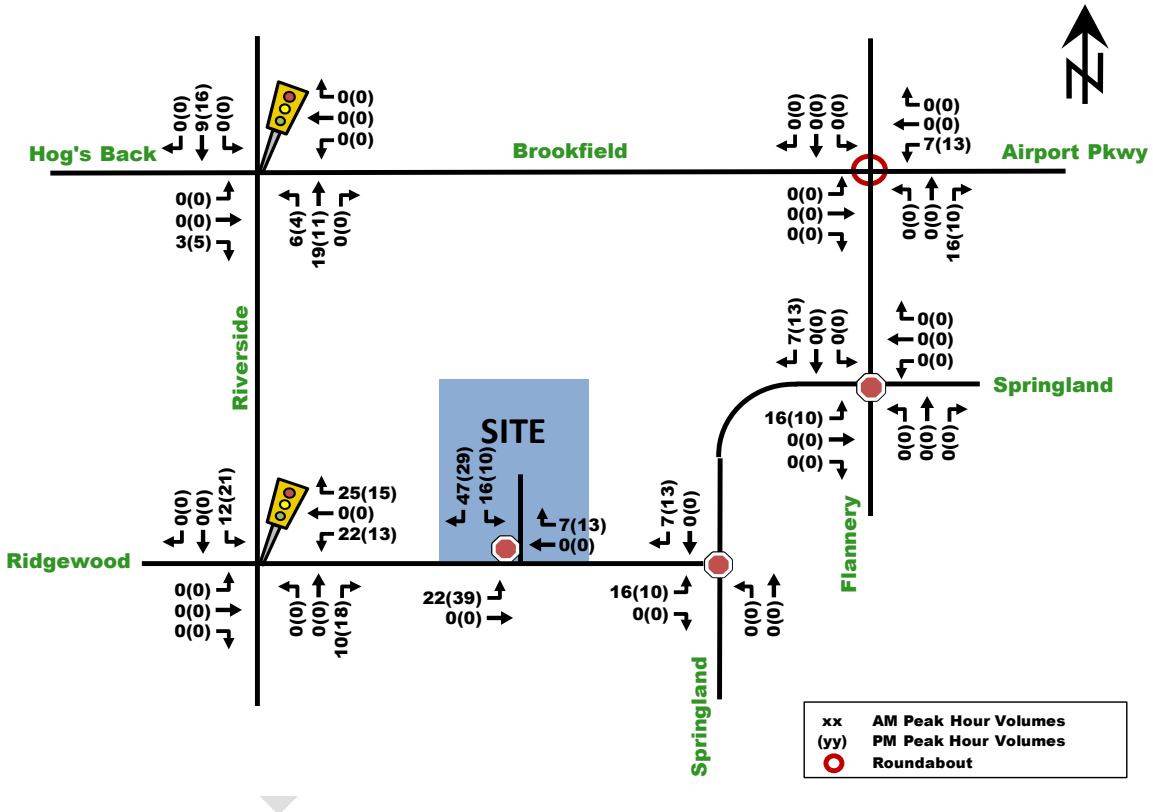
### 3.1.2. TRIP DISTRIBUTION AND ASSIGNMENT

Based on the 2011 OD Survey (Alta Vista district) and the location of adjacent arterial roadways and neighbourhoods, the distribution of site-generated traffic volumes was estimated as follows:

- 45% to/from the north, via Riverside Dr and the Airport Pkwy;
- 25% to/from the south, via Riverside Dr;
- 10% to/from the east, via Riverside Dr; and,
- 20% to/from the west, Via Riverside Dr and Hog's Back Rd.

The anticipated site-generated auto trips for the proposed development from Table 10 were then assigned to the road networks as shown in Figure 11.

Figure 11: Proposed Development Site-Generated Traffic




## 3.2. Background Network Traffic

### 3.2.1. TRANSPORTATION NETWORK PLANS

Refer to Section 2.1.3: Planned Study Area Transportation Network Changes.

### 3.2.2. BACKGROUND GROWTH

Given that the proposed development will be located in the inner suburbs of the City of Ottawa, traffic along study area roadways is not anticipated to increase drastically within the future horizon years. Nonetheless, a 1% background growth has been applied to Riverside Dr, Hog's Back Rd and Brookfield Rd to account for future

traffic increases along these roadways. Note that this is consistent with the approved TIA report for the future 740 Springland Drive development, which also applied a 1% background growth to Riverside Dr. Figure 12 provides the 2024 future background traffic and Figure 13 provides the 2029 future background traffic.

Figure 12: Future Background 2024 Traffic Volumes

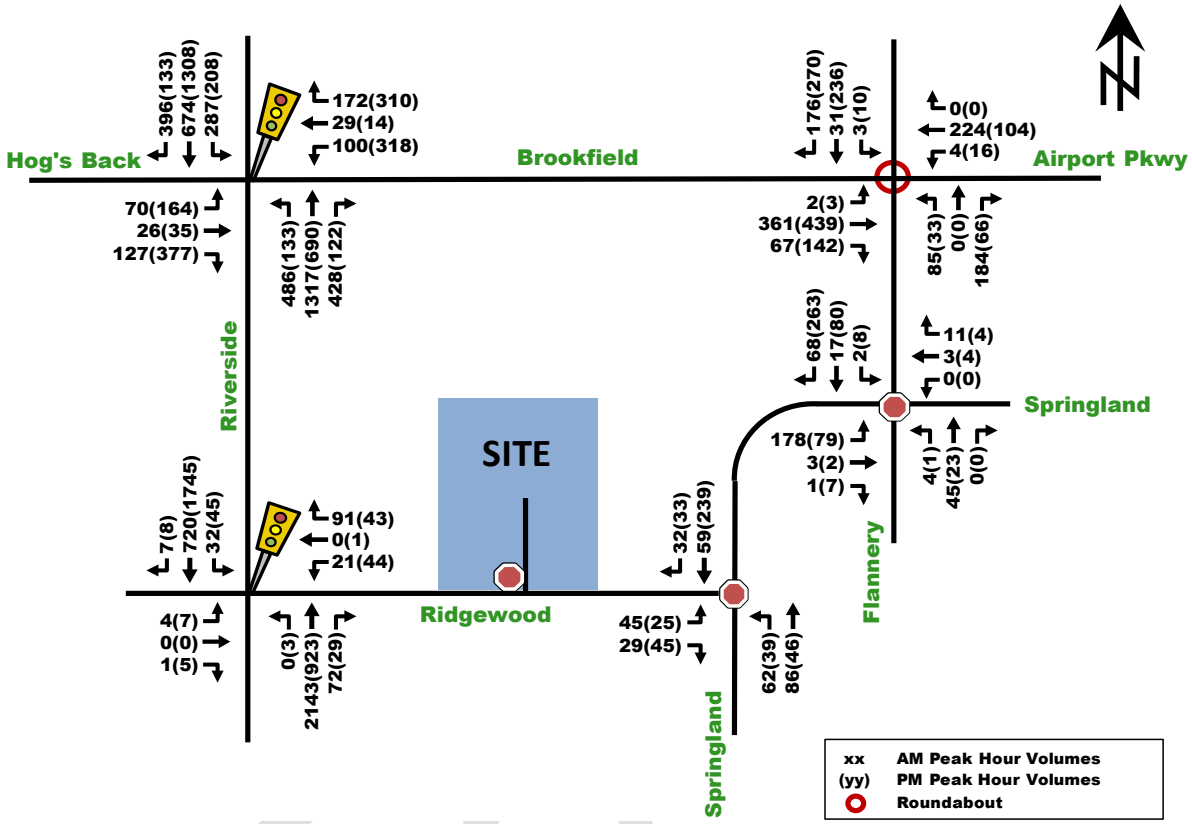
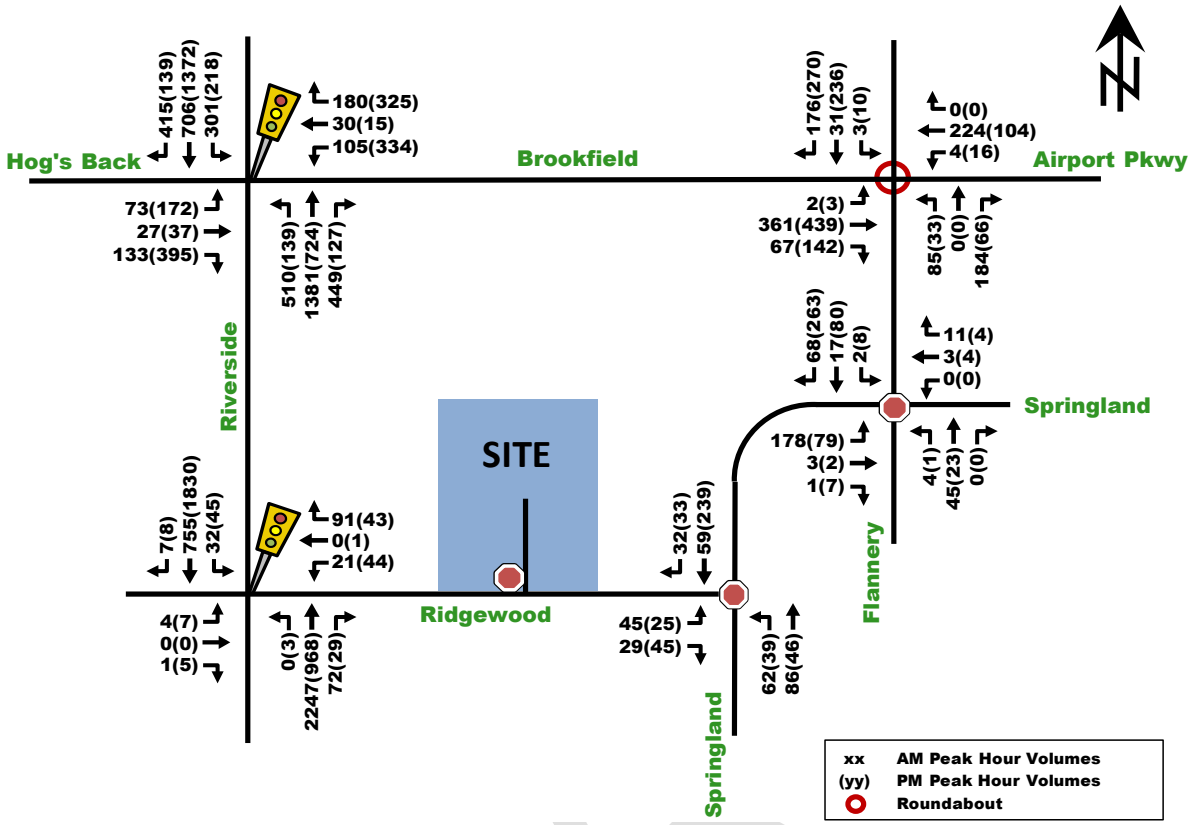


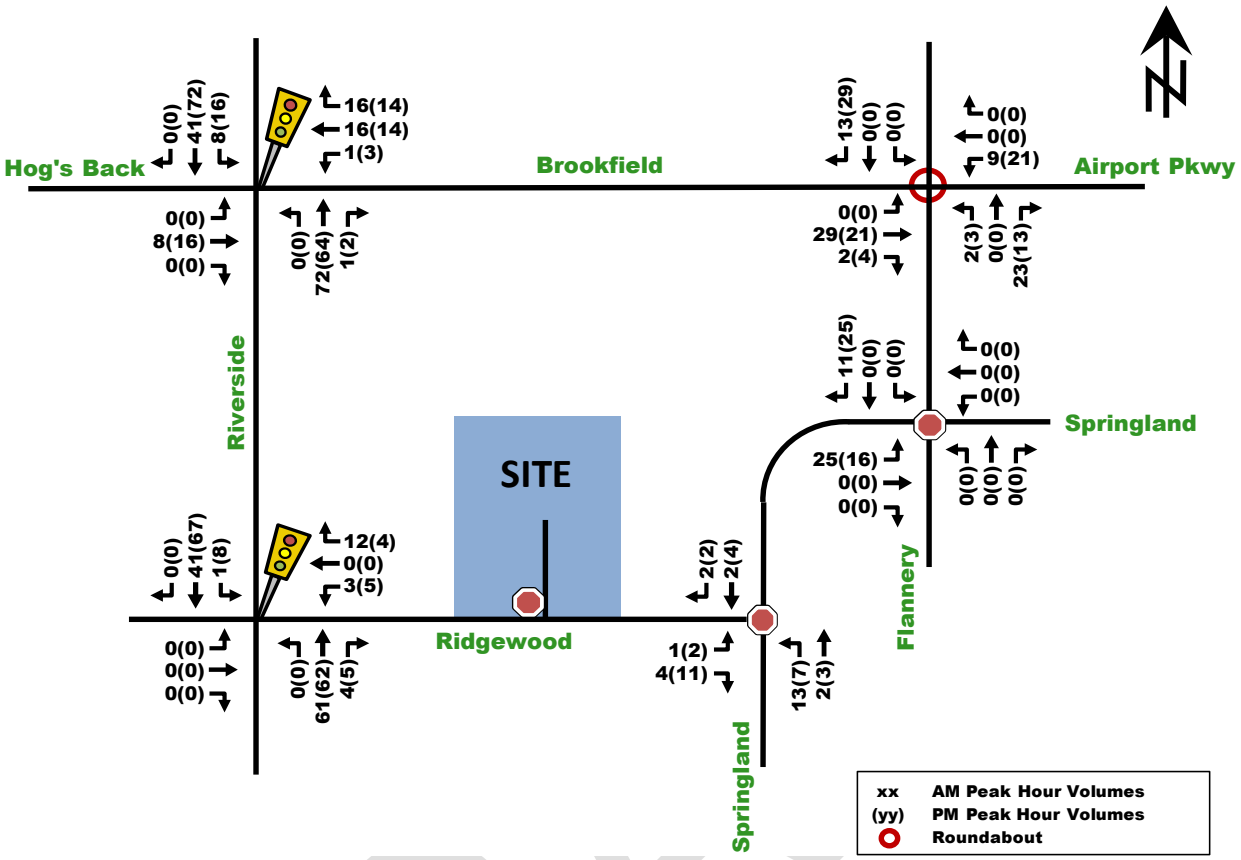
Figure 13: Future Background 2029 Traffic Volumes




### 3.2.3. OTHER DEVELOPMENTS

Description of other area developments taking place within the study area was provided in Section 2.1.3: Other Area Developments. Traffic volumes generated by all three identified future adjacent developments will be considered in the TIA. The total traffic volumes anticipated to be generated by the future adjacent development in the study area are illustrated in Figure 14.

Figure 14: Future Adjacent Developments Total Site-Generated Traffic Volumes




The anticipated buildout year of the future adjacent development is anticipated to be prior to the buildout date of the proposed 729 Ridgewood development. As such, their traffic volumes will be included in both the total projected 2024 and 2029 traffic volumes. The volumes in Figure 14 can be added to the future background volumes in Figure 12 and Figure 13 to create total future background 2024 and 2029 traffic volumes illustrated in Figure 15 and Figure 16.

Figure 15: Total Future Background 2024 Traffic Volumes

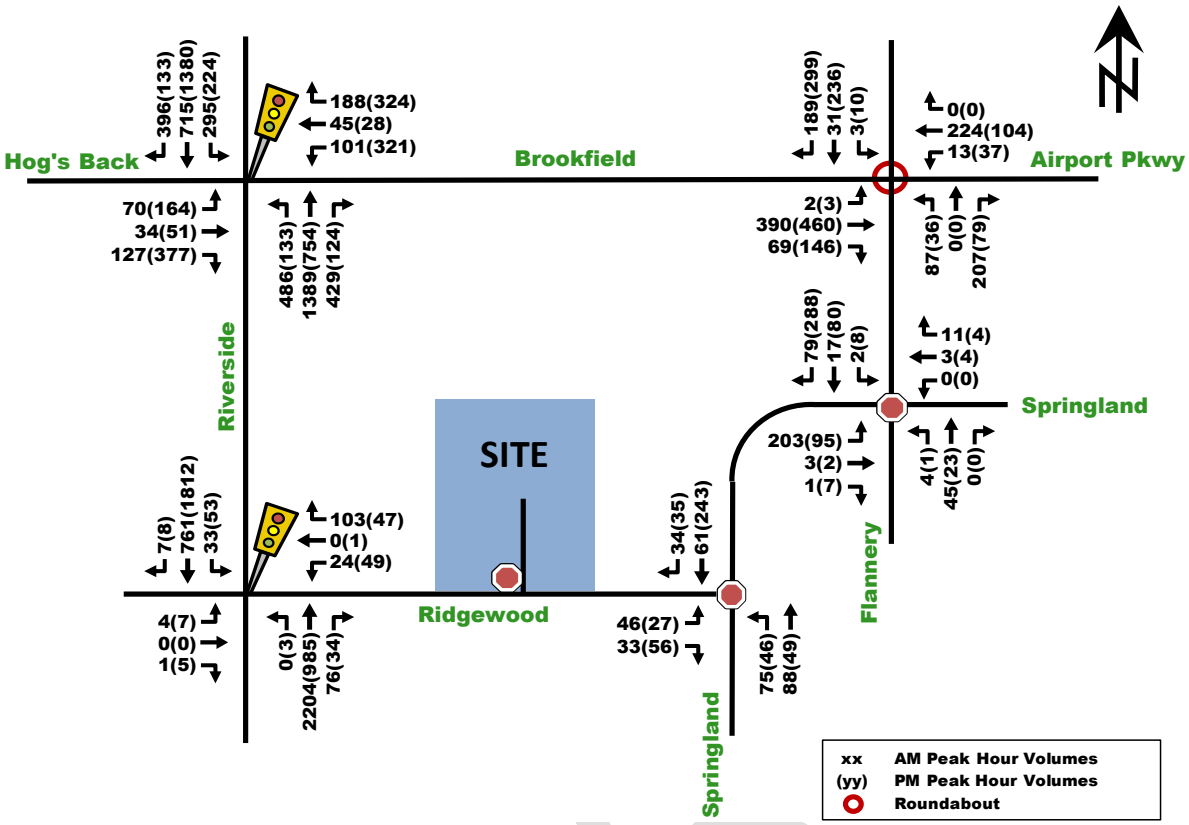
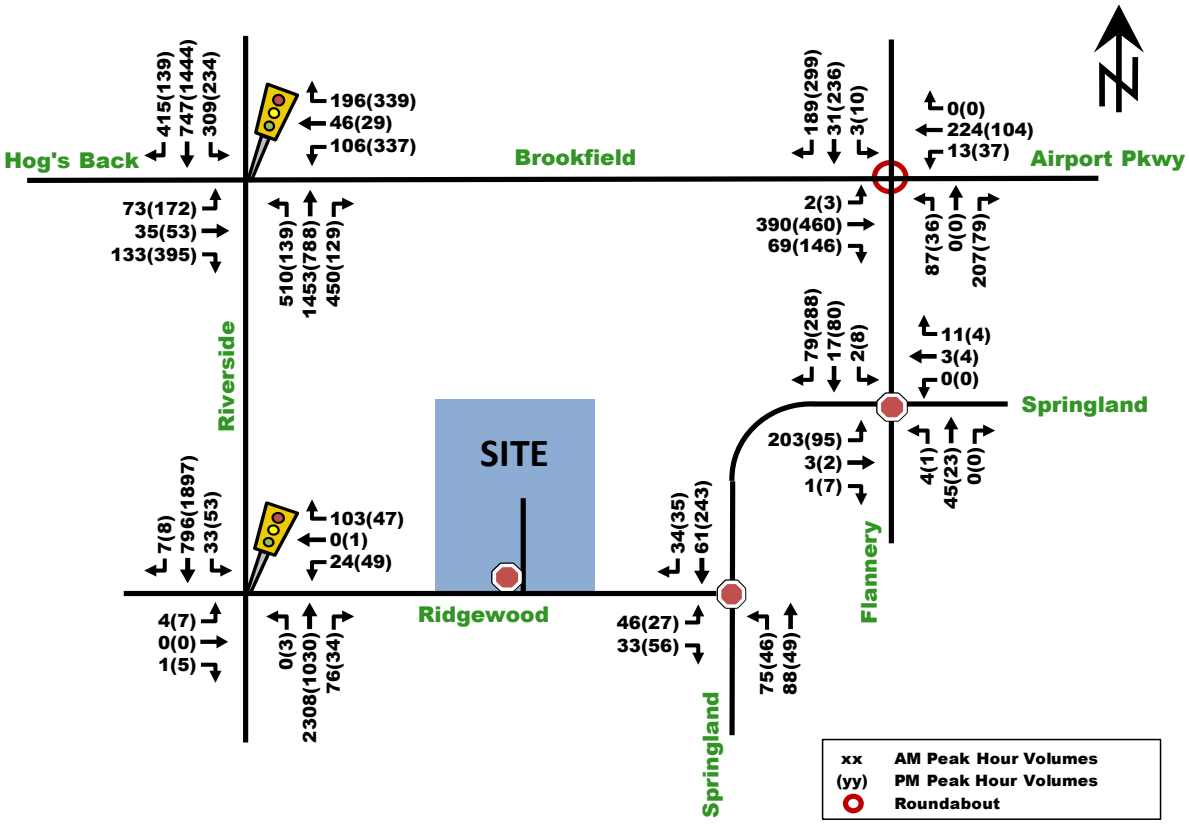



Figure 16: Total Future Background 2029 Traffic Volumes



## 3.3. Demand Rationalization

The total projected future traffic volumes can be determined by superimposing the site-generated traffic volumes in Figure 11, onto the total future background traffic volumes in Figure 15 and Figure 16, resulting in the total projected traffic volumes 2024 and 2029 illustrated in Figure 17 and Figure 18. The proposed development is anticipated to have little impact on the vehicle operations along the study area intersections. Further analysis of study area intersections is provided as part of Section 4.9.2.

Figure 17: Total Projected 2024 Traffic Volumes

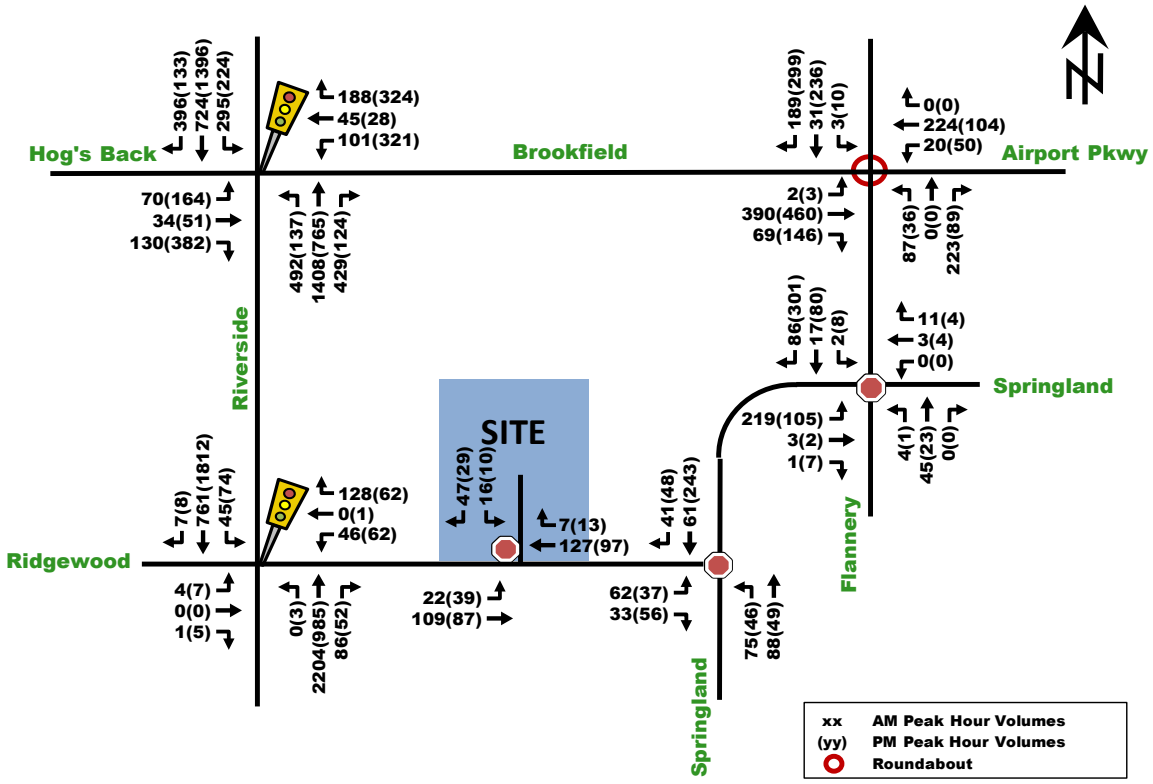
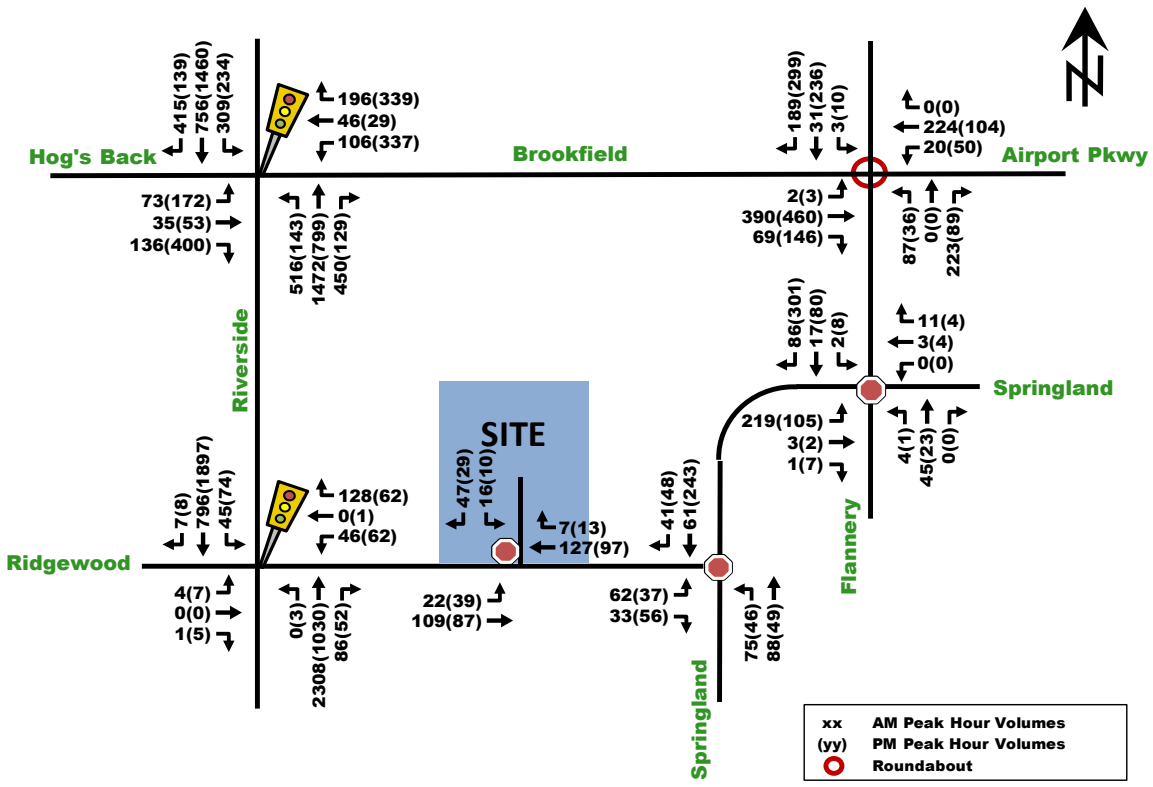


Figure 18: Total Projected 2029 Traffic Volumes




# 4. Analysis

## 4.1. Development Design

As this is a ZBLA, design related elements will be provided in more detail in the future Site Plan Application submission of the proposed development. The majority of vehicle and bicycle parking spaces will be provided in an underground parking garage, with some surface vehicle parking spaces provided. Within the site, sidewalk facilities will be provided to allow safe and efficient pedestrian maneuverability and access to all building entrances. There are no anticipated changes to the existing transit routes in the surrounding road network. The City of Ottawa's TDM-supportive Development Design and Infrastructure has been provided in Appendix E.

## 4.2. Parking

Based on City of Ottawa Parking Provisions, Schedule 1A, the proposed development is located in "Area C". A total of 572 vehicle parking spaces will be provided for the proposed development. Of the total, 559 spaces will be provided in a two-level underground parking lot, while 13 will be provided on the surface, within the site.

For the residential land use, 465 vehicle parking spaces are proposed, with an additional 78 visitor parking spaces. For the commercial land use, 29 vehicle parking spaces are proposed. Included in the total number of parking spaces are 14 accessible vehicle parking spaces. For bicycle parking, 194 spaces are provided for residential use and 4 are provided for commercial use, for a total of 198 spaces. Table 14 summarizes the parking requirements of the proposed development and the proposed number of spaces currently provided.

Table 14: The Required and Provided Vehicle and Bicycle Parking Supplys

| Land Use | Size | Parking Rates | | | Required Spaces | | | Proposed Spaces | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Base | Visitors | Bicycle | Base | Visitors | Bicycle | Base | Visitors | Bicycle |
| High-Rise Residential | 387 Units | 1.2 per unit | 0.2 per unit | 0.5 per unit | 465 | 78 | 194 | 465 | 78 | 194 |
| Commercial | 856 $m^2$ | 3.4 per 100 $m^2$ | - | 1.0 per 250 $m^2$ | 29 | - | 4 | 29 | - | 4 |
| | | | | **Total** | **494** | **78** | **198** | **494** | **78** | **198** |

As such, the proposed number of parking spaces meet all parking requirements for vehicle and bicycle parking spaces.

## 4.3. Boundary Street Design

The detailed Multi-Modal Level of Service (MMLOS) analysis for boundary streets and signalized intersections will be provided in the future Site Plan Application.

## 4.4. Access Intersection Design

Vehicle access to the proposed development will be provided via a single access on the north side of Ridgewood Ave. The access will use Stop control for vehicles exiting the site. Within the site internal driveways, there are two ramps that provide access to the underground parking garage, one ramp is located between building 3 and 4, while another ramp is located to the north of building 5. Existing adjacent accesses to the proposed development access are discussed in Section 2.1.2: Existing Driveways to Adjacent Developments.

## 4.5. Transportation Demand Management

The TDM Measures Checklist has been provided in Appendix E.

## 4.6. Neighbourhood Traffic Management

This module compares the maximum one-way traffic of a local or collector road during morning and afternoon peak hours, to the recommended thresholds outlined in the City of Ottawa TIA Guidelines. The main access/egress streets included in this analysis were Ridgewood Ave, Springland Dr and Flannery Dr.

The thresholds provided in the TIA Guidelines indicate a maximum one-way traffic of 300 veh/h for collector roads. Using the total projected 2029 traffic volumes in Figure 18, future traffic volumes along the respective collector roads can be compared to the threshold as follows:

- For Ridgewood Ave, the maximum one-way traffic volume is approximately 172 veh/h between Riverside Dr and Springland Dr, which occurs during the morning peak hour. This volume is well below the 300 veh/h threshold of a collector road

- For Springland Dr between Ridgewood Ave and Flannery Dr, the 300 veh/h threshold is slightly exceeded at the WB egress of the intersection of Springland/Flannery, with an afternoon volume of 306 veh/h. Side street movements at this intersection have generally low volumes. As such, there are no concerns with regards to traffic operations.

- For Flannery Dr, north of Ridgewood Ave, the 300 veh/h threshold is currently exceeded in the southbound direction from Brookfield Rd and will continue to be so in the future, with an afternoon volume of 432 veh/h. By the time traffic arrives at the SB approach of the intersection of Springland/Flannery, it is reduced to approximately 389 veh/h during the afternoon peak hour, most of which make a right-turn and continue onto Springland Dr.

However, the design of Flannery Dr between Brookfield Rd and Ridgewood is more consistent with a major collector road. This section clearly has far more stringent access management compared to Springland Dr, which has direct residential frontage with driveway access to the roadway. There are also daytime on-street parking restrictions, which reduces friction and increases its overall vehicular capacity, whereas Springland Dr has no time restrictions.

The City recommended major collector roadway threshold is 600 vehicles per hour per direction, which adequately accommodates anticipated vehicle traffic in the future. At this time, there are no indications the existing vehicular volumes cannot be accommodated.

Ultimately, this section of the roadway can be monitored by the City of Ottawa's Area Traffic Management unit if needed to determine if reclassification or modification of the roadway is necessary. The City may also incorporate traffic calming measures such as road narrowing, pavement markings and signage to address potential safety concerns if required.

## 4.7. Transit

Transit facilities are anticipated to continue operating in the future as mentioned in Section 2.1.2: Transit Network. The proposed development is anticipated to generate 31 and 30 transit trips during the morning and afternoon peak hours respectively. Bus route #90 is a frequent route that travels in both directions on Ridgewood Ave and arrives 4 to 5 times during peak hours, for a total of 8 to 10 buses in both directions. As such, the proposed development will have little impact to the surrounding transit network.

## 4.8. Review of Network Concept

Exempt – see Table 1.

## 4.9. Intersection Design

### 4.9.1. INTERSECTION CONTROL

Stop control is anticipated to be sufficient for vehicles exiting the proposed site access.

### 4.9.2. INTERSECTION DESIGN

Synchro 10 Trafficware was used to analyze intersection performance of signalized and unsignalized intersections within the study area. For the Brookfield/Flannery roundabout, the Sidra software was used for analysis. Critical movements at each of the intersections were assessed based on either the movement with the highest volume-to-capacity ratio (at signalized intersections), or the movement experiencing the highest average delay (at unsignalized and roundabout intersections).

Generally, an overall ('as a whole') level-of-service (LOS) 'D' or better is recommended for intersection operations during the peak hour periods. For signalized intersections, an overall LOS 'E' is generally considered acceptable at major arterial intersections in the City of Ottawa, as multi-lane arterial roads are intended to accommodate high levels of traffic volumes during peak hour periods.

It should be noted that, as per the TIA Guidelines, the Peak Hour Factor (PHF) used for analysis was 0.9 in existing conditions and 1.0 in all future scenario conditions. All Synchro and Sidra report outputs for existing and future conditions have been provided in Appendix F.

#### Existing Conditions

Table 15 below summarizes the intersection performance of study area intersections, based on the existing conditions traffic volumes illustrated in Figure 8.

Table 15: Existing Conditions Intersection Performance

| Intersection | Weekday AM Peak (PM Peak) | | | | | |
|---|---|---|---|---|---|---|
| | Critical Movement | | | Intersection 'As a Whole' | | |
| | LOS | max. v/c or avg. delay (s) | Movement | Delay (s) | LOS | v/c |
| Riverside Dr/Hog's Back Rd/Brookfield Rd (S) | F(F) | 1.10(1.42) | NBT(WBL) | 66.1(57.6) | E(D) | 0.98(0.90) |
| Riverside Dr/Ridgewood Ave (S) | E(B) | 0.93(0.68) | NBT(SBT) | 18.0(8.8) | D(B) | 0.90(0.67) |
| Springland Dr/Ridgewood Ave (U) | A(A) | 8.4(9.4) | NB(SB) | 8.0(8.9) | A(A) | - |
| Flannery Dr/Springland Dr (U) | A(A) | 9.0(9.4) | EB(SB) | 8.4(9.2) | A(A) | - |
| Brookfield Rd/Flannery Dr (R) | A(A) | 6.0(6.1) | NB(NB) | 3.9(4.0) | A(A) | - |
| Note: Analysis of signalized intersections assumes a PHF of 0.9 and a saturation flow rate of 1800 veh/h/lane.<br>(S) – Signalized intersection, critical movement based on max v/c<br>(U) – Unsignalized intersection, critical movement based on highest average delay<br>(R) – Roundabout intersection, critical movement based on highest average delay | | | | | | |

As shown in Table 15, the intersection of Riverside/Brookfield 'as a whole' operates near capacity during the morning peak hour, with critical NBT and WBL movements operating at capacity during the morning and afternoon peak hours respectively. The intersection of Riverside/Ridgewood operates acceptably 'as a whole', with the critical NBT movement operating near capacity during the morning peak hour. The unsignalized and roundabout intersections all operate at a LOS 'A' during both peak hours.

## Total Future Background 2024

Table 16 below summarizes the Synchro traffic operations at study area intersections, based on the total future background 2024 conditions in Figure 15.

Table 16: Future Background 2024 Intersection Performance

| Intersection | Weekday AM Peak (PM Peak) | | | | | |
|---|---|---|---|---|---|---|
| | Critical Movement | | | Intersection 'As a Whole' | | |
| | LOS | max. v/c or avg. delay (s) | Movement | Delay (s) | LOS | v/c |
| Riverside Dr/Hog's Back Rd/Brookfield Rd (S) | F(F) | 1.07(1.33) | NBT(WBL) | 59.2(52.1) | E(D) | 0.96(0.86) |
| Riverside Dr/Ridgewood Ave (S) | D(B) | 0.88(0.65) | NBT(SBT) | 15.2(8.6) | D(B) | 0.85(0.64) |
| Springland Dr/Ridgewood Ave (U) | A(A) | 8.3(9.1) | NB(SB) | 8.0(8.7) | A(A) | - |
| Flannery Dr/Springland Dr (U) | A(A) | 9.0(9.3) | EB(SB) | 8.4(9.1) | A(A) | - |
| Brookfield Rd/Flannery Dr (R) | A(A) | 5.9(5.9) | NB(NB) | 3.9(4.0) | A(A) | - |
| Note: Analysis of signalized intersections assumes a PHF of 1.0 and a saturation flow rate of 1800 veh/h/lane.<br>(S) – Signalized intersection, critical movement based on max v/c<br>(U) – Unsignalized intersection, critical movement based on highest average delay<br>(R) – Roundabout intersection, critical movement based on highest average delay | | | | | | |

As shown in Table 16, study area intersections are projected to operate similar or better than existing conditions due to increasing the PHF to 1.0.

## Total Future Background 2029

Table 17 below summarizes the Synchro traffic operations at study area intersections, based on future background 2029 traffic volumes in Figure 16.

Table 17: Total Future Background 2029 Intersection Performance

| Intersection | Weekday AM Peak (PM Peak) | | | | | |
|---|---|---|---|---|---|---|
| | Critical Movement | | | Intersection 'As a Whole' | | |
| | LOS | max. v/c or avg. delay (s) | Movement | Delay (s) | LOS | v/c |
| Riverside Dr/Hog's Back Rd/Brookfield Rd (S) | F(F) | 1.11(1.40) | NBT(WBL) | 68.4(56.7) | E(E) | 0.99(0.91) |
| Riverside Dr/Ridgewood Ave (S) | E(B) | 0.92(0.68) | NBT(SBT) | 17.6(9.1) | D(B) | 0.89(0.67) |
| Springland Dr/Ridgewood Ave (U) | A(A) | 8.3(9.1) | NB(SB) | 8.0(8.7) | A(A) | - |
| Flannery Dr/Springland Dr (U) | A(A) | 9.0(9.3) | EB(SB) | 8.4(9.1) | A(A) | - |
| Brookfield Rd/Flannery Dr (R) | A(A) | 5.9(5.9) | NB(NB) | 3.9(4.0) | A(A) | - |
| Note: Analysis of signalized intersections assumes a PHF of 1.0 and a saturation flow rate of 1800 veh/h/lane.<br>(S) – Signalized intersection, critical movement based on max v/c<br>(U) – Unsignalized intersection, critical movement based on highest average delay<br>(R) – Roundabout intersection, critical movement based on highest average delay | | | | | | |

As indicated by Table 17, traffic operations are anticipated to be similar to the total future background 2024 traffic operations, with slightly higher delays and v/c ratios.

## Total Projected 2024

Based on total projected 2024 traffic volumes in Figure 17, study area intersections were analyzed using Synchro, with results summarized in Table 18 below.

Table 18: Total Projected 2024 Intersection Performance

| Intersection | Weekday AM Peak (PM Peak) | | | | | |
|---|---|---|---|---|---|---|
| | Critical Movement | | | Intersection 'As a Whole' | | |
| | LOS | max. v/c or avg. delay (s) | Movement | Delay (s) | LOS | v/c |
| Riverside Dr/Hog's Back Rd/Brookfield Rd (S) | E(E) | 0.99(0.99) | NBT(WBL) | 46.4(44.2) | E(D) | 0.91(0.89) |
| Riverside Dr/Ridgewood Ave (S) | E(B) | 0.93(0.66) | NBT(SBT) | 21.3(10.4) | D(B) | 0.90(0.65) |
| Springland Dr/Ridgewood Ave (U) | A(A) | 8.4(9.3) | NB(SB) | 8.1(8.8) | A(A) | - |
| Flannery Dr/Springland Dr (U) | A(A) | 9.2(9.5) | EB(SB) | 8.5(9.2) | A(A) | - |
| Ridgewood Ave/Site Access (U) | A(A) | 9.5(9.3) | SB(SB) | 2.3(2.4) | A(A) | - |
| Brookfield Rd/Flannery Dr (R) | A(A) | 5.8(5.8) | NB(NB) | 4.0(4.1) | A(A) | - |
| Note: Analysis of signalized intersections assumes a PHF of 1.0 and a saturation flow rate of 1800 veh/h/lane.<br>(S) – Signalized intersection, critical movement based on max v/c<br>(U) – Unsignalized intersection, critical movement based on highest average delay<br>(R) – Roundabout intersection, critical movement based on highest average delay | | | | | | |

Note that the intersection of Riverside/Brookfield was optimized for phase splits in Synchro, resulting in improved traffic operations during both peak hours; 'as a whole' the intersection is projected to operate acceptably given that Riverside Dr is a major arterial intersection, with critical movements operating near capacity during both peak hours.

The intersection of Riverside/Ridgewood 'as a whole' operates near capacity in the morning peak hour. Unsignalized intersections, including the roundabout intersection and the proposed site access, operate at a LOS 'A' during both peak hours.

## Total Projected 2029

Based on total projected 2029 traffic volumes in Figure 18, study are intersections were analyzed using Synchro, with results summarized in Table 19 below.

Table 19: Total Projected 2029 Intersection Performance

| Intersection | Weekday AM Peak (PM Peak) | | | | | |
|---|---|---|---|---|---|---|
| | Critical Movement | | | Intersection 'As a Whole' | | |
| | LOS | max. v/c or avg. delay (s) | Movement | Delay (s) | LOS | v/c |
| Riverside Dr/Hog's Back Rd/Brookfield Rd (S) | F(F) | 1.08(1.04) | NBT(WBL) | 62.2(50.0) | E(E) | 0.97(0.95) |
| Riverside Dr/Ridgewood Ave (S) | E(B) | 0.97(0.69) | NBT(SBT) | 23.2(10.8) | E(B) | 0.94(0.68) |
| Springland Dr/Ridgewood Ave (U) | A(A) | 8.4(9.3) | NB(SB) | 8.1(8.8) | A(A) | - |
| Flannery Dr/Springland Dr (U) | A(A) | 9.2(9.5) | EB(SB) | 8.5(9.2) | A(A) | - |
| Ridgewood Ave/Site Access (U) | A(A) | 9.5(9.3) | SB(SB) | 2.3(2.4) | A(A) | - |
| Brookfield Rd/Flannery Dr (R) | A(A) | 5.8(5.8) | NB(NB) | 4.0(4.1) | A(A) | - |
| Note: Analysis of signalized intersections assumes a PHF of 1.0 and a saturation flow rate of 1800 veh/h/lane.<br>(S) – Signalized intersection, critical movement based on max v/c<br>(U) – Unsignalized intersection, critical movement based on highest average delay<br>(R) – Roundabout intersection, critical movement based on highest average delay | | | | | | |

As indicated by Table 19, traffic operations are anticipated to be similar to the total future projected 2024 traffic operations, with only slightly higher delays and v/c ratios.

The intersection of Riverside/Brookfield was optimized in Synchro with regards to phase splits during both peak hours; 'as a whole', the intersection operates near capacity. The intersection of Riverside/Ridgewood operate 'as a whole' near capacity during the morning peak hour. All unsignalized and roundabout intersections operate at LOS 'A' during both peak hours.

Generally, operations at the two Riverside Drive intersections are expected to only approach congested conditions in the peak hour periods, but still operate within acceptable limits for major arterial intersections. If desired, operations can be improved to a LOS 'D' at each of the intersection with the following modifications:

- At Riverside/Brookfield: Add a left-turn lane to the southbound and westbound approaches for double left-turn lanes.
- At Riverside/Ridgewood: adjust the timing of the southbound left-turn lane to increase the available green time, but would adversely impact cycle length timing priority.

# 5. Findings, Conclusions and Recommendations

Based on the results summarized herein, the following transportation related conclusions are offered:

### Proposed Development

- The proposed development will be located at the combined addresses of 729 & 753 Ridgewood Avenue. The site is currently occupied by a strip mall, which will be replaced by the proposed development.
- The development will consist of five apartment buildings that are 4 to 15 storeys and consist of 387 residential units and 856 $m^2$ (9.213 $ft^2$) of commercial space, which will all be constructed in a single phase by 2024.
- Access will be provided via a driveway on the north side of Ridgewood Ave. Stop control is anticipated to be sufficient for future traffic exiting the site.
- A total of 572 vehicle parking spaces and 198 bicycle parking spaces are proposed, which meets the requirements of City of Ottawa Parking Provisions.
- At full buildout in 2024, the development is expected approximately 154 and 150 person trips during the morning and afternoon peak hours respectively.
- Approximately 90 new vehicular trips and 30 new transit trips are expected to be generated by the proposed development in both the morning and afternoon peak hours. Approximately 13 new bike and walk trips were expected in both the morning and afternoon peak hours.

### Existing and Background Conditions

- In existing conditions, the following traffic operations are noted:
    - Riverside/Brookfield 'as a whole' operates near capacity (at a LOS 'E'), but acceptably for an significant urban arterial intersection in the morning peak hour, with poorly operating movements (the NBT and WBL) in the morning and afternoon peak hours respectively.
    - The Riverside/Ridgewood intersection operates acceptably 'as a whole' (at a LOS 'D') in the morning peak hour.
    - The remaining intersections all operate at a LOS 'A' during both peak hours.
- A background growth rate of 1% per year was applied to Riverside Dr, Hog's Back Rd, and Brookfield Rd for future horizon years 2024 and 2029.
- Other proposed developments within the area were also included in the future traffic analysis, including: 740 Springland (Norberry Residences), 770 Brookfield, and 3071 Riverside (Canoe Bay).
- As required by the TIA Guidelines, the PHF in future conditions is increased to 1.0, which results in improved or similar traffic operations for total future background 2024 and 2029 as compared to existing conditions.

### Projected Conditions

- Ridgewood Ave and Springland Dr are appropriately classified as collector roadways. Flannery Dr between Ridgewood Ave and Brookfield Rd experiences higher vehicular traffic volumes that suggests a major collector classification may be appropriate. However, the intersection operational analysis indicates there are no traffic concerns along the corridor in the future and the design does include characteristics found in major collectors, e.g. parking restrictions and no direct residential frontage.
- For total projected 2024 conditions, the intersection of Riverside/Brookfield has poorly operating individual movements, but 'as a whole' operates acceptably (at a LOS 'E') during both peak hours. All other intersections operate acceptably, similar to existing conditions.
- For total projected 2029 conditions, higher delays and v/c ratios are experienced compared to total projected 2024 conditions. The intersection of Riverside/Brookfield continues to operate acceptably overall. Similarly, the intersection of Riverside/Ridgewood 'as a whole' operates closer to capacity (at a LOS 'E), but acceptably in the morning peak hour. All other intersections operate similar to existing conditions.

In summary, the adjacent road network is expected to accommodate anticipated development traffic in the future. Therefore, the proposed development is recommended to proceed from a transportation perspective.

# Appendix A

SCREENING FORM

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

City of Ottawa 2017 TIA Guidelines

# TIA Screening Form

| | |
|---|---|
| Date | 22-Mar-21 |
| Project | 729-753 Ridgewood Ave |
| Project Number | 477549 - 01000 |

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

| Module 1.1 - Description of Proposed Development | |
|---|---|
| Municipal Address | 729-753 Ridgewood Avenue, Ottawa, ON |
| Description of location | North side of Ridgewood Ave |
| Land Use | Five residential buildings and commercials space |
| Development Size | 390 apartment units and 835 m^2 commercial |
| Number of Accesses and Locations | Single access proposed along north side of Ridgewood Ave |
| Development Phasing | Single Phase |
| Buildout Year | 2024 |
| Sketch Plan / Site Plan | See attached |

| Module 1.2 - Trip Generation Trigger | | |
|---|---|---|
| Land Use Type | Townhomes or Apartments | |
| Development Size | 390 | Units |
| Trip Generation Trigger Met? | Yes | |

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

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

# Appendix B

TRANSIT ROUTE MAPS

# 90

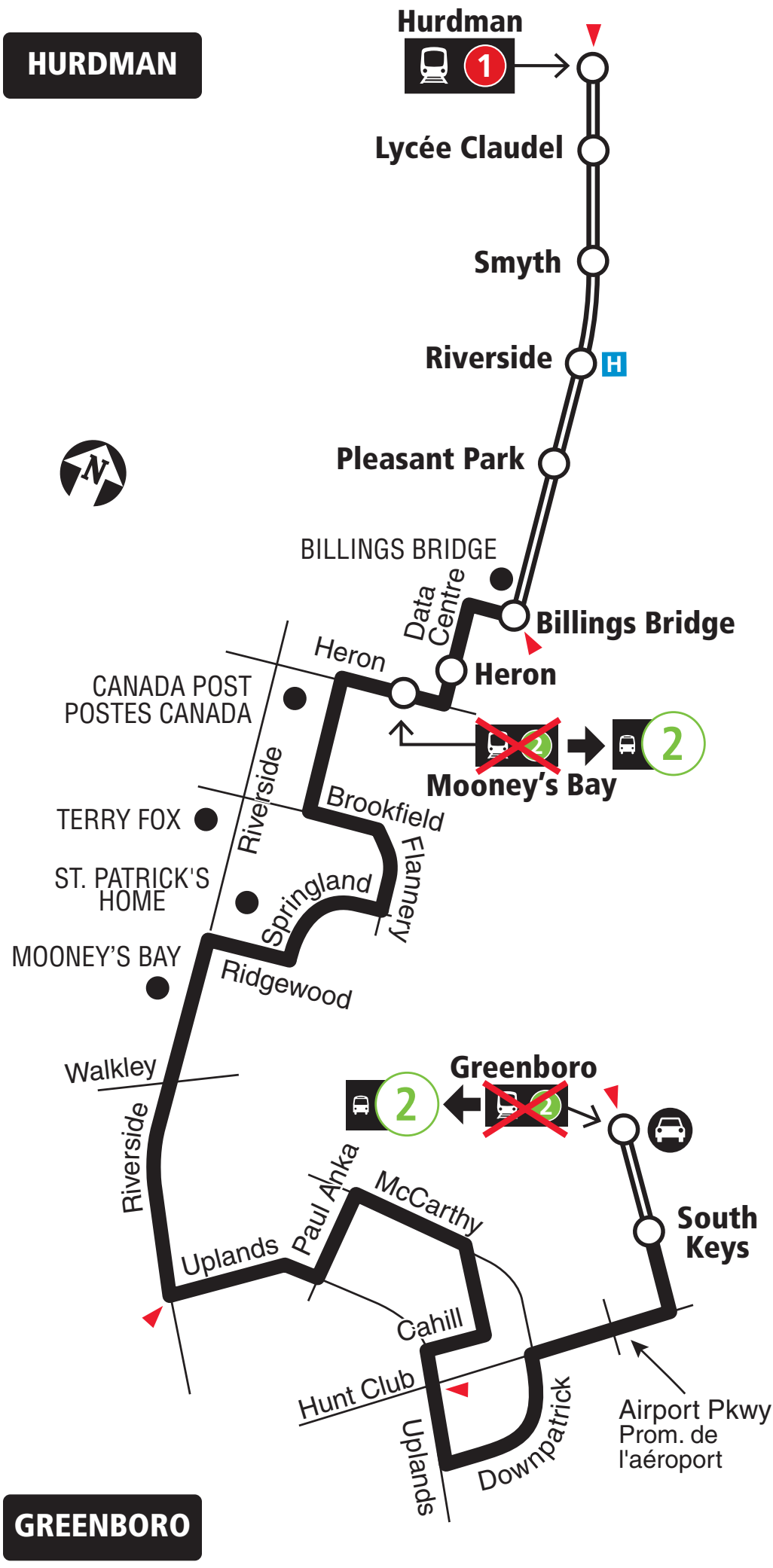
## Fréquent

# GREENBORO
# HURDMAN

## 7 days a week / 7 jours par semaine

All day service

Service toute la journée




Transitway & Station

Park & Ride / Parc-o-bus

Timepoint / Heures de passage

2020.04

**Schedule / Horaire.....613-560-1000**

**Text / Texto .....560560**

*plus* your four digit bus stop number / *plus* votre numéro d'arrêt à quatre chiffres

Customer Service
Service à la clientèle ..... **613-741-4390**

Lost and Found / Objets perdus..... **613-563-4011**

Security / Sécurité ..... **613-741-2478**

**Effective May 3, 2020**

**En vigueur 3 mai 2020**

OC Transpo

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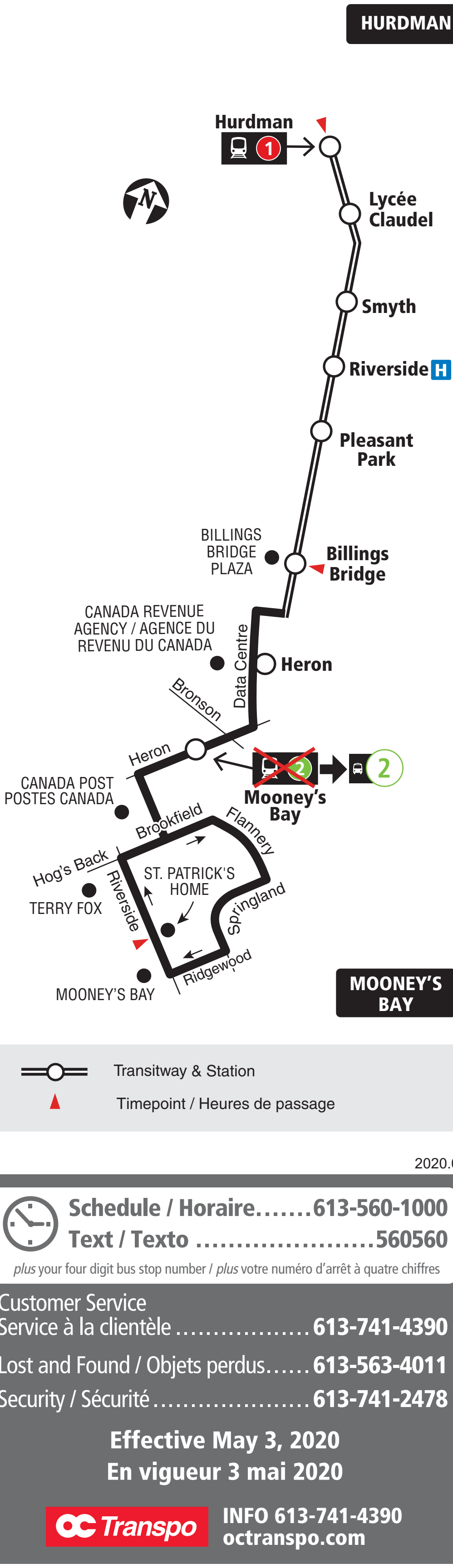
**octranspo.com**

# 190 MOONEY'S BAY / HURDMAN

*Local*

## 7 days a week / 7 jours par semaine

Selected trips only
Trajets sélectionnés seulement




2020.04

**Schedule / Horaire.....613-560-1000**
**Text / Texto .....560560**

*plus* your four digit bus stop number / *plus* votre numéro d'arrêt à quatre chiffres

Customer Service
Service à la clientèle ..... **613-741-4390**

Lost and Found / Objets perdus..... **613-563-4011**

Security / Sécurité ..... **613-741-2478**

**Effective May 3, 2020**
**En vigueur 3 mai 2020**

OC Transpo

**INFO 613-741-4390**
**octranspo.com**

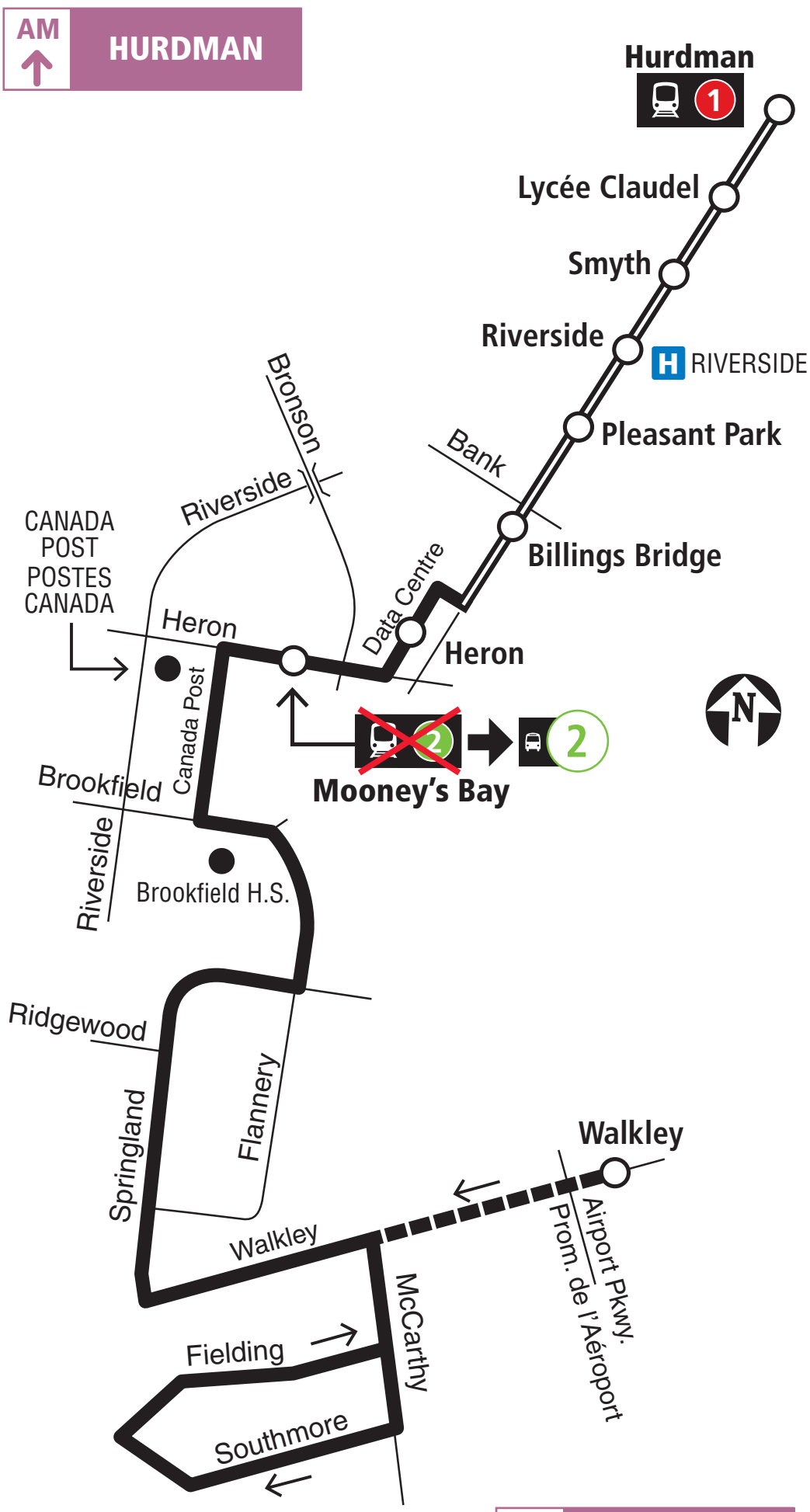
# 290 Connexion

# HURDMAN
# McCARTHY

## Monday to Friday / Lundi au vendredi

Peak periods only
Périodes de pointe seulement

**AM** ↑ **HURDMAN**




**PM** ↓ **McCARTHY**

Transitway & Station

AM trips only / Trajets du matin seulement

2021.03

**Schedule / Horaire.....613-560-1000**
**Text / Texto .....560560**

*plus* your four digit bus stop number / *plus* votre numéro d'arrêt à quatre chiffres

Customer Relations
Service à la clientèle ..... **613-741-4390**

Lost and Found / Objets perdus..... **613-563-4011**

Security / Sécurité ..... **613-741-2478**

**Effective March 8, 2021**
**En vigueur 8 mars 2021**

OC Transpo

**INFO 613-741-4390**
**octranspo.com**

# Appendix C

TRAFFIC DATA

# Transportation Services - Traffic Services

W.O. 36342

## Turning Movement Count - 15 Minute Summary Report

# AIRPORT PKWY/BROOKFIELD RD @ FLANNERY DR/AIRPORT PKWY RAMPS 52A/53

**Survey Date:** Thursday, September 22, 2016

**Total Observed U-Turns**

Northbound: 1 Southbound: 0

Eastbound: 34 Westbound: 0

| | | Northbound | | | | Southbound | | | | | Eastbound | | | | Westbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time Period | | LT | ST | RT | N TOT | LT | ST | RT | S TOT | STR TOT | LT | ST | RT | E TOT | LT | ST | RT | W TOT | STR TOT | Grand Total |
| 07:00 | 07:15 | 6 | 0 | 20 | **26** | 0 | 6 | 38 | **44** | **70** | 0 | 69 | 3 | **72** | 3 | 40 | 0 | **43** | **115** | **185** |
| 07:15 | 07:30 | 8 | 0 | 40 | **48** | 0 | 4 | 47 | **51** | **99** | 0 | 81 | 4 | **87** | 0 | 44 | 0 | **44** | **131** | **230** |
| 07:30 | 07:45 | 15 | 1 | 49 | **65** | 0 | 3 | 36 | **39** | **104** | 0 | 110 | 10 | **120** | 1 | 55 | 0 | **56** | **176** | **280** |
| 07:45 | 08:00 | 14 | 0 | 39 | **53** | 1 | 8 | 41 | **50** | **103** | 0 | 118 | 4 | **122** | 0 | 52 | 0 | **52** | **174** | **277** |
| 08:00 | 08:15 | 18 | 0 | 63 | **81** | 0 | 8 | 36 | **44** | **125** | 1 | 92 | 17 | **111** | 0 | 57 | 0 | **57** | **168** | **293** |
| 08:15 | 08:30 | 16 | 0 | 42 | **58** | 0 | 10 | 43 | **53** | **111** | 1 | 80 | 8 | **91** | 1 | 60 | 0 | **61** | **152** | **263** |
| 08:30 | 08:45 | 24 | 0 | 44 | **68** | 1 | 3 | 51 | **55** | **123** | 0 | 91 | 14 | **105** | 3 | 45 | 0 | **48** | **153** | **276** |
| 08:45 | 09:00 | 27 | 0 | 35 | **62** | 2 | 10 | 46 | **58** | **120** | 0 | 98 | 28 | **127** | 0 | 62 | 0 | **62** | **189** | **309** |
| 09:00 | 09:15 | 13 | 0 | 23 | **36** | 0 | 8 | 44 | **52** | **88** | 0 | 78 | 16 | **95** | 6 | 37 | 0 | **43** | **138** | **226** |
| 09:15 | 09:30 | 5 | 0 | 19 | **24** | 0 | 7 | 32 | **39** | **63** | 1 | 71 | 12 | **84** | 3 | 30 | 0 | **33** | **117** | **180** |
| 09:30 | 09:45 | 12 | 0 | 24 | **36** | 0 | 6 | 24 | **30** | **66** | 2 | 60 | 8 | **72** | 2 | 22 | 0 | **24** | **96** | **162** |
| 09:45 | 10:00 | 16 | 0 | 22 | **38** | 2 | 6 | 17 | **25** | **63** | 0 | 32 | 6 | **39** | 3 | 19 | 0 | **22** | **61** | **124** |
| 11:30 | 11:45 | 12 | 0 | 16 | **29** | 3 | 12 | 18 | **33** | **62** | 0 | 72 | 12 | **85** | 1 | 19 | 0 | **20** | **105** | **167** |
| 11:45 | 12:00 | 6 | 0 | 18 | **24** | 0 | 11 | 20 | **31** | **55** | 1 | 69 | 11 | **84** | 3 | 16 | 0 | **19** | **103** | **158** |
| 12:00 | 12:15 | 10 | 0 | 21 | **31** | 1 | 8 | 16 | **25** | **56** | 0 | 66 | 18 | **84** | 3 | 18 | 0 | **21** | **105** | **161** |
| 12:15 | 12:30 | 9 | 0 | 14 | **23** | 0 | 16 | 13 | **29** | **52** | 0 | 79 | 17 | **98** | 1 | 22 | 0 | **23** | **121** | **173** |
| 12:30 | 12:45 | 12 | 1 | 21 | **34** | 0 | 17 | 23 | **40** | **74** | 0 | 56 | 12 | **68** | 3 | 20 | 0 | **23** | **91** | **165** |
| 12:45 | 13:00 | 6 | 0 | 13 | **19** | 0 | 10 | 19 | **29** | **48** | 0 | 48 | 13 | **62** | 2 | 23 | 0 | **25** | **87** | **135** |
| 13:00 | 13:15 | 11 | 0 | 15 | **26** | 3 | 12 | 23 | **38** | **64** | 0 | 51 | 10 | **61** | 1 | 27 | 0 | **28** | **89** | **153** |
| 13:15 | 13:30 | 5 | 0 | 20 | **25** | 3 | 12 | 12 | **27** | **52** | 1 | 48 | 16 | **67** | 0 | 29 | 0 | **29** | **96** | **148** |
| 15:00 | 15:15 | 14 | 0 | 12 | **26** | 3 | 18 | 30 | **51** | **77** | 0 | 125 | 34 | **160** | 6 | 28 | 0 | **34** | **194** | **271** |
| 15:15 | 15:30 | 13 | 1 | 10 | **24** | 2 | 20 | 47 | **69** | **93** | 0 | 105 | 24 | **129** | 3 | 31 | 0 | **34** | **163** | **256** |
| 15:30 | 15:45 | 13 | 1 | 21 | **35** | 2 | 18 | 53 | **73** | **108** | 0 | 120 | 25 | **147** | 8 | 38 | 0 | **46** | **193** | **301** |
| 15:45 | 16:00 | 10 | 0 | 13 | **23** | 0 | 34 | 53 | **87** | **110** | 1 | 122 | 27 | **152** | 2 | 30 | 0 | **32** | **184** | **294** |
| 16:00 | 16:15 | 13 | 0 | 12 | **25** | 5 | 33 | 69 | **107** | **132** | 0 | 136 | 31 | **167** | 0 | 24 | 0 | **24** | **191** | **323** |
| 16:15 | 16:30 | 4 | 0 | 18 | **22** | 2 | 62 | 70 | **134** | **156** | 1 | 109 | 27 | **140** | 3 | 31 | 0 | **34** | **174** | **330** |
| 16:30 | 16:45 | 8 | 0 | 19 | **27** | 3 | 68 | 62 | **133** | **160** | 2 | 101 | 46 | **149** | 7 | 24 | 0 | **31** | **180** | **340** |
| 16:45 | 17:00 | 8 | 0 | 17 | **25** | 0 | 73 | 69 | **142** | **167** | 0 | 93 | 38 | **134** | 6 | 25 | 0 | **31** | **165** | **332** |
| 17:00 | 17:15 | 12 | 0 | 15 | **27** | 0 | 63 | 48 | **111** | **138** | 0 | 99 | 24 | **124** | 3 | 26 | 0 | **29** | **153** | **291** |
| 17:15 | 17:30 | 13 | 0 | 12 | **25** | 0 | 60 | 47 | **107** | **132** | 1 | 101 | 29 | **132** | 6 | 34 | 0 | **40** | **172** | **304** |
| 17:30 | 17:45 | 6 | 0 | 25 | **31** | 2 | 55 | 52 | **109** | **140** | 0 | 109 | 23 | **132** | 6 | 24 | 0 | **30** | **162** | **302** |
| 17:45 | 18:00 | 7 | 0 | 26 | **33** | 0 | 33 | 47 | **80** | **113** | 1 | 87 | 26 | **116** | 3 | 28 | 0 | **31** | **147** | **260** |
| TOTAL: | | 366 | 4 | 758 | **1129** | 35 | 714 | 1246 | **1995** | **3124** | 13 | 2776 | 593 | **3416** | 89 | 1040 | 0 | **1129** | **4545** | **7669** |

| | Northbound | | | | Southbound | | | | | Eastbound | | | | Westbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time Period | LT | ST | RT | **N TOT** | LT | ST | RT | **S TOT** | **STR TOT** | LT | ST | RT | **E TOT** | LT | ST | RT | **W TOT** | **STR TOT** | **Grand Total** |

Note: U-Turns are included in Totals.

**Comment:**

# Transportation Services - Traffic Services

## Turning Movement Count - Cyclist Volume Report

**Work Order**
**36342**

## AIRPORT PKWY/BROOKFIELD RD @ FLANNERY DR/AIRPORT PKWY RAMPS 52A/53

**Count Date:** Thursday, September 22, 2016 **Start Time:** 07:00

| Time Period | Northbound | Southbound | **Street Total** | Eastbound | Westbound | **Street Total** | **Grand Total** |
|---|---|---|---|---|---|---|---|
| 07:00 08:00 | 11 | 1 | **12** | 1 | 6 | **7** | **19** |
| 08:00 09:00 | 14 | 1 | **15** | 4 | 4 | **8** | **23** |
| 09:00 10:00 | 1 | 0 | **1** | 0 | 2 | **2** | **3** |
| 11:30 12:30 | 3 | 4 | **7** | 2 | 0 | **2** | **9** |
| 12:30 13:30 | 1 | 0 | **1** | 4 | 2 | **6** | **7** |
| 15:00 16:00 | 0 | 3 | **3** | 4 | 2 | **6** | **9** |
| 16:00 17:00 | 3 | 4 | **7** | 13 | 1 | **14** | **21** |
| 17:00 18:00 | 2 | 2 | **4** | 12 | 2 | **14** | **18** |
| Total ..... | 35 | 15 | **50** | 40 | 19 | **59** | **109** |

**Comment:**

Note: These volumes consists of bicycles only (no mopeds or motorcycles) and ARE NOT included in the Turning Movement Count Summary.

# Transportation Services - Traffic Services

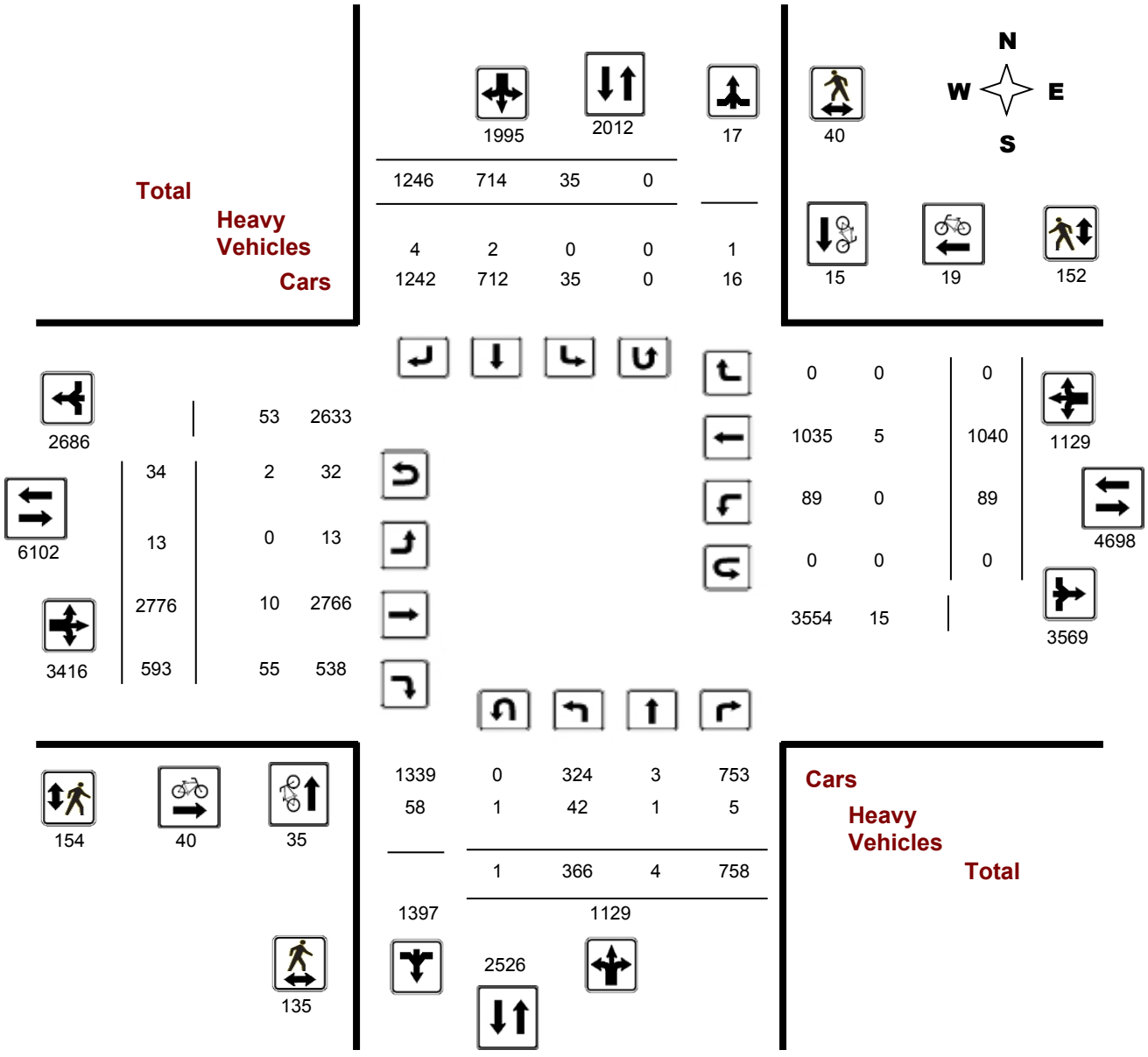
## Turning Movement Count - Full Study Diagram

## AIRPORT PKWY/BROOKFIELD RD @ FLANNERY DR/AIRPORT PKWY RAMPS 52A/53

**Survey Date:** Thursday, September 22, 2016

**WO#:** 36342

**Device:** Miovision




**Comments**

# Transportation Services - Traffic Services

**W.O.** 36342

## Turning Movement Count - Heavy Vehicle Report

# AIRPORT PKWY/BROOKFIELD RD @ FLANNERY DR/AIRPORT PKWY RAMPS 52A/53

**Survey Date:** Thursday, September 22, 2016

| | | Northbound | | | | Southbound | | | | | Eastbound | | | | Westbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time Period | | LT | ST | RT | N TOT | LT | ST | RT | S TOT | STR TOT | LT | ST | RT | E TOT | LT | ST | RT | W TOT | STR TOT | Grand Total |
| 07:00 | 08:00 | 9 | 0 | 0 | **9** | 0 | 0 | 0 | **0** | **9** | 0 | 1 | 4 | **5** | 0 | 0 | 0 | **0** | **5** | **14** |
| 08:00 | 09:00 | 6 | 0 | 1 | **7** | 0 | 0 | 1 | **1** | **8** | 0 | 1 | 6 | **7** | 0 | 2 | 0 | **2** | **9** | **17** |
| 09:00 | 10:00 | 7 | 0 | 0 | **7** | 0 | 0 | 1 | **1** | **8** | 0 | 1 | 7 | **8** | 0 | 0 | 0 | **0** | **8** | **16** |
| 11:30 | 12:30 | 4 | 0 | 0 | **5** | 0 | 1 | 0 | **1** | **6** | 0 | 0 | 5 | **6** | 0 | 1 | 0 | **1** | **7** | **13** |
| 12:30 | 13:30 | 4 | 0 | 1 | **5** | 0 | 1 | 0 | **1** | **6** | 0 | 2 | 4 | **6** | 0 | 0 | 0 | **0** | **6** | **12** |
| 15:00 | 16:00 | 5 | 1 | 1 | **7** | 0 | 0 | 1 | **1** | **8** | 0 | 3 | 12 | **16** | 0 | 2 | 0 | **2** | **18** | **26** |
| 16:00 | 17:00 | 4 | 0 | 1 | **5** | 0 | 0 | 0 | **0** | **5** | 0 | 1 | 9 | **10** | 0 | 0 | 0 | **0** | **10** | **15** |
| 17:00 | 18:00 | 3 | 0 | 1 | **4** | 0 | 0 | 1 | **1** | **5** | 0 | 1 | 8 | **9** | 0 | 0 | 0 | **0** | **9** | **14** |
| **Sub Total** | | 42 | 1 | 5 | **49** | 0 | 2 | 4 | **6** | **55** | 0 | 10 | 55 | **67** | 0 | 5 | 0 | **5** | **72** | **127** |
| **U-Turns (Heavy Vehicles)** | | | | | **1** | | | | **0** | **1** | | | | **2** | | | | **0** | **2** | **3** |
| **Total** | | 42 | 1 | 5 | **0** | 0 | 2 | 4 | **6** | **56** | 0 | 10 | 55 | **69** | 0 | 5 | 0 | **5** | **74** | **130** |

Heavy Vehicles include Buses, Single-Unit Trucks and Articulated Trucks. Further, they ARE included in the Turning Movement Count Summary.

# Transportation Services - Traffic Services

**Work Order**
**36342**

## Turning Movement Count - Pedestrian Volume Report

### AIRPORT PKWY/BROOKFIELD RD @ FLANNERY DR/AIRPORT PKWY RAMPS 52A/53

**Count Date:** Thursday, September 22, 2016 **Start Time:** 07:00

| Time Period | NB Approach (E or W Crossing) | SB Approach (E or W Crossing) | Total | EB Approach (N or S Crossing) | WB Approach (N or S Crossing) | Total | Grand Total |
|---|---|---|---|---|---|---|---|
| 07:00 07:15 | 1 | 0 | **1** | 0 | 0 | **0** | **1** |
| 07:15 07:30 | 5 | 0 | **5** | 3 | 5 | **8** | **13** |
| 07:30 07:45 | 2 | 1 | **3** | 2 | 2 | **4** | **7** |
| 07:45 08:00 | 1 | 0 | **1** | 2 | 4 | **6** | **7** |
| 07:00 08:00 | 9 | 1 | **10** | 7 | 11 | **18** | **28** |
| 08:00 08:15 | 1 | 2 | **3** | 2 | 6 | **8** | **11** |
| 08:15 08:30 | 21 | 1 | **22** | 7 | 4 | **11** | **33** |
| 08:30 08:45 | 65 | 1 | **66** | 13 | 6 | **19** | **85** |
| 08:45 09:00 | 2 | 4 | **6** | 29 | 0 | **29** | **35** |
| 08:00 09:00 | 89 | 8 | **97** | 51 | 16 | **67** | **164** |
| 09:00 09:15 | 7 | 4 | **11** | 5 | 3 | **8** | **19** |
| 09:15 09:30 | 0 | 0 | **0** | 0 | 0 | **0** | **0** |
| 09:30 09:45 | 0 | 3 | **3** | 0 | 7 | **7** | **10** |
| 09:45 10:00 | 0 | 2 | **2** | 1 | 5 | **6** | **8** |
| 09:00 10:00 | 7 | 9 | **16** | 6 | 15 | **21** | **37** |
| 11:30 11:45 | 2 | 1 | **3** | 1 | 8 | **9** | **12** |
| 11:45 12:00 | 0 | 0 | **0** | 2 | 4 | **6** | **6** |
| 12:00 12:15 | 0 | 2 | **2** | 5 | 1 | **6** | **8** |
| 12:15 12:30 | 0 | 3 | **3** | 7 | 5 | **12** | **15** |
| 11:30 12:30 | 2 | 6 | **8** | 15 | 18 | **33** | **41** |
| 12:30 12:45 | 0 | 2 | **2** | 6 | 4 | **10** | **12** |
| 12:45 13:00 | 0 | 0 | **0** | 2 | 2 | **4** | **4** |
| 13:00 13:15 | 0 | 0 | **0** | 2 | 4 | **6** | **6** |
| 13:15 13:30 | 0 | 0 | **0** | 1 | 4 | **5** | **5** |
| 12:30 13:30 | 0 | 2 | **2** | 11 | 14 | **25** | **27** |
| 15:00 15:15 | 6 | 4 | **10** | 25 | 2 | **27** | **37** |
| 15:15 15:30 | 5 | 4 | **9** | 20 | 6 | **26** | **35** |
| 15:30 15:45 | 4 | 1 | **5** | 4 | 8 | **12** | **17** |
| 15:45 16:00 | 0 | 1 | **1** | 0 | 4 | **4** | **5** |
| 15:00 16:00 | 15 | 10 | **25** | 49 | 20 | **69** | **94** |
| 16:00 16:15 | 0 | 1 | **1** | 1 | 3 | **4** | **5** |
| 16:15 16:30 | 1 | 0 | **1** | 3 | 4 | **7** | **8** |
| 16:30 16:45 | 5 | 0 | **5** | 0 | 11 | **11** | **16** |
| 16:45 17:00 | 2 | 0 | **2** | 3 | 6 | **9** | **11** |
| 16:00 17:00 | 8 | 1 | **9** | 7 | 24 | **31** | **40** |
| 17:00 17:15 | 2 | 2 | **4** | 5 | 5 | **10** | **14** |
| 17:15 17:30 | 1 | 1 | **2** | 0 | 9 | **9** | **11** |
| 17:30 17:45 | 2 | 0 | **2** | 2 | 12 | **14** | **16** |
| 17:45 18:00 | 0 | 0 | **0** | 1 | 8 | **9** | **9** |
| 17:00 18:00 | 5 | 3 | **8** | 8 | 34 | **42** | **50** |
| Total ..... | 135 | 40 | **175** | 154 | 152 | **306** | **481** |

**Comment:**

# Transportation Services - Traffic Services

**Work Order**
36342

## Turning Movement Count - Full Study Summary Report

# AIRPORT PKWY/BROOKFIELD RD @ FLANNERY DR/AIRPORT PKWY RAMPS 52A/53

**Survey Date:** Thursday, September 22, 2016

**Total Observed U-Turns**

Northbound: 1 Southbound: 0
Eastbound: 34 Westbound: 0

**AADT Factor**
1.00

### Full Study

| | Northbound | | | | Southbound | | | | | Eastbound | | | | Westbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Period | LT | ST | RT | **NB TOT** | LT | ST | RT | **SB TOT** | **STR TOT** | LT | ST | RT | **EB TOT** | LT | ST | RT | **WB TOT** | **STR TOT** | **Grand Total** |
| 07:00 08:00 | 43 | 1 | 148 | **192** | 1 | 21 | 162 | **184** | **376** | 0 | 378 | 21 | **399** | 4 | 191 | 0 | **195** | **594** | **970** |
| 08:00 09:00 | 85 | 0 | 184 | **269** | 3 | 31 | 176 | **210** | **479** | 2 | 361 | 67 | **430** | 4 | 224 | 0 | **228** | **658** | **1137** |
| 09:00 10:00 | 46 | 0 | 88 | **134** | 2 | 27 | 117 | **146** | **280** | 3 | 241 | 42 | **286** | 14 | 108 | 0 | **122** | **408** | **688** |
| 11:30 12:30 | 37 | 0 | 69 | **106** | 4 | 47 | 67 | **118** | **224** | 1 | 286 | 58 | **345** | 8 | 75 | 0 | **83** | **428** | **652** |
| 12:30 13:30 | 34 | 1 | 69 | **104** | 6 | 51 | 77 | **134** | **238** | 1 | 203 | 51 | **255** | 6 | 99 | 0 | **105** | **360** | **598** |
| 15:00 16:00 | 50 | 2 | 56 | **108** | 7 | 90 | 183 | **280** | **388** | 1 | 472 | 110 | **583** | 19 | 127 | 0 | **146** | **729** | **1117** |
| 16:00 17:00 | 33 | 0 | 66 | **99** | 10 | 236 | 270 | **516** | **615** | 3 | 439 | 142 | **584** | 16 | 104 | 0 | **120** | **704** | **1319** |
| 17:00 18:00 | 38 | 0 | 78 | **116** | 2 | 211 | 194 | **407** | **523** | 2 | 396 | 102 | **500** | 18 | 112 | 0 | **130** | **630** | **1153** |
| **Sub Total** | 366 | 4 | 758 | **1128** | 35 | 714 | 1246 | **1995** | **3123** | 13 | 2776 | 593 | **3382** | 89 | 1040 | 0 | **1129** | **4511** | **7634** |
| **U Turns** | | | | **1** | | | | **0** | **1** | | | | **34** | | | | **0** | **34** | **35** |
| **Total** | 366 | 4 | 758 | **1129** | 35 | 714 | 1246 | **1995** | **3124** | 13 | 2776 | 593 | **3416** | 89 | 1040 | 0 | **1129** | **4545** | **7669** |
| **EQ 12Hr** | 509 | 6 | 1054 | **1569** | 49 | 992 | 1732 | **2773** | **4342** | 18 | 3859 | 824 | **4748** | 124 | 1446 | 0 | **1569** | **6317** | **10659** |
| Note: These values are calculated by multiplying the totals by the appropriate expansion factor. | | | | | | | | | | | | | **1.39** | | | | | | |
| **AVG 12Hr** | 509 | 6 | 1054 | **1569** | 49 | 992 | 1732 | **2773** | **4342** | 18 | 3859 | 824 | **4748** | 124 | 1446 | 0 | **1569** | **6317** | **10659** |
| Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor. | | | | | | | | | | | | | **1.00** | | | | | | |
| **AVG 24Hr** | 666 | 7 | 1380 | **2056** | 64 | 1300 | 2269 | **3633** | **5689** | 24 | 5055 | 1080 | **6220** | 162 | 1894 | 0 | **2056** | **8276** | **13965** |
| Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor. | | | | | | | | | | | | | **1.31** | | | | | | |

**Comments:**

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

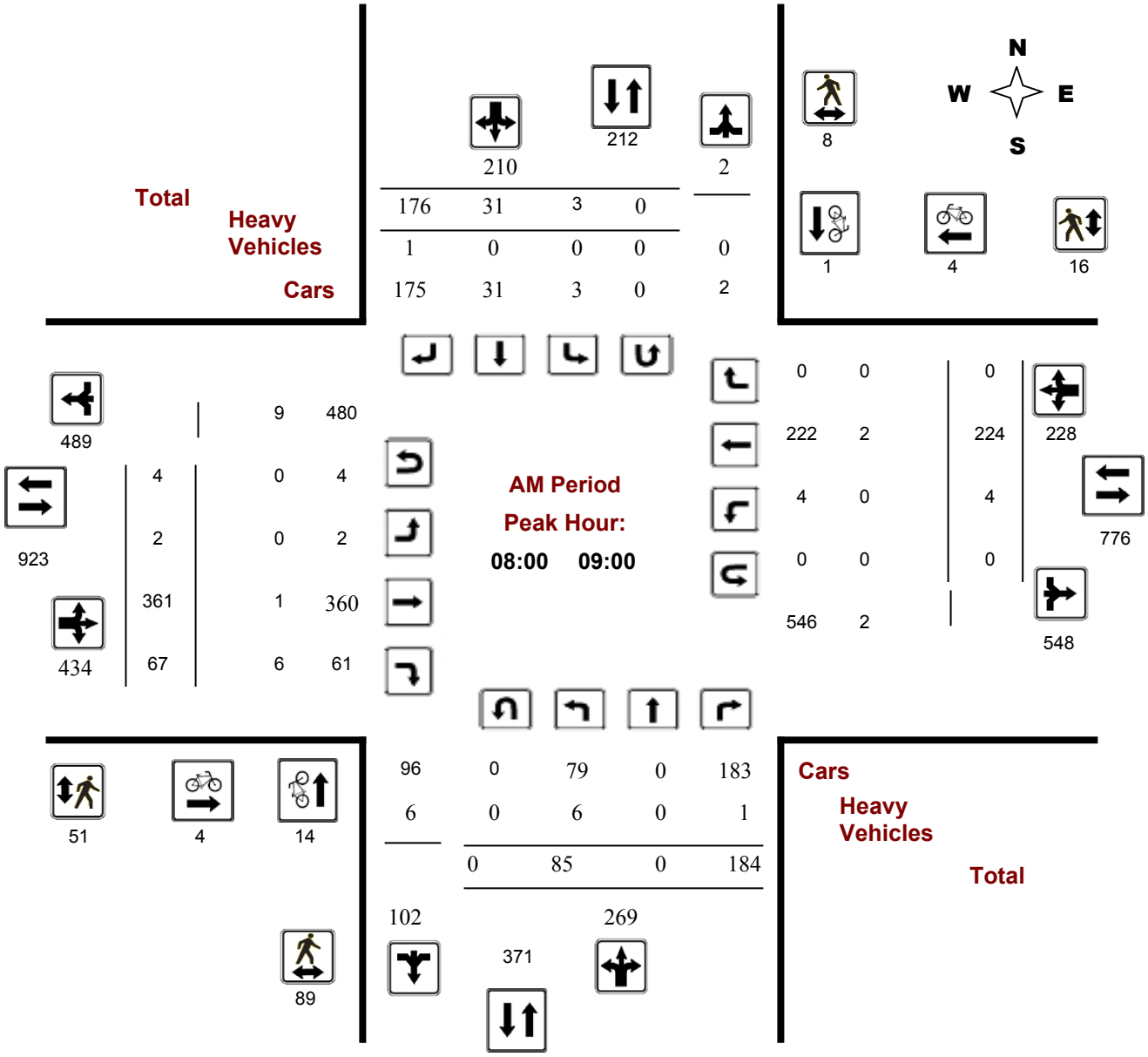
# Transportation Services - Traffic Services

## Turning Movement Count - Full Study Peak Hour Diagram

## AIRPORT PKWY/BROOKFIELD RD @ FLANNERY DR/AIRPORT PKWY RAMPS 52A/53

**Survey Date:** Thursday, September 22, 2016 **WO No:** 36342

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




**Comments**

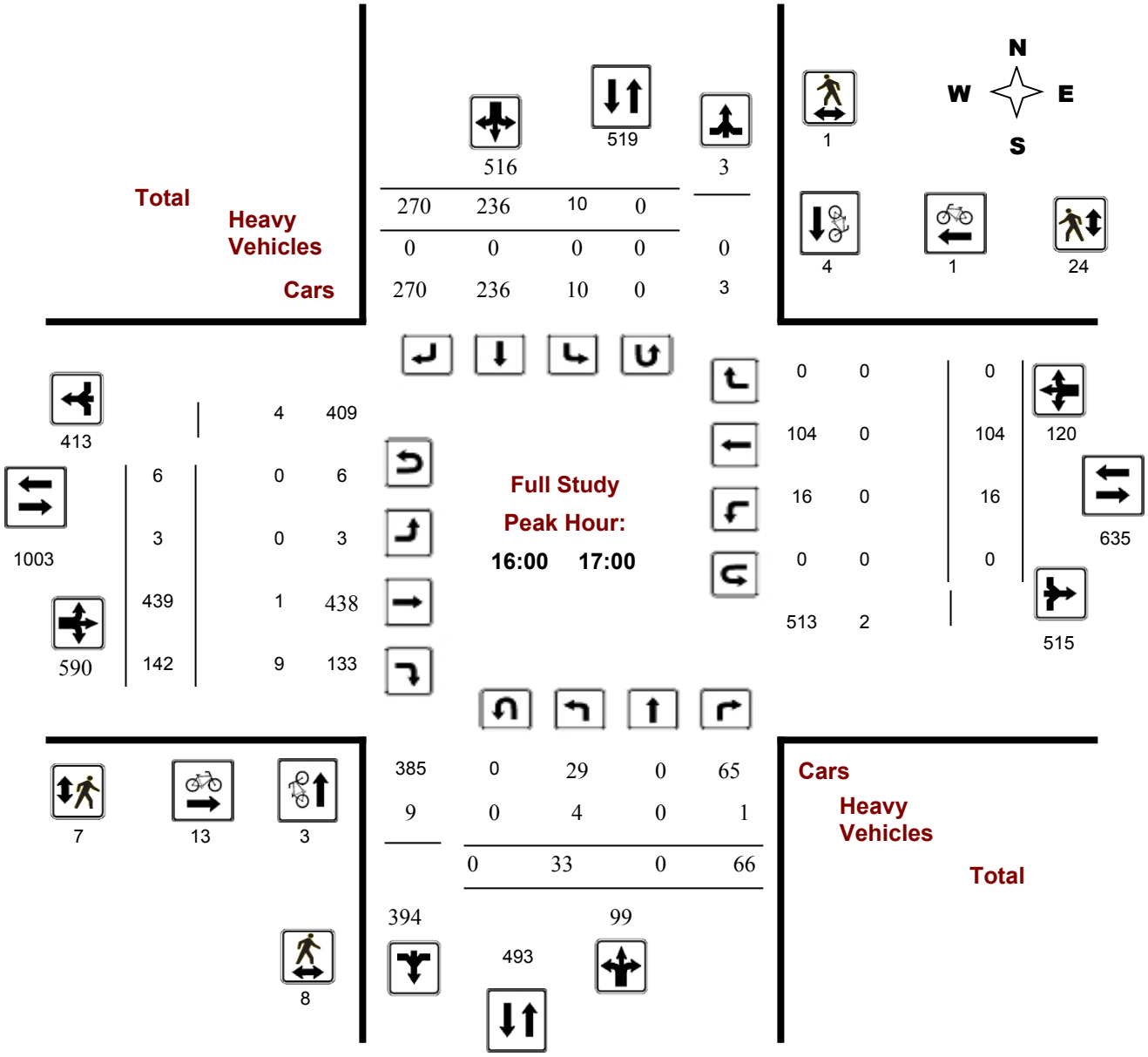
# Transportation Services - Traffic Services

## Turning Movement Count - Full Study Peak Hour Diagram

## AIRPORT PKWY/BROOKFIELD RD @ FLANNERY DR/AIRPORT PKWY RAMPS 52A/53

**Survey Date:** Thursday, September 22, 2016 **WO No:** 36342

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




**Comments**

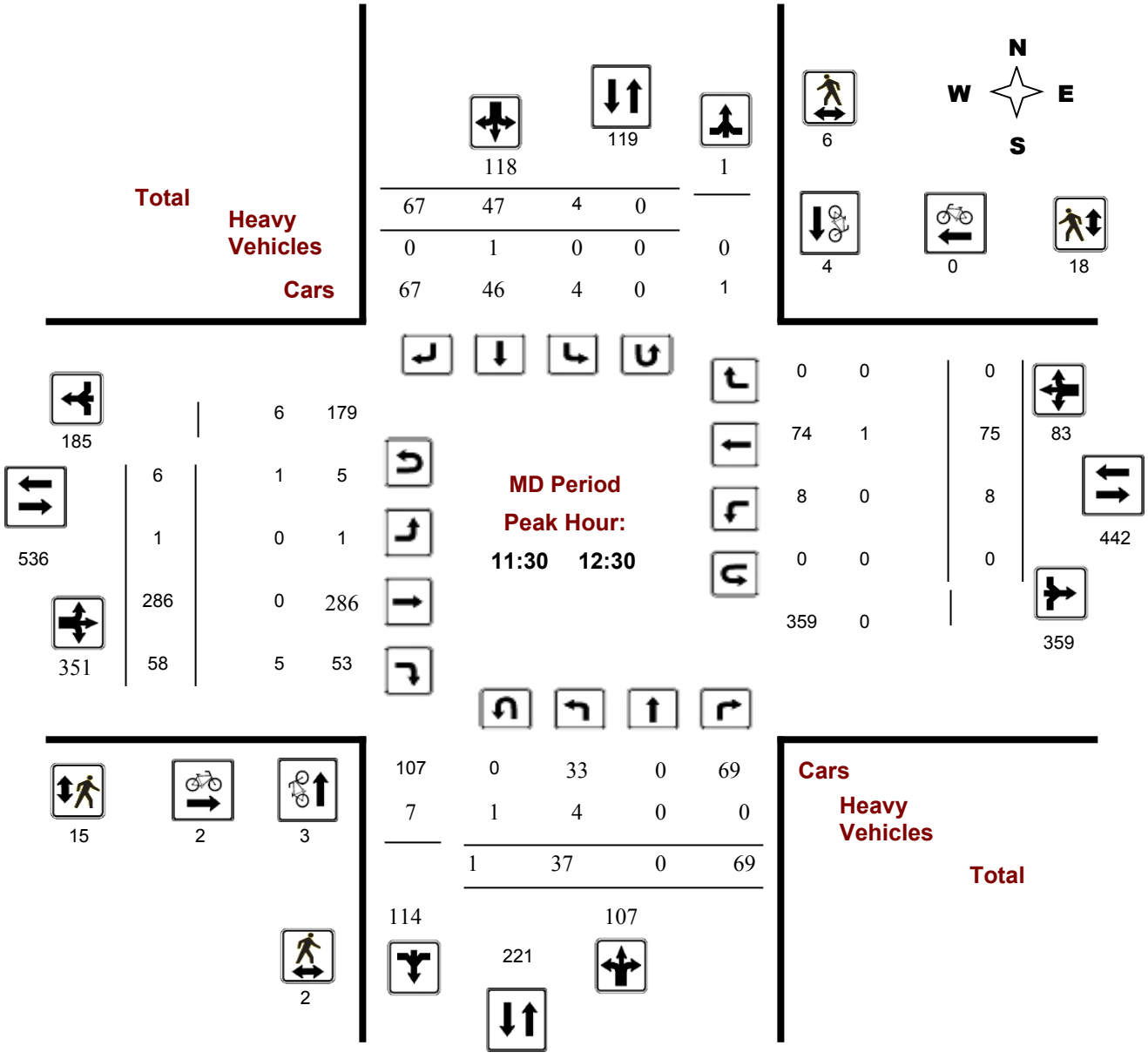
# Transportation Services - Traffic Services

## Turning Movement Count - Full Study Peak Hour Diagram

## AIRPORT PKWY/BROOKFIELD RD @ FLANNERY DR/AIRPORT PKWY RAMPS 52A/53

**Survey Date:** Thursday, September 22, 2016 **WO No:** 36342

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




**Comments**

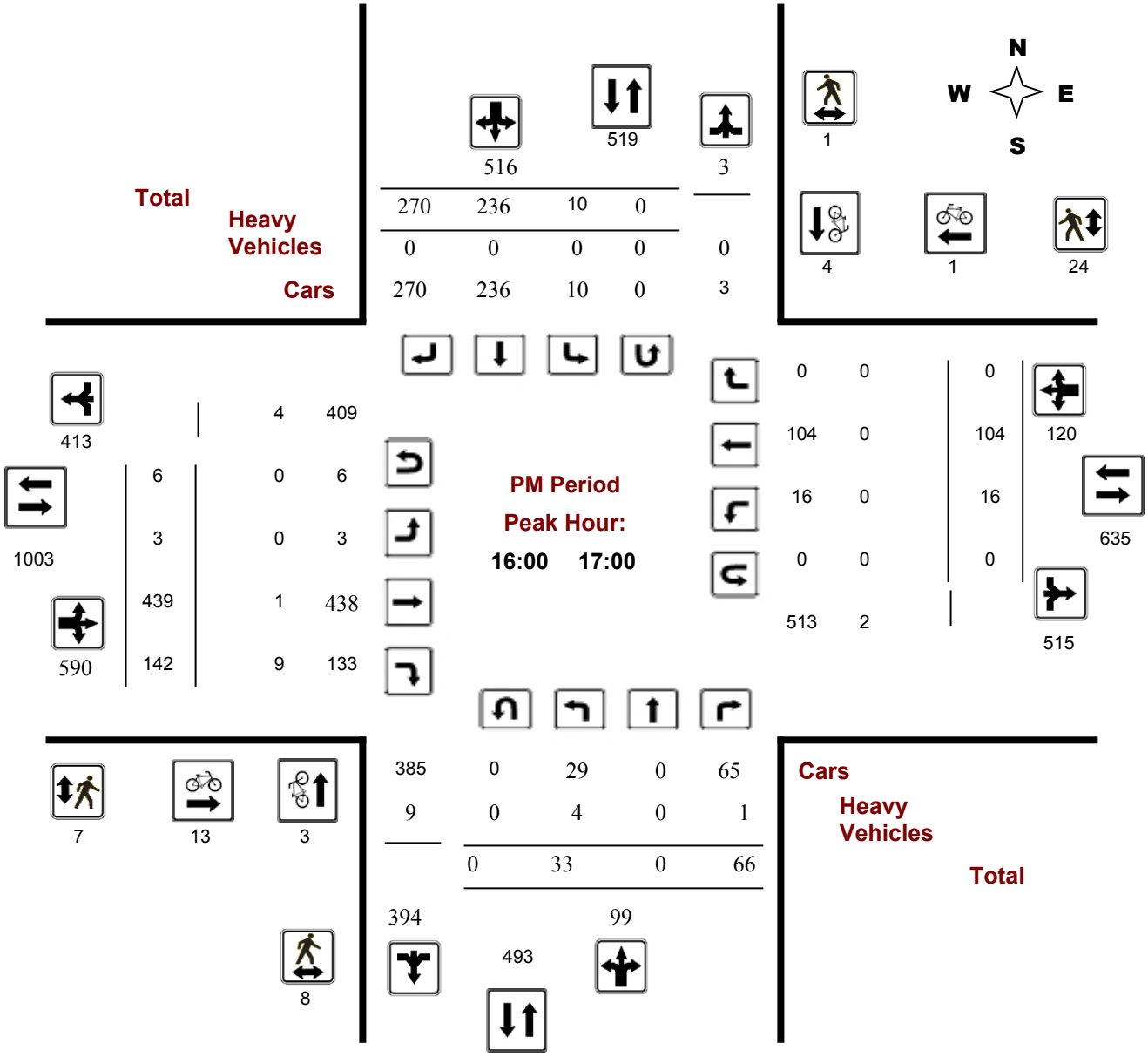
# Transportation Services - Traffic Services

## Turning Movement Count - Full Study Peak Hour Diagram

## AIRPORT PKWY/BROOKFIELD RD @ FLANNERY DR/AIRPORT PKWY RAMPS 52A/53

**Survey Date:** Thursday, September 22, 2016 **WO No:** 36342

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




**Comments**

# Transportation Services - Traffic Services

**Work Order**
36342

## Turning Movement Count - 15 Min U-Turn Total Report

## AIRPORT PKWY/BROOKFIELD RD @ FLANNERY DR/AIRPORT PKWY RAMPS 52A/53

**Survey Date:** Thursday, September 22, 2016

| Time Period | | Northbound U-Turn Total | Southbound U-Turn Total | Eastbound U-Turn Total | Westbound U-Turn Total | Total |
|---|---|---|---|---|---|---|
| 07:00 | 07:15 | 0 | 0 | 0 | 0 | 0 |
| 07:15 | 07:30 | 0 | 0 | 2 | 0 | 2 |
| 07:30 | 07:45 | 0 | 0 | 0 | 0 | 0 |
| 07:45 | 08:00 | 0 | 0 | 0 | 0 | 0 |
| 08:00 | 08:15 | 0 | 0 | 1 | 0 | 1 |
| 08:15 | 08:30 | 0 | 0 | 2 | 0 | 2 |
| 08:30 | 08:45 | 0 | 0 | 0 | 0 | 0 |
| 08:45 | 09:00 | 0 | 0 | 1 | 0 | 1 |
| 09:00 | 09:15 | 0 | 0 | 1 | 0 | 1 |
| 09:15 | 09:30 | 0 | 0 | 0 | 0 | 0 |
| 09:30 | 09:45 | 0 | 0 | 2 | 0 | 2 |
| 09:45 | 10:00 | 0 | 0 | 1 | 0 | 1 |
| 11:30 | 11:45 | 1 | 0 | 1 | 0 | 2 |
| 11:45 | 12:00 | 0 | 0 | 3 | 0 | 3 |
| 12:00 | 12:15 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 12:30 | 0 | 0 | 2 | 0 | 2 |
| 12:30 | 12:45 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 13:00 | 0 | 0 | 1 | 0 | 1 |
| 13:00 | 13:15 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 13:30 | 0 | 0 | 2 | 0 | 2 |
| 15:00 | 15:15 | 0 | 0 | 1 | 0 | 1 |
| 15:15 | 15:30 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 15:45 | 0 | 0 | 2 | 0 | 2 |
| 15:45 | 16:00 | 0 | 0 | 2 | 0 | 2 |
| 16:00 | 16:15 | 0 | 0 | 0 | 0 | 0 |
| 16:15 | 16:30 | 0 | 0 | 3 | 0 | 3 |
| 16:30 | 16:45 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 17:00 | 0 | 0 | 3 | 0 | 3 |
| 17:00 | 17:15 | 0 | 0 | 1 | 0 | 1 |
| 17:15 | 17:30 | 0 | 0 | 1 | 0 | 1 |
| 17:30 | 17:45 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 18:00 | 0 | 0 | 2 | 0 | 2 |
| Total | | 1 | 0 | 34 | 0 | 35 |

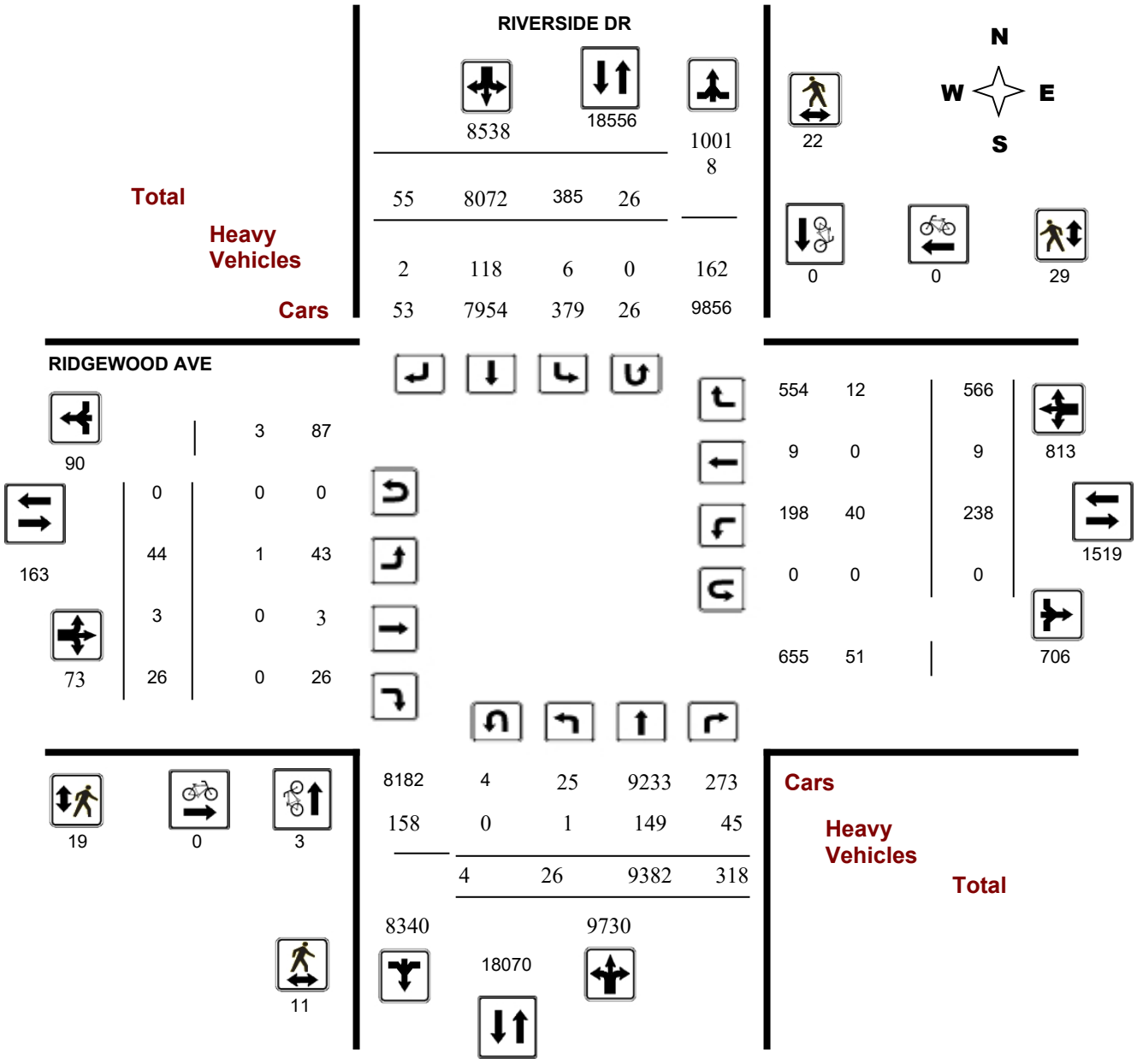
# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIDGEWOOD AVE @ RIVERSIDE DR

**Survey Date:** Wednesday, March 06, 2019
**Start Time:** 07:00
**WO No:** 38313
**Device:** Miovision

### Full Study Diagram



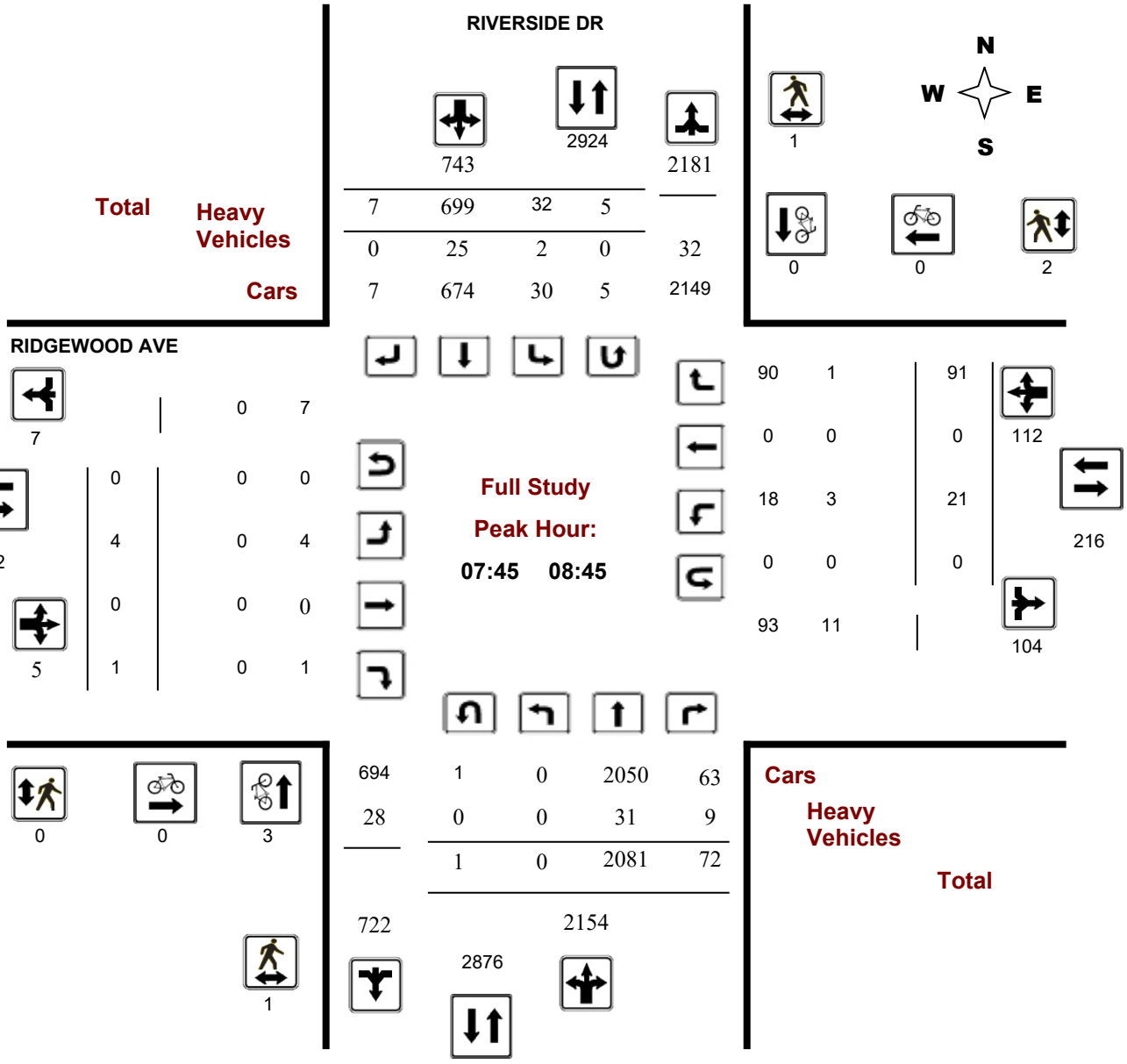
# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIDGEWOOD AVE @ RIVERSIDE DR

**Survey Date:** Wednesday, March 06, 2019
**Start Time:** 07:00
**WO No:** 38313
**Device:** Miovision

### Full Study Peak Hour Diagram



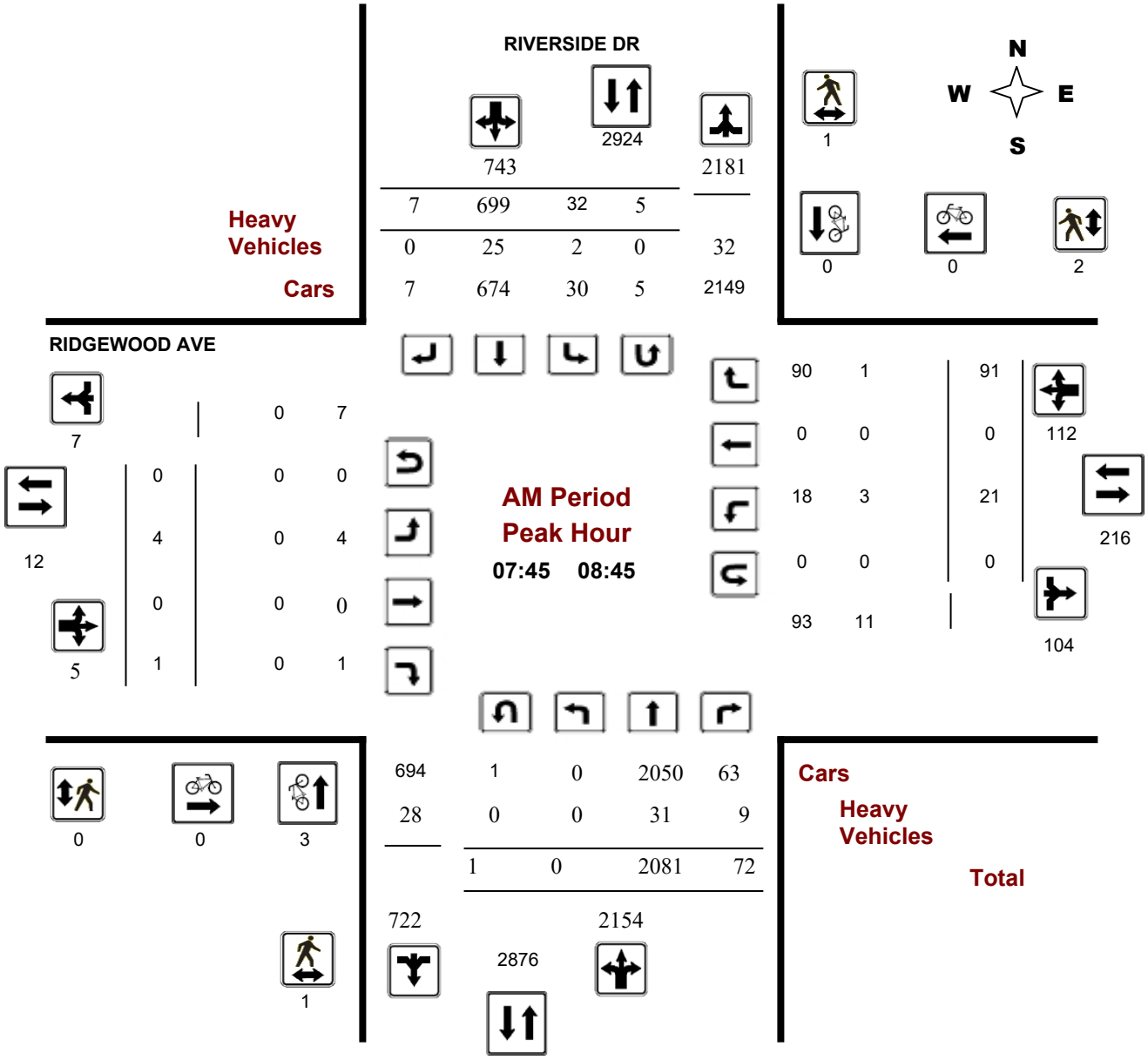
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## RIDGEWOOD AVE @ RIVERSIDE DR

**Survey Date:** Wednesday, March 06, 2019 **WO No:** 38313

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




**Comments**

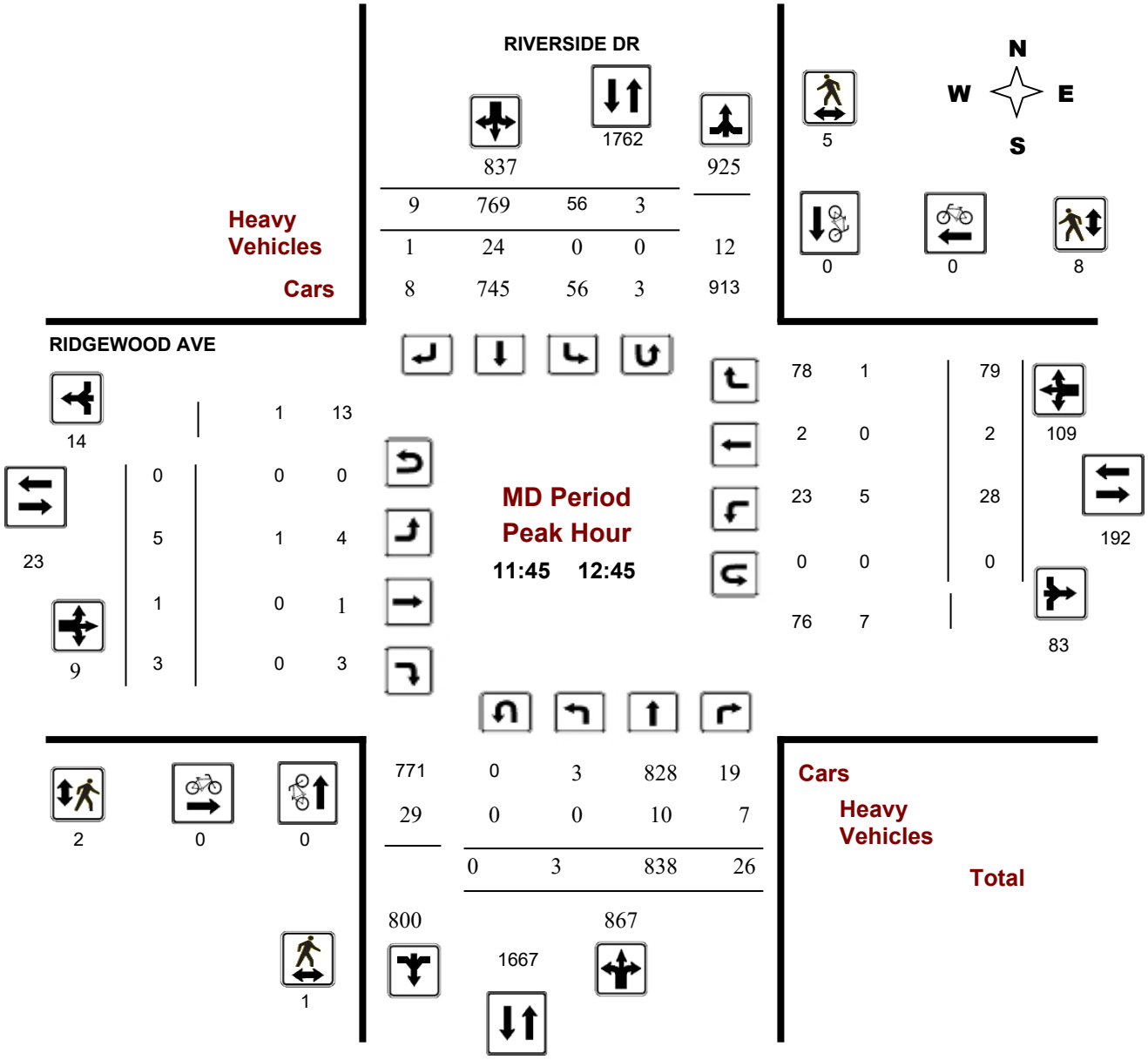
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## RIDGEWOOD AVE @ RIVERSIDE DR

**Survey Date:** Wednesday, March 06, 2019 **WO No:** 38313

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




**Comments**

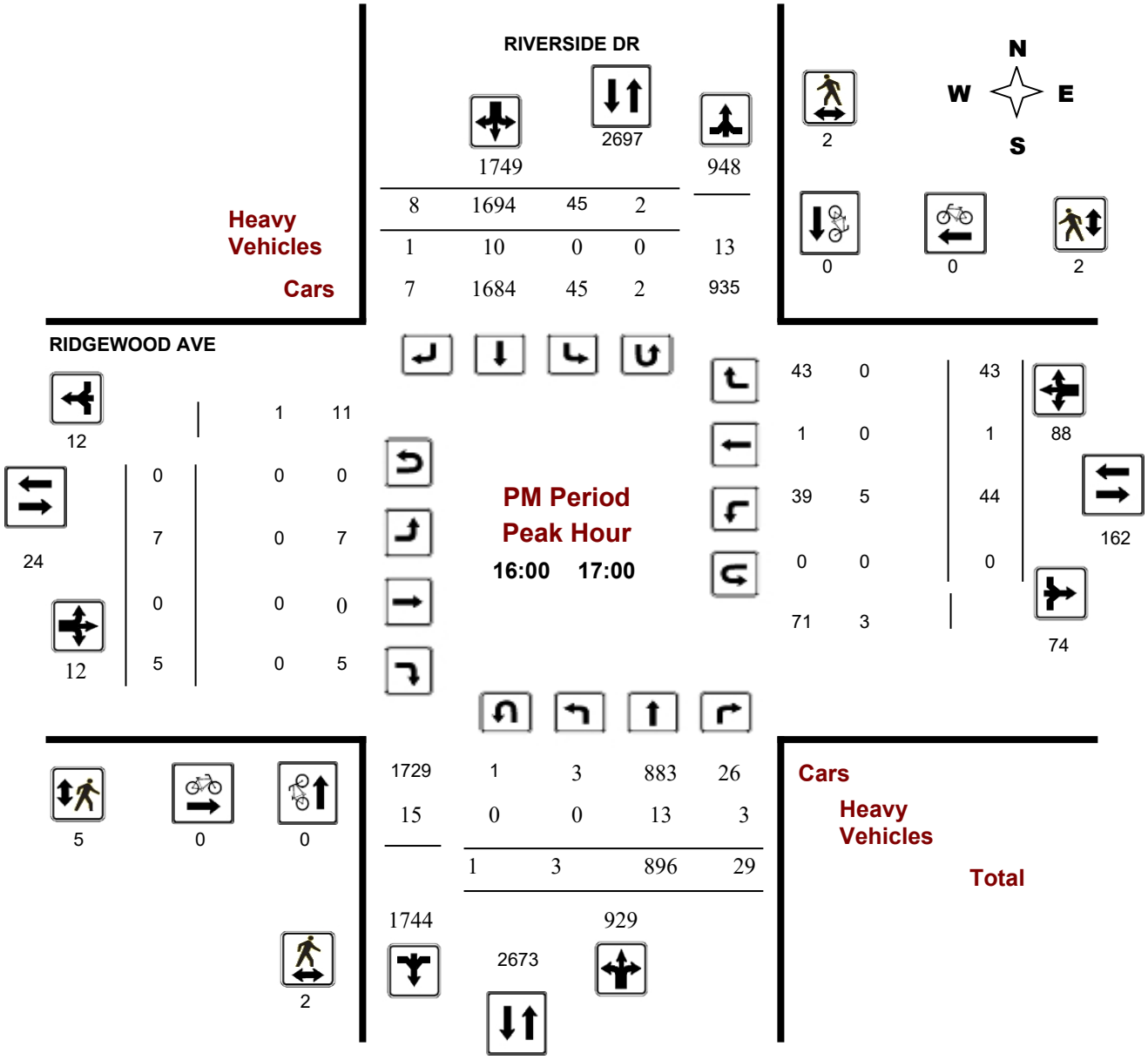
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## RIDGEWOOD AVE @ RIVERSIDE DR

**Survey Date:** Wednesday, March 06, 2019 **WO No:** 38313

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




**Comments**

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIDGEWOOD AVE @ RIVERSIDE DR

**Survey Date:** Wednesday, March 06, 2019 **WO No:** 38313

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

## Full Study Summary (8 HR Standard)

**Survey Date:** Wednesday, March 06, 2019

**Total Observed U-Turns**

Northbound: 4 Southbound: 26

Eastbound: 0 Westbound: 0

**AADT Factor**

1.00

| | RIVERSIDE DR | | | | | | | | | RIDGEWOOD AVE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Northbound | | | | Southbound | | | | | Eastbound | | | | Westbound | | | | | |
| Period | LT | ST | RT | NB TOT | LT | ST | RT | SB TOT | STR TOT | LT | ST | RT | EB TOT | LT | ST | RT | WB TOT | STR TOT | Grand Total |
| 07:00 08:00 | 0 | 1930 | 48 | **1978** | 25 | 624 | 2 | **651** | **2629** | 2 | 0 | 1 | **3** | 20 | 1 | 88 | **109** | **112** | **2741** |
| 08:00 09:00 | 1 | 2019 | 68 | **2088** | 42 | 730 | 7 | **779** | **2867** | 2 | 0 | 1 | **3** | 23 | 0 | 89 | **112** | **115** | **2982** |
| 09:00 10:00 | 3 | 1223 | 69 | **1295** | 68 | 609 | 2 | **679** | **1974** | 0 | 0 | 0 | **0** | 30 | 3 | 92 | **125** | **125** | **2099** |
| 11:30 12:30 | 7 | 811 | 25 | **843** | 59 | 765 | 6 | **830** | **1673** | 8 | 1 | 4 | **13** | 28 | 2 | 80 | **110** | **123** | **1796** |
| 12:30 13:30 | 1 | 828 | 29 | **858** | 49 | 727 | 12 | **788** | **1646** | 6 | 0 | 4 | **10** | 30 | 0 | 72 | **102** | **112** | **1758** |
| 15:00 16:00 | 5 | 798 | 32 | **835** | 51 | 1591 | 9 | **1651** | **2486** | 7 | 1 | 4 | **12** | 33 | 0 | 51 | **84** | **96** | **2582** |
| 16:00 17:00 | 3 | 896 | 29 | **928** | 45 | 1694 | 8 | **1747** | **2675** | 7 | 0 | 5 | **12** | 44 | 1 | 43 | **88** | **100** | **2775** |
| 17:00 18:00 | 6 | 877 | 18 | **901** | 46 | 1332 | 9 | **1387** | **2288** | 12 | 1 | 7 | **20** | 30 | 2 | 51 | **83** | **103** | **2391** |
| **Sub Total** | 26 | 9382 | 318 | **9726** | 385 | 8072 | 55 | **8512** | **18238** | 44 | 3 | 26 | **73** | 238 | 9 | 566 | **813** | **886** | **19124** |
| **U Turns** | | | | **4** | | | | **26** | **30** | | | | **0** | | | | **0** | **0** | **30** |
| **Total** | 26 | 9382 | 318 | **9730** | 385 | 8072 | 55 | **8538** | **18268** | 44 | 3 | 26 | **73** | 238 | 9 | 566 | **813** | **886** | **19154** |
| **EQ 12Hr** | 36 | 13041 | 442 | **13525** | 535 | 11220 | 76 | **11868** | **25393** | 61 | 4 | 36 | **101** | 331 | 13 | 787 | **1130** | **1232** | **26624** |
| Note: These values are calculated by multiplying the totals by the appropriate expansion factor. | | | | | | | | | | | | | | **1.39** | | | | | |
| **AVG 12Hr** | 34 | 12290 | 417 | **12746** | 504 | 10574 | 72 | **11185** | **25393** | 58 | 4 | 34 | **96** | 312 | 12 | 741 | **1065** | **1232** | **26624** |
| Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor. | | | | | | | | | | | | | | **1** | | | | | |
| **AVG 24Hr** | 45 | 16100 | 546 | **16698** | 661 | 13852 | 94 | **14652** | **31350** | 76 | 5 | 45 | **125** | 408 | 15 | 971 | **1395** | **1520** | **32870** |
| Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor. | | | | | | | | | | | | | | **1.31** | | | | | |

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

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIDGEWOOD AVE @ RIVERSIDE DR

**Survey Date:** Wednesday, March 06, 2019 **WO No:** 38313

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

## Full Study 15 Minute Increments

| | | RIVERSIDE DR | | | | | | | | | RIDGEWOOD AVE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Northbound | | | | Southbound | | | | | Eastbound | | | | Westbound | | | | | |
| Time Period | | LT | ST | RT | N TOT | LT | ST | RT | S TOT | STR TOT | LT | ST | RT | E TOT | LT | ST | RT | W TOT | STR TOT | Grand Total |
| 07:00 | 07:15 | 0 | 425 | 8 | 433 | 6 | 120 | 0 | 128 | 11 | 0 | 0 | 1 | 1 | 4 | 1 | 13 | 18 | 11 | 580 |
| 07:15 | 07:30 | 0 | 473 | 11 | 484 | 7 | 167 | 0 | 174 | 6 | 0 | 0 | 0 | 0 | 4 | 0 | 22 | 26 | 6 | 684 |
| 07:30 | 07:45 | 0 | 537 | 13 | 550 | 7 | 171 | 0 | 178 | 13 | 0 | 0 | 0 | 0 | 5 | 0 | 29 | 34 | 13 | 762 |
| 07:45 | 08:00 | 0 | 495 | 16 | 511 | 5 | 166 | 2 | 173 | 16 | 2 | 0 | 0 | 2 | 7 | 0 | 24 | 31 | 16 | 717 |
| 08:00 | 08:15 | 0 | 547 | 26 | 573 | 5 | 180 | 1 | 186 | 19 | 0 | 0 | 0 | 0 | 3 | 0 | 24 | 27 | 19 | 786 |
| 08:15 | 08:30 | 0 | 496 | 14 | 510 | 9 | 175 | 1 | 189 | 14 | 1 | 0 | 0 | 1 | 8 | 0 | 19 | 27 | 14 | 727 |
| 08:30 | 08:45 | 0 | 543 | 16 | 560 | 13 | 178 | 3 | 195 | 18 | 1 | 0 | 1 | 2 | 3 | 0 | 24 | 27 | 18 | 784 |
| 08:45 | 09:00 | 1 | 433 | 12 | 446 | 15 | 197 | 2 | 214 | 11 | 0 | 0 | 0 | 0 | 9 | 0 | 22 | 31 | 11 | 691 |
| 09:00 | 09:15 | 2 | 330 | 14 | 346 | 11 | 148 | 1 | 160 | 19 | 0 | 0 | 0 | 0 | 10 | 0 | 26 | 36 | 19 | 542 |
| 09:15 | 09:30 | 0 | 321 | 15 | 336 | 16 | 159 | 0 | 178 | 10 | 0 | 0 | 0 | 0 | 7 | 0 | 19 | 26 | 10 | 540 |
| 09:30 | 09:45 | 1 | 305 | 20 | 326 | 25 | 165 | 1 | 191 | 12 | 0 | 0 | 0 | 0 | 8 | 1 | 22 | 31 | 12 | 548 |
| 09:45 | 10:00 | 0 | 267 | 20 | 287 | 16 | 137 | 0 | 156 | 8 | 0 | 0 | 0 | 0 | 5 | 2 | 25 | 32 | 8 | 475 |
| 11:30 | 11:45 | 4 | 198 | 5 | 207 | 11 | 171 | 1 | 184 | 10 | 4 | 0 | 1 | 5 | 8 | 0 | 18 | 26 | 10 | 422 |
| 11:45 | 12:00 | 0 | 208 | 7 | 215 | 17 | 201 | 2 | 221 | 13 | 2 | 0 | 1 | 3 | 8 | 0 | 23 | 31 | 13 | 470 |
| 12:00 | 12:15 | 1 | 200 | 5 | 206 | 18 | 220 | 1 | 240 | 10 | 1 | 0 | 0 | 1 | 7 | 1 | 22 | 30 | 10 | 477 |
| 12:15 | 12:30 | 2 | 205 | 8 | 215 | 13 | 173 | 2 | 189 | 9 | 1 | 1 | 2 | 4 | 5 | 1 | 17 | 23 | 9 | 431 |
| 12:30 | 12:45 | 0 | 225 | 6 | 231 | 8 | 175 | 4 | 187 | 10 | 1 | 0 | 0 | 1 | 8 | 0 | 17 | 25 | 10 | 444 |
| 12:45 | 13:00 | 1 | 224 | 8 | 233 | 19 | 195 | 2 | 216 | 12 | 1 | 0 | 1 | 2 | 7 | 0 | 11 | 18 | 12 | 469 |
| 13:00 | 13:15 | 0 | 188 | 6 | 194 | 9 | 180 | 3 | 192 | 8 | 1 | 0 | 1 | 2 | 6 | 0 | 20 | 26 | 8 | 414 |
| 13:15 | 13:30 | 0 | 191 | 9 | 200 | 13 | 177 | 3 | 193 | 10 | 3 | 0 | 2 | 5 | 9 | 0 | 24 | 33 | 10 | 431 |
| 15:00 | 15:15 | 0 | 201 | 4 | 205 | 11 | 377 | 1 | 390 | 10 | 0 | 0 | 2 | 2 | 8 | 0 | 11 | 19 | 10 | 616 |
| 15:15 | 15:30 | 1 | 206 | 10 | 217 | 16 | 380 | 4 | 400 | 9 | 3 | 0 | 0 | 3 | 6 | 0 | 18 | 24 | 9 | 644 |
| 15:30 | 15:45 | 1 | 210 | 6 | 217 | 12 | 438 | 3 | 453 | 10 | 3 | 0 | 1 | 4 | 8 | 0 | 13 | 21 | 10 | 695 |
| 15:45 | 16:00 | 3 | 181 | 12 | 197 | 12 | 396 | 1 | 410 | 4 | 1 | 1 | 1 | 3 | 11 | 0 | 9 | 20 | 4 | 630 |
| 16:00 | 16:15 | 1 | 247 | 10 | 259 | 17 | 429 | 2 | 449 | 7 | 1 | 0 | 0 | 1 | 7 | 1 | 11 | 19 | 7 | 728 |
| 16:15 | 16:30 | 1 | 217 | 9 | 227 | 9 | 419 | 2 | 430 | 11 | 1 | 0 | 4 | 5 | 15 | 0 | 18 | 33 | 11 | 695 |
| 16:30 | 16:45 | 0 | 222 | 3 | 225 | 10 | 436 | 4 | 451 | 5 | 3 | 0 | 1 | 4 | 16 | 0 | 9 | 25 | 5 | 705 |
| 16:45 | 17:00 | 1 | 210 | 7 | 218 | 9 | 410 | 0 | 419 | 4 | 2 | 0 | 0 | 2 | 6 | 0 | 5 | 11 | 4 | 650 |
| 17:00 | 17:15 | 0 | 224 | 5 | 229 | 10 | 375 | 2 | 387 | 8 | 5 | 0 | 4 | 9 | 11 | 1 | 11 | 23 | 8 | 648 |
| 17:15 | 17:30 | 2 | 215 | 7 | 224 | 13 | 332 | 2 | 350 | 4 | 3 | 1 | 3 | 7 | 6 | 0 | 16 | 22 | 4 | 603 |
| 17:30 | 17:45 | 0 | 236 | 4 | 240 | 11 | 348 | 3 | 364 | 7 | 1 | 0 | 0 | 1 | 5 | 0 | 18 | 23 | 7 | 628 |
| 17:45 | 18:00 | 4 | 202 | 2 | 209 | 12 | 277 | 2 | 291 | 3 | 3 | 0 | 0 | 3 | 8 | 1 | 6 | 15 | 3 | 518 |
| Total: | | 26 | 9382 | 318 | 9730 | 385 | 8072 | 55 | 8538 | 321 | 44 | 3 | 26 | 73 | 238 | 9 | 566 | 813 | 321 | 19,154 |

Note: U-Turns are included in Totals.

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIDGEWOOD AVE @ RIVERSIDE DR

**Survey Date:** Wednesday, March 06, 2019 **WO No:** 38313

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

### Full Study Cyclist Volume

| Time Period | | RIVERSIDE DR | | | RIDGEWOOD AVE | | | |
|---|---|---|---|---|---|---|---|---|
| | | Northbound | Southbound | Street Total | Eastbound | Westbound | Street Total | Grand Total |
| 07:00 | 07:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 | 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 | 07:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:45 | 08:00 | 2 | 0 | 2 | 0 | 0 | 0 | 2 |
| 08:00 | 08:15 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 08:15 | 08:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:30 | 08:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:45 | 09:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:00 | 09:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:15 | 09:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:30 | 09:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:45 | 10:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 | 11:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 | 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:15 | 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:15 | 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:15 | 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:30 | 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 18:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | | 3 | 0 | **3** | 0 | 0 | 0 | 3 |

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIDGEWOOD AVE @ RIVERSIDE DR

**Survey Date:** Wednesday, March 06, 2019 **WO No:** 38313

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

### Full Study Pedestrian Volume

| | RIVERSIDE DR | | | RIDGEWOOD AVE | | | |
|---|---|---|---|---|---|---|---|
| Time Period | NB Approach (E or W Crossing) | SB Approach (E or W Crossing) | **Total** | EB Approach (N or S Crossing) | WB Approach (N or S Crossing) | **Total** | **Grand Total** |
| 07:00 07:15 | 1 | 0 | **1** | 0 | 0 | **0** | **1** |
| 07:15 07:30 | 0 | 0 | **0** | 0 | 0 | **0** | **0** |
| 07:30 07:45 | 0 | 0 | **0** | 0 | 0 | **0** | **0** |
| 07:45 08:00 | 0 | 0 | **0** | 0 | 1 | **1** | **1** |
| 08:00 08:15 | 0 | 0 | **0** | 0 | 1 | **1** | **1** |
| 08:15 08:30 | 0 | 0 | **0** | 0 | 0 | **0** | **0** |
| 08:30 08:45 | 1 | 1 | **2** | 0 | 0 | **0** | **2** |
| 08:45 09:00 | 1 | 0 | **1** | 1 | 1 | **2** | **3** |
| 09:00 09:15 | 0 | 1 | **1** | 0 | 0 | **0** | **1** |
| 09:15 09:30 | 0 | 0 | **0** | 1 | 0 | **1** | **1** |
| 09:30 09:45 | 1 | 1 | **2** | 0 | 0 | **0** | **2** |
| 09:45 10:00 | 0 | 1 | **1** | 0 | 1 | **1** | **2** |
| 11:30 11:45 | 0 | 0 | **0** | 1 | 0 | **1** | **1** |
| 11:45 12:00 | 0 | 3 | **3** | 0 | 0 | **0** | **3** |
| 12:00 12:15 | 0 | 0 | **0** | 2 | 4 | **6** | **6** |
| 12:15 12:30 | 1 | 2 | **3** | 0 | 3 | **3** | **6** |
| 12:30 12:45 | 0 | 0 | **0** | 0 | 1 | **1** | **1** |
| 12:45 13:00 | 1 | 1 | **2** | 3 | 0 | **3** | **5** |
| 13:00 13:15 | 0 | 0 | **0** | 0 | 1 | **1** | **1** |
| 13:15 13:30 | 0 | 0 | **0** | 0 | 1 | **1** | **1** |
| 15:00 15:15 | 1 | 1 | **2** | 0 | 3 | **3** | **5** |
| 15:15 15:30 | 0 | 0 | **0** | 1 | 1 | **2** | **2** |
| 15:30 15:45 | 0 | 1 | **1** | 1 | 0 | **1** | **2** |
| 15:45 16:00 | 0 | 1 | **1** | 0 | 2 | **2** | **3** |
| 16:00 16:15 | 0 | 2 | **2** | 2 | 1 | **3** | **5** |
| 16:15 16:30 | 1 | 0 | **1** | 0 | 0 | **0** | **1** |
| 16:30 16:45 | 1 | 0 | **1** | 2 | 1 | **3** | **4** |
| 16:45 17:00 | 0 | 0 | **0** | 1 | 0 | **1** | **1** |
| 17:00 17:15 | 0 | 4 | **4** | 0 | 4 | **4** | **8** |
| 17:15 17:30 | 1 | 0 | **1** | 1 | 1 | **2** | **3** |
| 17:30 17:45 | 1 | 3 | **4** | 1 | 2 | **3** | **7** |
| 17:45 18:00 | 0 | 0 | **0** | 2 | 0 | **2** | **2** |
| Total ..... | 11 | 22 | **33** | 19 | 29 | **48** | **81** |

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIDGEWOOD AVE @ RIVERSIDE DR

**Survey Date:** Wednesday, March 06, 2019 **WO No:** 38313

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

## Full Study Heavy Vehicles

| | | RIVERSIDE DR | | | | | | | | | RIDGEWOOD AVE | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Northbound | | | | Southbound | | | | | Eastbound | | | | Westbound | | | | | |
| Time Period | | LT | ST | RT | N TOT | LT | ST | RT | S TOT | STR TOT | LT | ST | RT | E TOT | LT | ST | RT | W TOT | STR TOT | Grand Total |
| 07:00 | 07:15 | 0 | 5 | 1 | **6** | 0 | 5 | 0 | **5** | **11** | 0 | 0 | 0 | **0** | 1 | 0 | 0 | **1** | **1** | **12** |
| 07:15 | 07:30 | 0 | 4 | 0 | **4** | 1 | 1 | 0 | **2** | **6** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | **0** | **6** |
| 07:30 | 07:45 | 0 | 5 | 2 | **7** | 1 | 5 | 0 | **6** | **13** | 0 | 0 | 0 | **0** | 1 | 0 | 0 | **1** | **1** | **14** |
| 07:45 | 08:00 | 0 | 5 | 3 | **8** | 0 | 8 | 0 | **8** | **16** | 0 | 0 | 0 | **0** | 1 | 0 | 1 | **2** | **2** | **18** |
| 08:00 | 08:15 | 0 | 11 | 3 | **14** | 0 | 5 | 0 | **5** | **19** | 0 | 0 | 0 | **0** | 1 | 0 | 0 | **1** | **1** | **20** |
| 08:15 | 08:30 | 0 | 7 | 2 | **9** | 0 | 5 | 0 | **5** | **14** | 0 | 0 | 0 | **0** | 1 | 0 | 0 | **1** | **1** | **15** |
| 08:30 | 08:45 | 0 | 8 | 1 | **9** | 2 | 7 | 0 | **9** | **18** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | **0** | **18** |
| 08:45 | 09:00 | 0 | 5 | 1 | **6** | 0 | 5 | 0 | **5** | **11** | 0 | 0 | 0 | **0** | 2 | 0 | 1 | **3** | **3** | **14** |
| 09:00 | 09:15 | 1 | 8 | 5 | **14** | 0 | 5 | 0 | **5** | **19** | 0 | 0 | 0 | **0** | 2 | 0 | 2 | **4** | **4** | **23** |
| 09:15 | 09:30 | 0 | 5 | 2 | **7** | 0 | 3 | 0 | **3** | **10** | 0 | 0 | 0 | **0** | 1 | 0 | 0 | **1** | **1** | **11** |
| 09:30 | 09:45 | 0 | 11 | 0 | **11** | 0 | 1 | 0 | **1** | **12** | 0 | 0 | 0 | **0** | 2 | 0 | 2 | **4** | **4** | **16** |
| 09:45 | 10:00 | 0 | 6 | 1 | **7** | 0 | 1 | 0 | **1** | **8** | 0 | 0 | 0 | **0** | 1 | 0 | 0 | **1** | **1** | **9** |
| 11:30 | 11:45 | 0 | 3 | 1 | **4** | 1 | 5 | 0 | **6** | **10** | 0 | 0 | 0 | **0** | 1 | 0 | 0 | **1** | **1** | **11** |
| 11:45 | 12:00 | 0 | 6 | 2 | **8** | 0 | 4 | 1 | **5** | **13** | 1 | 0 | 0 | **1** | 1 | 0 | 0 | **1** | **2** | **15** |
| 12:00 | 12:15 | 0 | 3 | 0 | **3** | 0 | 7 | 0 | **7** | **10** | 0 | 0 | 0 | **0** | 1 | 0 | 0 | **1** | **1** | **11** |
| 12:15 | 12:30 | 0 | 1 | 3 | **4** | 0 | 5 | 0 | **5** | **9** | 0 | 0 | 0 | **0** | 1 | 0 | 0 | **1** | **1** | **10** |
| 12:30 | 12:45 | 0 | 0 | 2 | **2** | 0 | 8 | 0 | **8** | **10** | 0 | 0 | 0 | **0** | 2 | 0 | 1 | **3** | **3** | **13** |
| 12:45 | 13:00 | 0 | 8 | 1 | **9** | 0 | 3 | 0 | **3** | **12** | 0 | 0 | 0 | **0** | 2 | 0 | 1 | **3** | **3** | **15** |
| 13:00 | 13:15 | 0 | 3 | 1 | **4** | 0 | 4 | 0 | **4** | **8** | 0 | 0 | 0 | **0** | 1 | 0 | 0 | **1** | **1** | **9** |
| 13:15 | 13:30 | 0 | 7 | 2 | **9** | 0 | 1 | 0 | **1** | **10** | 0 | 0 | 0 | **0** | 2 | 0 | 0 | **2** | **2** | **12** |
| 15:00 | 15:15 | 0 | 2 | 1 | **3** | 1 | 6 | 0 | **7** | **10** | 0 | 0 | 0 | **0** | 1 | 0 | 1 | **2** | **2** | **12** |
| 15:15 | 15:30 | 0 | 6 | 0 | **6** | 0 | 3 | 0 | **3** | **9** | 0 | 0 | 0 | **0** | 0 | 0 | 2 | **2** | **2** | **11** |
| 15:30 | 15:45 | 0 | 5 | 2 | **7** | 0 | 3 | 0 | **3** | **10** | 0 | 0 | 0 | **0** | 1 | 0 | 0 | **1** | **1** | **11** |
| 15:45 | 16:00 | 0 | 1 | 2 | **3** | 0 | 1 | 0 | **1** | **4** | 0 | 0 | 0 | **0** | 1 | 0 | 1 | **2** | **2** | **6** |
| 16:00 | 16:15 | 0 | 4 | 1 | **5** | 0 | 1 | 1 | **2** | **7** | 0 | 0 | 0 | **0** | 1 | 0 | 0 | **1** | **1** | **8** |
| 16:15 | 16:30 | 0 | 5 | 1 | **6** | 0 | 5 | 0 | **5** | **11** | 0 | 0 | 0 | **0** | 2 | 0 | 0 | **2** | **2** | **13** |
| 16:30 | 16:45 | 0 | 2 | 1 | **3** | 0 | 2 | 0 | **2** | **5** | 0 | 0 | 0 | **0** | 1 | 0 | 0 | **1** | **1** | **6** |
| 16:45 | 17:00 | 0 | 2 | 0 | **2** | 0 | 2 | 0 | **2** | **4** | 0 | 0 | 0 | **0** | 1 | 0 | 0 | **1** | **1** | **5** |
| 17:00 | 17:15 | 0 | 5 | 2 | **7** | 0 | 1 | 0 | **1** | **8** | 0 | 0 | 0 | **0** | 2 | 0 | 0 | **2** | **2** | **10** |
| 17:15 | 17:30 | 0 | 2 | 1 | **3** | 0 | 1 | 0 | **1** | **4** | 0 | 0 | 0 | **0** | 1 | 0 | 0 | **1** | **1** | **5** |
| 17:30 | 17:45 | 0 | 4 | 0 | **4** | 0 | 3 | 0 | **3** | **7** | 0 | 0 | 0 | **0** | 1 | 0 | 0 | **1** | **1** | **8** |
| 17:45 | 18:00 | 0 | 0 | 1 | **1** | 0 | 2 | 0 | **2** | **3** | 0 | 0 | 0 | **0** | 4 | 0 | 0 | **4** | **4** | **7** |
| Total: | None | 1 | 149 | 45 | **195** | 6 | 118 | 2 | **126** | **321** | 1 | 0 | 0 | **1** | 40 | 0 | 12 | **52** | **53** | **374** |

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIDGEWOOD AVE @ RIVERSIDE DR

**Survey Date:** Wednesday, March 06, 2019 **WO No:** 38313

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

### Full Study 15 Minute U-Turn Total

| Time Period | | RIVERSIDE DR Northbound U-Turn Total | RIVERSIDE DR Southbound U-Turn Total | RIDGEWOOD AVE Eastbound U-Turn Total | RIDGEWOOD AVE Westbound U-Turn Total | Total |
|---|---|---|---|---|---|---|
| 07:00 | 07:15 | 0 | 2 | 0 | 0 | 2 |
| 07:15 | 07:30 | 0 | 0 | 0 | 0 | 0 |
| 07:30 | 07:45 | 0 | 0 | 0 | 0 | 0 |
| 07:45 | 08:00 | 0 | 0 | 0 | 0 | 0 |
| 08:00 | 08:15 | 0 | 0 | 0 | 0 | 0 |
| 08:15 | 08:30 | 0 | 4 | 0 | 0 | 4 |
| 08:30 | 08:45 | 1 | 1 | 0 | 0 | 2 |
| 08:45 | 09:00 | 0 | 0 | 0 | 0 | 0 |
| 09:00 | 09:15 | 0 | 0 | 0 | 0 | 0 |
| 09:15 | 09:30 | 0 | 3 | 0 | 0 | 3 |
| 09:30 | 09:45 | 0 | 0 | 0 | 0 | 0 |
| 09:45 | 10:00 | 0 | 3 | 0 | 0 | 3 |
| 11:30 | 11:45 | 0 | 1 | 0 | 0 | 1 |
| 11:45 | 12:00 | 0 | 1 | 0 | 0 | 1 |
| 12:00 | 12:15 | 0 | 1 | 0 | 0 | 1 |
| 12:15 | 12:30 | 0 | 1 | 0 | 0 | 1 |
| 12:30 | 12:45 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 13:00 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 13:15 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 13:30 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | 15:15 | 0 | 1 | 0 | 0 | 1 |
| 15:15 | 15:30 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 15:45 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 16:00 | 1 | 1 | 0 | 0 | 2 |
| 16:00 | 16:15 | 1 | 1 | 0 | 0 | 2 |
| 16:15 | 16:30 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 16:45 | 0 | 1 | 0 | 0 | 1 |
| 16:45 | 17:00 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 17:15 | 0 | 0 | 0 | 0 | 0 |
| 17:15 | 17:30 | 0 | 3 | 0 | 0 | 3 |
| 17:30 | 17:45 | 0 | 2 | 0 | 0 | 2 |
| 17:45 | 18:00 | 1 | 0 | 0 | 0 | 1 |
| Total | | 4 | 26 | 0 | 0 | 30 |

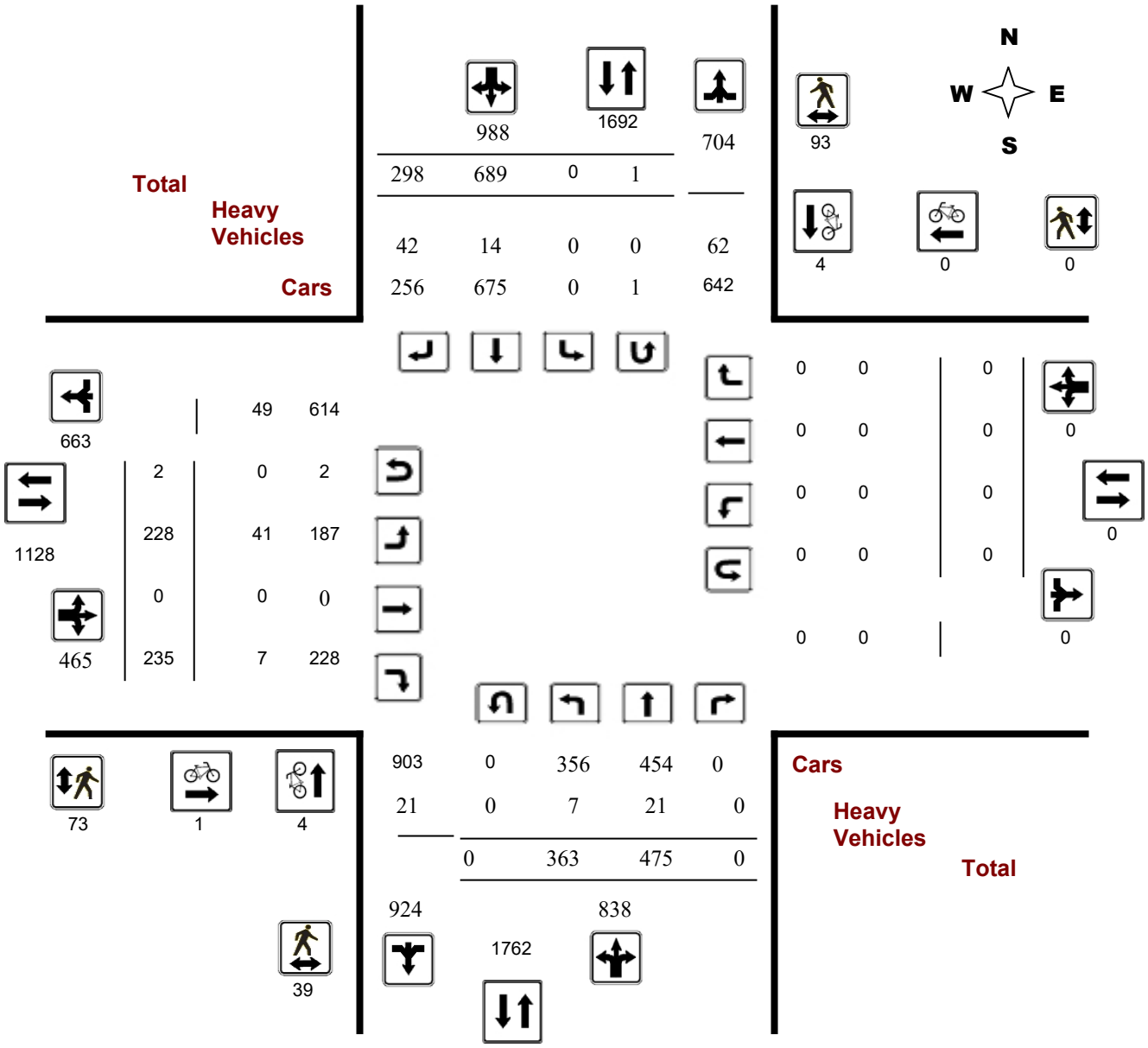
# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIDGEWOOD AVE @ SPRINGLAND DR

**Survey Date:** Thursday, December 05, 2019
**Start Time:** 07:00
**WO No:** 39196
**Device:** Miovision

### Full Study Diagram



# Transportation Services - Traffic Services

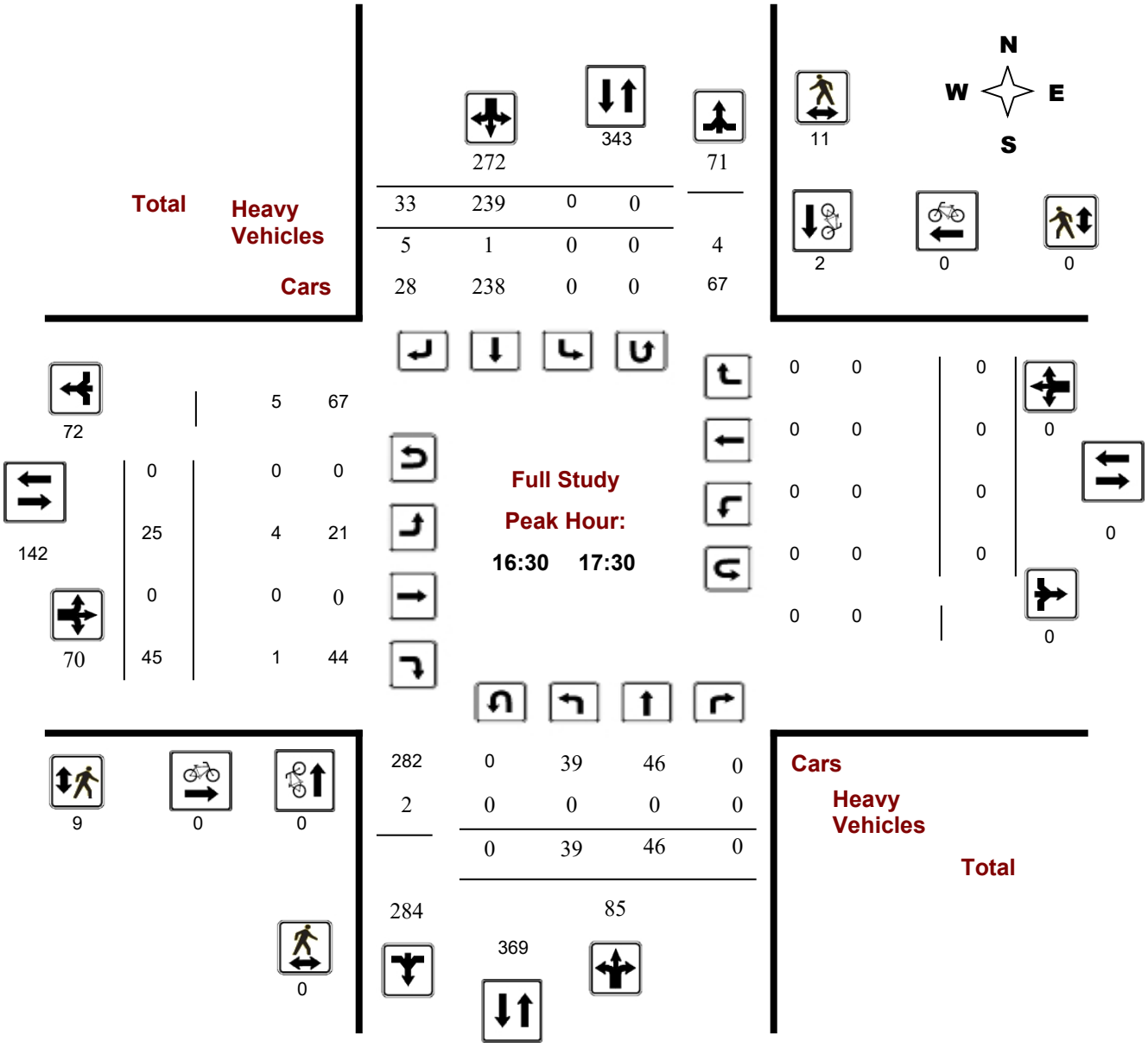
## Turning Movement Count - Study Results

## RIDGEWOOD AVE @ SPRINGLAND DR

**Survey Date:** Thursday, December 05, 2019 **WO No:** 39196

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

### Full Study Peak Hour Diagram



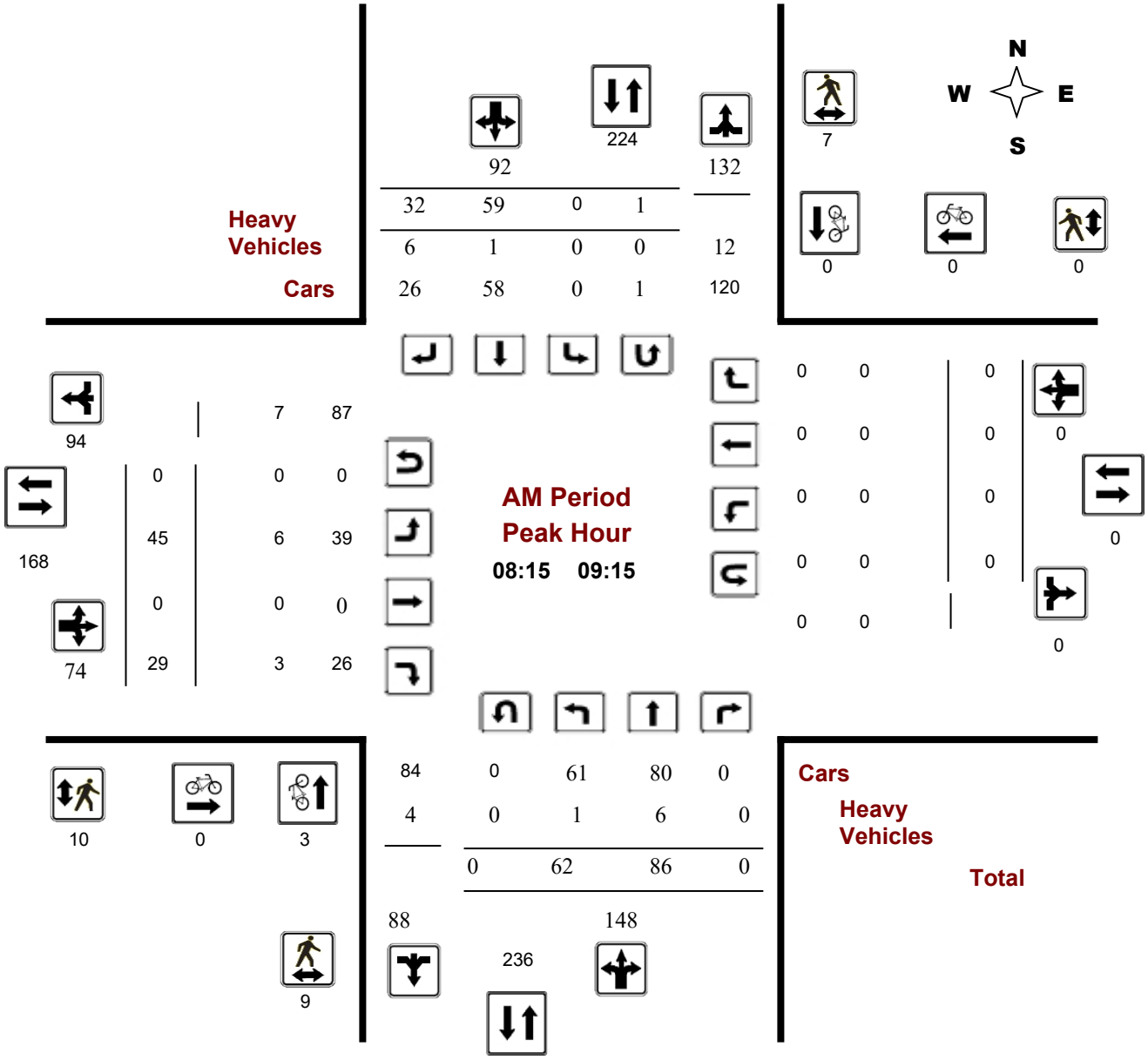
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## RIDGEWOOD AVE @ SPRINGLAND DR

**Survey Date:** Thursday, December 05, 2019 **WO No:** 39196

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




**Comments**

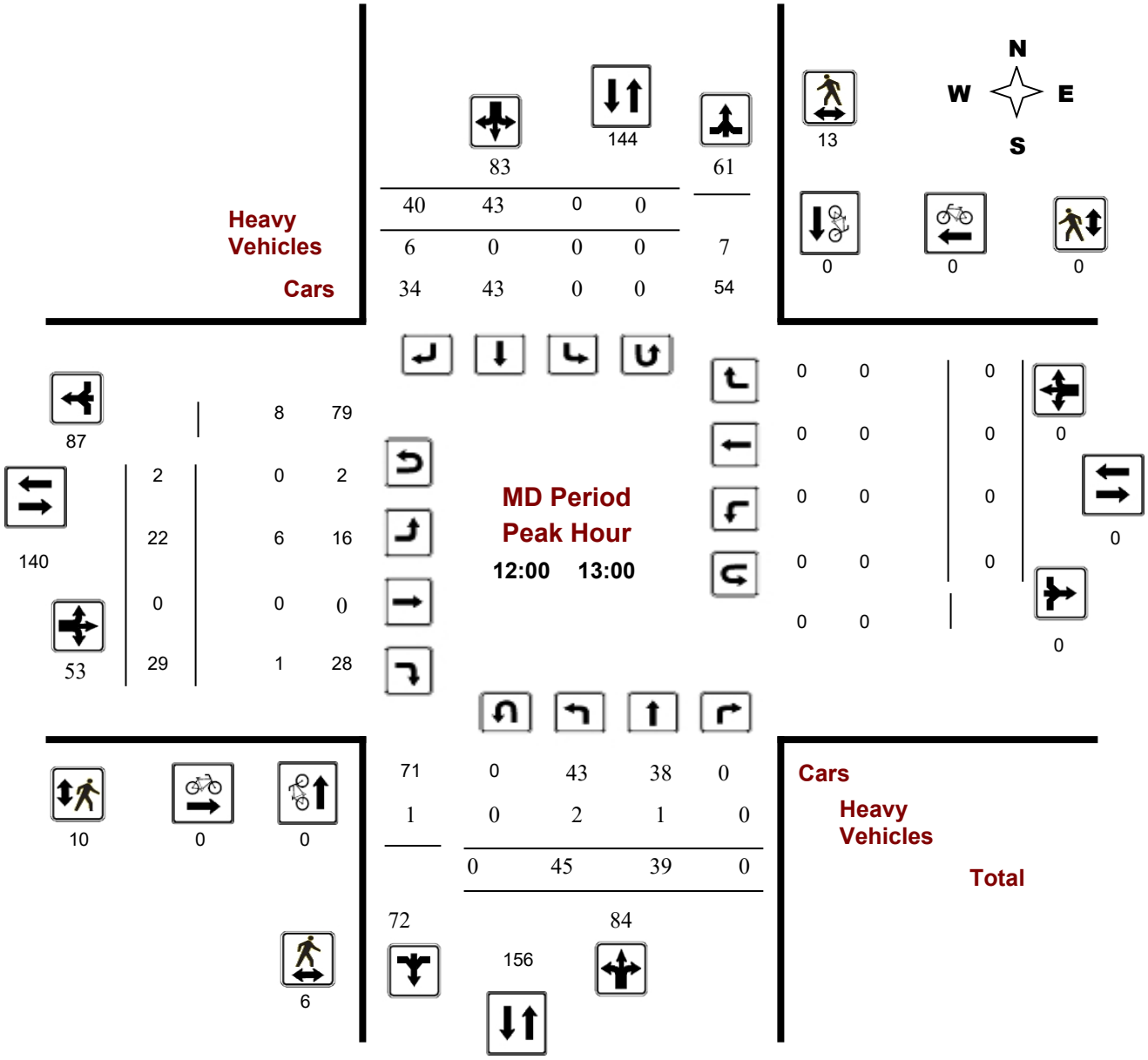
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## RIDGEWOOD AVE @ SPRINGLAND DR

**Survey Date:** Thursday, December 05, 2019 **WO No:** 39196

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




**Comments**

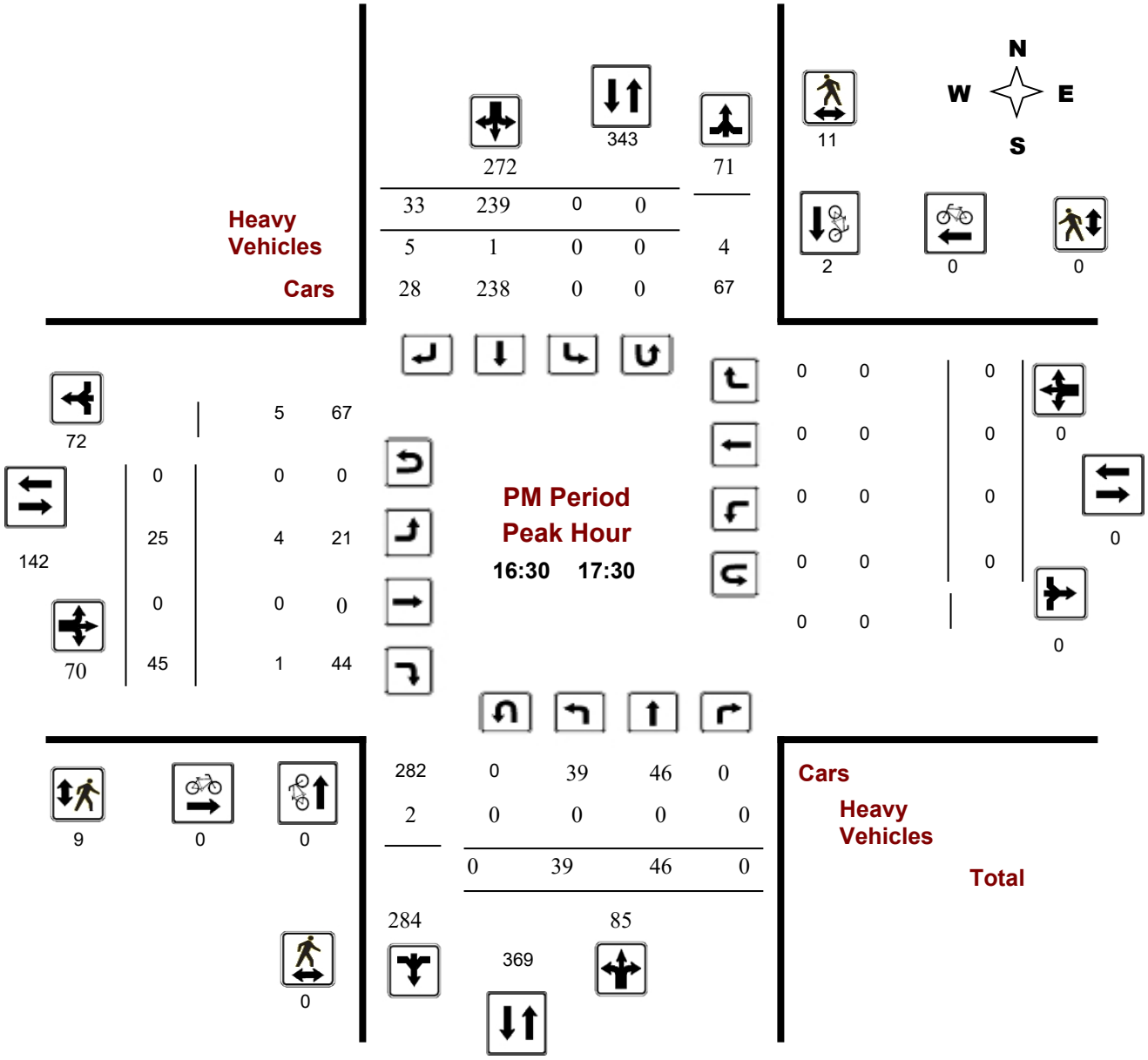
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## RIDGEWOOD AVE @ SPRINGLAND DR

**Survey Date:** Thursday, December 05, 2019 **WO No:** 39196

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




**Comments**

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIDGEWOOD AVE @ SPRINGLAND DR

**Survey Date:** Thursday, December 05, 2019 **WO No:** 39196

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

## Full Study Summary (8 HR Standard)

**Survey Date:** Thursday, December 05, 2019

**Total Observed U-Turns**

Northbound: 0 Southbound: 1

Eastbound: 2 Westbound: 0

**AADT Factor**

1.00

| | Northbound | | | | Southbound | | | | | Eastbound | | | | Westbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Period | LT | ST | RT | NB TOT | LT | ST | RT | SB TOT | STR TOT | LT | ST | RT | EB TOT | LT | ST | RT | WB TOT | STR TOT | Grand Total |
| 07:00 08:00 | 48 | 68 | 0 | **116** | 0 | 32 | 40 | **72** | **188** | 28 | 0 | 13 | **41** | 0 | 0 | 0 | **0** | **41** | **229** |
| 08:00 09:00 | 48 | 94 | 0 | **142** | 0 | 52 | 37 | **89** | **231** | 49 | 0 | 33 | **82** | 0 | 0 | 0 | **0** | **82** | **313** |
| 09:00 10:00 | 72 | 65 | 0 | **137** | 0 | 39 | 26 | **65** | **202** | 34 | 0 | 20 | **54** | 0 | 0 | 0 | **0** | **54** | **256** |
| 11:30 12:30 | 46 | 35 | 0 | **81** | 0 | 39 | 34 | **73** | **154** | 23 | 0 | 25 | **48** | 0 | 0 | 0 | **0** | **48** | **202** |
| 12:30 13:30 | 40 | 42 | 0 | **82** | 0 | 42 | 41 | **83** | **165** | 18 | 0 | 24 | **42** | 0 | 0 | 0 | **0** | **42** | **207** |
| 15:00 16:00 | 36 | 61 | 0 | **97** | 0 | 95 | 45 | **140** | **237** | 24 | 0 | 38 | **62** | 0 | 0 | 0 | **0** | **62** | **299** |
| 16:00 17:00 | 33 | 45 | 0 | **78** | 0 | 239 | 37 | **276** | **354** | 27 | 0 | 46 | **73** | 0 | 0 | 0 | **0** | **73** | **427** |
| 17:00 18:00 | 40 | 65 | 0 | **105** | 0 | 151 | 38 | **189** | **294** | 25 | 0 | 36 | **61** | 0 | 0 | 0 | **0** | **61** | **355** |
| **Sub Total** | 363 | 475 | 0 | **838** | 0 | 689 | 298 | **987** | **1825** | 228 | 0 | 235 | **463** | 0 | 0 | 0 | **0** | **463** | **2288** |
| **U Turns** | | | | **0** | | | | **1** | **1** | | | | **2** | | | | **0** | **2** | **3** |
| **Total** | 363 | 475 | 0 | **838** | 0 | 689 | 298 | **988** | **1826** | 228 | 0 | 235 | **465** | 0 | 0 | 0 | **0** | **465** | **2291** |
| **EQ 12Hr** | 505 | 660 | 0 | **1165** | 0 | 958 | 414 | **1373** | **2538** | 317 | 0 | 327 | **646** | 0 | 0 | 0 | **0** | **646** | **3184** |
| Note: These values are calculated by multiplying the totals by the appropriate expansion factor. | | | | | | | | | | | | | | **1.39** | | | | | |
| **AVG 12Hr** | 476 | 622 | 0 | **1098** | 0 | 903 | 390 | **1294** | **2538** | 299 | 0 | 308 | **609** | 0 | 0 | 0 | **0** | **646** | **3184** |
| Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor. | | | | | | | | | | | | | | **1** | | | | | |
| **AVG 24Hr** | 623 | 815 | 0 | **1438** | 0 | 1182 | 511 | **1696** | **3134** | 391 | 0 | 403 | **798** | 0 | 0 | 0 | **0** | **798** | **3932** |
| Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor. | | | | | | | | | | | | | | **1.31** | | | | | |

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

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIDGEWOOD AVE @ SPRINGLAND DR

**Survey Date:** Thursday, December 05, 2019 **WO No:** 39196

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

## Full Study 15 Minute Increments

| | | Northbound | | | | Southbound | | | | | Eastbound | | | | Westbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Time Period** | | **LT** | **ST** | **RT** | **N TOT** | **LT** | **ST** | **RT** | **S TOT** | **STR TOT** | **LT** | **ST** | **RT** | **E TOT** | **LT** | **ST** | **RT** | **W TOT** | **STR TOT** | **Grand Total** |
| 07:00 | 07:15 | 8 | 12 | 0 | 20 | 0 | 6 | 8 | 14 | 2 | 3 | 0 | 2 | 5 | 0 | 0 | 0 | 0 | 2 | 39 |
| 07:15 | 07:30 | 6 | 13 | 0 | 19 | 0 | 8 | 10 | 18 | 2 | 9 | 0 | 1 | 10 | 0 | 0 | 0 | 0 | 2 | 47 |
| 07:30 | 07:45 | 18 | 22 | 0 | 40 | 0 | 10 | 7 | 17 | 4 | 10 | 0 | 3 | 13 | 0 | 0 | 0 | 0 | 4 | 70 |
| 07:45 | 08:00 | 16 | 21 | 0 | 37 | 0 | 8 | 15 | 23 | 3 | 6 | 0 | 7 | 13 | 0 | 0 | 0 | 0 | 3 | 73 |
| 08:00 | 08:15 | 10 | 32 | 0 | 42 | 0 | 11 | 12 | 23 | 4 | 11 | 0 | 7 | 18 | 0 | 0 | 0 | 0 | 4 | 83 |
| 08:15 | 08:30 | 19 | 19 | 0 | 38 | 0 | 12 | 11 | 23 | 5 | 13 | 0 | 8 | 21 | 0 | 0 | 0 | 0 | 5 | 82 |
| 08:30 | 08:45 | 10 | 22 | 0 | 32 | 0 | 12 | 4 | 16 | 2 | 12 | 0 | 8 | 20 | 0 | 0 | 0 | 0 | 2 | 68 |
| 08:45 | 09:00 | 9 | 21 | 0 | 30 | 0 | 17 | 10 | 27 | 4 | 13 | 0 | 10 | 23 | 0 | 0 | 0 | 0 | 4 | 80 |
| 09:00 | 09:15 | 24 | 24 | 0 | 48 | 0 | 18 | 7 | 26 | 3 | 7 | 0 | 3 | 10 | 0 | 0 | 0 | 0 | 3 | 84 |
| 09:15 | 09:30 | 13 | 17 | 0 | 30 | 0 | 4 | 9 | 13 | 1 | 9 | 0 | 4 | 13 | 0 | 0 | 0 | 0 | 1 | 56 |
| 09:30 | 09:45 | 21 | 14 | 0 | 35 | 0 | 10 | 6 | 16 | 1 | 10 | 0 | 5 | 15 | 0 | 0 | 0 | 0 | 1 | 66 |
| 09:45 | 10:00 | 14 | 10 | 0 | 24 | 0 | 7 | 4 | 11 | 1 | 8 | 0 | 8 | 16 | 0 | 0 | 0 | 0 | 1 | 51 |
| 11:30 | 11:45 | 13 | 12 | 0 | 25 | 0 | 6 | 11 | 17 | 3 | 5 | 0 | 6 | 11 | 0 | 0 | 0 | 0 | 3 | 53 |
| 11:45 | 12:00 | 10 | 9 | 0 | 19 | 0 | 14 | 5 | 19 | 2 | 6 | 0 | 6 | 12 | 0 | 0 | 0 | 0 | 2 | 50 |
| 12:00 | 12:15 | 10 | 12 | 0 | 22 | 0 | 9 | 12 | 21 | 1 | 5 | 0 | 5 | 10 | 0 | 0 | 0 | 0 | 1 | 53 |
| 12:15 | 12:30 | 13 | 2 | 0 | 15 | 0 | 10 | 6 | 16 | 1 | 7 | 0 | 8 | 15 | 0 | 0 | 0 | 0 | 1 | 46 |
| 12:30 | 12:45 | 7 | 14 | 0 | 21 | 0 | 15 | 11 | 26 | 3 | 4 | 0 | 9 | 14 | 0 | 0 | 0 | 0 | 3 | 61 |
| 12:45 | 13:00 | 15 | 11 | 0 | 26 | 0 | 9 | 11 | 20 | 4 | 6 | 0 | 7 | 14 | 0 | 0 | 0 | 0 | 4 | 60 |
| 13:00 | 13:15 | 6 | 10 | 0 | 16 | 0 | 7 | 7 | 14 | 2 | 2 | 0 | 6 | 8 | 0 | 0 | 0 | 0 | 2 | 38 |
| 13:15 | 13:30 | 12 | 7 | 0 | 19 | 0 | 11 | 12 | 23 | 3 | 6 | 0 | 2 | 8 | 0 | 0 | 0 | 0 | 3 | 50 |
| 15:00 | 15:15 | 7 | 18 | 0 | 25 | 0 | 24 | 15 | 39 | 4 | 6 | 0 | 6 | 12 | 0 | 0 | 0 | 0 | 4 | 76 |
| 15:15 | 15:30 | 6 | 11 | 0 | 17 | 0 | 25 | 10 | 35 | 6 | 5 | 0 | 12 | 17 | 0 | 0 | 0 | 0 | 6 | 69 |
| 15:30 | 15:45 | 12 | 11 | 0 | 23 | 0 | 18 | 10 | 28 | 2 | 3 | 0 | 9 | 12 | 0 | 0 | 0 | 0 | 2 | 63 |
| 15:45 | 16:00 | 11 | 21 | 0 | 32 | 0 | 28 | 10 | 38 | 3 | 10 | 0 | 11 | 21 | 0 | 0 | 0 | 0 | 3 | 91 |
| 16:00 | 16:15 | 9 | 13 | 0 | 22 | 0 | 41 | 11 | 52 | 4 | 7 | 0 | 9 | 16 | 0 | 0 | 0 | 0 | 4 | 90 |
| 16:15 | 16:30 | 7 | 16 | 0 | 23 | 0 | 60 | 7 | 67 | 4 | 8 | 0 | 12 | 20 | 0 | 0 | 0 | 0 | 4 | 110 |
| 16:30 | 16:45 | 9 | 8 | 0 | 17 | 0 | 72 | 12 | 84 | 1 | 5 | 0 | 13 | 18 | 0 | 0 | 0 | 0 | 1 | 119 |
| 16:45 | 17:00 | 8 | 8 | 0 | 16 | 0 | 66 | 7 | 73 | 2 | 7 | 0 | 12 | 19 | 0 | 0 | 0 | 0 | 2 | 108 |
| 17:00 | 17:15 | 9 | 13 | 0 | 22 | 0 | 45 | 6 | 51 | 2 | 5 | 0 | 10 | 15 | 0 | 0 | 0 | 0 | 2 | 88 |
| 17:15 | 17:30 | 13 | 17 | 0 | 30 | 0 | 56 | 8 | 64 | 1 | 8 | 0 | 10 | 18 | 0 | 0 | 0 | 0 | 1 | 112 |
| 17:30 | 17:45 | 6 | 20 | 0 | 26 | 0 | 33 | 15 | 48 | 2 | 4 | 0 | 12 | 16 | 0 | 0 | 0 | 0 | 2 | 90 |
| 17:45 | 18:00 | 12 | 15 | 0 | 27 | 0 | 17 | 9 | 26 | 2 | 8 | 0 | 4 | 12 | 0 | 0 | 0 | 0 | 2 | 65 |
| Total: | | 363 | 475 | 0 | 838 | 0 | 689 | 298 | 988 | 84 | 228 | 0 | 235 | 465 | 0 | 0 | 0 | 0 | 84 | 2,291 |

Note: U-Turns are included in Totals.

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIDGEWOOD AVE @ SPRINGLAND DR

**Survey Date:** Thursday, December 05, 2019 **WO No:** 39196

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

## Full Study Cyclist Volume

| Time Period | | Northbound | Southbound | Street Total | Eastbound | Westbound | Street Total | Grand Total |
|---|---|---|---|---|---|---|---|---|
| 07:00 | 07:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 | 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 | 07:45 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 07:45 | 08:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 | 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 | 08:30 | 2 | 0 | 2 | 0 | 0 | 0 | 2 |
| 08:30 | 08:45 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 08:45 | 09:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:00 | 09:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:15 | 09:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:30 | 09:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:45 | 10:00 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 11:30 | 11:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 | 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | 15:15 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 15:15 | 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | 16:15 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 16:15 | 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 17:00 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 17:00 | 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:15 | 17:30 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 17:30 | 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 18:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | | 4 | 4 | **8** | 1 | 0 | 1 | 9 |

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIDGEWOOD AVE @ SPRINGLAND DR

**Survey Date:** Thursday, December 05, 2019 **WO No:** 39196

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

### Full Study Pedestrian Volume

| Time Period | NB Approach (E or W Crossing) | SB Approach (E or W Crossing) | Total | EB Approach (N or S Crossing) | WB Approach (N or S Crossing) | Total | Grand Total |
|---|---|---|---|---|---|---|---|
| 07:00 07:15 | 1 | 0 | **1** | 1 | 0 | **1** | **2** |
| 07:15 07:30 | 1 | 1 | **2** | 0 | 0 | **0** | **2** |
| 07:30 07:45 | 3 | 5 | **8** | 5 | 0 | **5** | **13** |
| 07:45 08:00 | 2 | 0 | **2** | 3 | 0 | **3** | **5** |
| 08:00 08:15 | 1 | 1 | **2** | 1 | 0 | **1** | **3** |
| 08:15 08:30 | 0 | 4 | **4** | 1 | 0 | **1** | **5** |
| 08:30 08:45 | 7 | 2 | **9** | 3 | 0 | **3** | **12** |
| 08:45 09:00 | 2 | 1 | **3** | 3 | 0 | **3** | **6** |
| 09:00 09:15 | 0 | 0 | **0** | 3 | 0 | **3** | **3** |
| 09:15 09:30 | 4 | 1 | **5** | 0 | 0 | **0** | **5** |
| 09:30 09:45 | 1 | 1 | **2** | 0 | 0 | **0** | **2** |
| 09:45 10:00 | 0 | 0 | **0** | 0 | 0 | **0** | **0** |
| 11:30 11:45 | 1 | 0 | **1** | 0 | 0 | **0** | **1** |
| 11:45 12:00 | 2 | 2 | **4** | 0 | 0 | **0** | **4** |
| 12:00 12:15 | 1 | 7 | **8** | 1 | 0 | **1** | **9** |
| 12:15 12:30 | 0 | 3 | **3** | 6 | 0 | **6** | **9** |
| 12:30 12:45 | 3 | 3 | **6** | 1 | 0 | **1** | **7** |
| 12:45 13:00 | 2 | 0 | **2** | 2 | 0 | **2** | **4** |
| 13:00 13:15 | 0 | 1 | **1** | 0 | 0 | **0** | **1** |
| 13:15 13:30 | 1 | 2 | **3** | 0 | 0 | **0** | **3** |
| 15:00 15:15 | 1 | 7 | **8** | 3 | 0 | **3** | **11** |
| 15:15 15:30 | 2 | 6 | **8** | 12 | 0 | **12** | **20** |
| 15:30 15:45 | 1 | 3 | **4** | 4 | 0 | **4** | **8** |
| 15:45 16:00 | 1 | 7 | **8** | 5 | 0 | **5** | **13** |
| 16:00 16:15 | 0 | 8 | **8** | 3 | 0 | **3** | **11** |
| 16:15 16:30 | 1 | 6 | **7** | 1 | 0 | **1** | **8** |
| 16:30 16:45 | 0 | 3 | **3** | 2 | 0 | **2** | **5** |
| 16:45 17:00 | 0 | 4 | **4** | 4 | 0 | **4** | **8** |
| 17:00 17:15 | 0 | 1 | **1** | 2 | 0 | **2** | **3** |
| 17:15 17:30 | 0 | 3 | **3** | 1 | 0 | **1** | **4** |
| 17:30 17:45 | 1 | 4 | **5** | 4 | 0 | **4** | **9** |
| 17:45 18:00 | 0 | 7 | **7** | 2 | 0 | **2** | **9** |
| Total ..... | 39 | 93 | **132** | 73 | 0 | **73** | **205** |

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIDGEWOOD AVE @ SPRINGLAND DR

**Survey Date:** Thursday, December 05, 2019 **WO No:** 39196

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

## Full Study Heavy Vehicles

| Time Period | | Northbound | | | | Southbound | | | | | Eastbound | | | | Westbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | LT | ST | RT | N TOT | LT | ST | RT | S TOT | STR TOT | LT | ST | RT | E TOT | LT | ST | RT | W TOT | STR TOT | Grand Total |
| 07:00 | 07:15 | 0 | 1 | 0 | **1** | 0 | 0 | 1 | **1** | **2** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | **0** | **2** |
| 07:15 | 07:30 | 0 | 1 | 0 | **1** | 0 | 0 | 1 | **1** | **2** | 1 | 0 | 1 | **2** | 0 | 0 | 0 | **0** | **2** | **4** |
| 07:30 | 07:45 | 1 | 2 | 0 | **3** | 0 | 0 | 1 | **1** | **4** | 2 | 0 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | **6** |
| 07:45 | 08:00 | 0 | 1 | 0 | **1** | 0 | 1 | 1 | **2** | **3** | 1 | 0 | 0 | **1** | 0 | 0 | 0 | **0** | **1** | **4** |
| 08:00 | 08:15 | 0 | 3 | 0 | **3** | 0 | 0 | 1 | **1** | **4** | 2 | 0 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | **6** |
| 08:15 | 08:30 | 1 | 1 | 0 | **2** | 0 | 0 | 3 | **3** | **5** | 2 | 0 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | **7** |
| 08:30 | 08:45 | 0 | 2 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | 1 | 0 | 2 | **3** | 0 | 0 | 0 | **0** | **3** | **5** |
| 08:45 | 09:00 | 0 | 2 | 0 | **2** | 0 | 0 | 2 | **2** | **4** | 1 | 0 | 1 | **2** | 0 | 0 | 0 | **0** | **2** | **6** |
| 09:00 | 09:15 | 0 | 1 | 0 | **1** | 0 | 1 | 1 | **2** | **3** | 2 | 0 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | **5** |
| 09:15 | 09:30 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 2 | 0 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | **3** |
| 09:30 | 09:45 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 2 | 0 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | **3** |
| 09:45 | 10:00 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 1 | 0 | 0 | **1** | 0 | 0 | 0 | **0** | **1** | **2** |
| 11:30 | 11:45 | 0 | 0 | 0 | **0** | 0 | 1 | 2 | **3** | **3** | 1 | 0 | 0 | **1** | 0 | 0 | 0 | **0** | **1** | **4** |
| 11:45 | 12:00 | 0 | 0 | 0 | **0** | 0 | 0 | 2 | **2** | **2** | 1 | 0 | 0 | **1** | 0 | 0 | 0 | **0** | **1** | **3** |
| 12:00 | 12:15 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 1 | 0 | 0 | **1** | 0 | 0 | 0 | **0** | **1** | **2** |
| 12:15 | 12:30 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 2 | 0 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | **3** |
| 12:30 | 12:45 | 0 | 1 | 0 | **1** | 0 | 0 | 2 | **2** | **3** | 1 | 0 | 1 | **2** | 0 | 0 | 0 | **0** | **2** | **5** |
| 12:45 | 13:00 | 2 | 0 | 0 | **2** | 0 | 0 | 2 | **2** | **4** | 2 | 0 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | **6** |
| 13:00 | 13:15 | 0 | 0 | 0 | **0** | 0 | 0 | 2 | **2** | **2** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | **0** | **2** |
| 13:15 | 13:30 | 1 | 0 | 0 | **1** | 0 | 1 | 1 | **2** | **3** | 2 | 0 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | **5** |
| 15:00 | 15:15 | 0 | 2 | 0 | **2** | 0 | 1 | 1 | **2** | **4** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | **0** | **4** |
| 15:15 | 15:30 | 0 | 1 | 0 | **1** | 0 | 2 | 3 | **5** | **6** | 2 | 0 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | **8** |
| 15:30 | 15:45 | 0 | 1 | 0 | **1** | 0 | 0 | 1 | **1** | **2** | 1 | 0 | 0 | **1** | 0 | 0 | 0 | **0** | **1** | **3** |
| 15:45 | 16:00 | 1 | 0 | 0 | **1** | 0 | 1 | 1 | **2** | **3** | 2 | 0 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | **5** |
| 16:00 | 16:15 | 1 | 1 | 0 | **2** | 0 | 1 | 1 | **2** | **4** | 2 | 0 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | **6** |
| 16:15 | 16:30 | 0 | 1 | 0 | **1** | 0 | 2 | 1 | **3** | **4** | 1 | 0 | 1 | **2** | 0 | 0 | 0 | **0** | **2** | **6** |
| 16:30 | 16:45 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | **0** | **1** |
| 16:45 | 17:00 | 0 | 0 | 0 | **0** | 0 | 1 | 1 | **2** | **2** | 2 | 0 | 1 | **3** | 0 | 0 | 0 | **0** | **3** | **5** |
| 17:00 | 17:15 | 0 | 0 | 0 | **0** | 0 | 0 | 2 | **2** | **2** | 1 | 0 | 0 | **1** | 0 | 0 | 0 | **0** | **1** | **3** |
| 17:15 | 17:30 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 1 | 0 | 0 | **1** | 0 | 0 | 0 | **0** | **1** | **2** |
| 17:30 | 17:45 | 0 | 0 | 0 | **0** | 0 | 1 | 1 | **2** | **2** | 1 | 0 | 0 | **1** | 0 | 0 | 0 | **0** | **1** | **3** |
| 17:45 | 18:00 | 0 | 0 | 0 | **0** | 0 | 1 | 1 | **2** | **2** | 1 | 0 | 0 | **1** | 0 | 0 | 0 | **0** | **1** | **3** |
| Total: | None | 7 | 21 | 0 | **28** | 0 | 14 | 42 | **56** | **84** | 41 | 0 | 7 | **48** | 0 | 0 | 0 | **0** | **48** | **132** |

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIDGEWOOD AVE @ SPRINGLAND DR

**Survey Date:** Thursday, December 05, 2019 **WO No:** 39196

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

### Full Study 15 Minute U-Turn Total

| Time Period | | Northbound U-Turn Total | Southbound U-Turn Total | Eastbound U-Turn Total | Westbound U-Turn Total | Total |
|---|---|---|---|---|---|---|
| 07:00 | 07:15 | 0 | 0 | 0 | 0 | 0 |
| 07:15 | 07:30 | 0 | 0 | 0 | 0 | 0 |
| 07:30 | 07:45 | 0 | 0 | 0 | 0 | 0 |
| 07:45 | 08:00 | 0 | 0 | 0 | 0 | 0 |
| 08:00 | 08:15 | 0 | 0 | 0 | 0 | 0 |
| 08:15 | 08:30 | 0 | 0 | 0 | 0 | 0 |
| 08:30 | 08:45 | 0 | 0 | 0 | 0 | 0 |
| 08:45 | 09:00 | 0 | 0 | 0 | 0 | 0 |
| 09:00 | 09:15 | 0 | 1 | 0 | 0 | 1 |
| 09:15 | 09:30 | 0 | 0 | 0 | 0 | 0 |
| 09:30 | 09:45 | 0 | 0 | 0 | 0 | 0 |
| 09:45 | 10:00 | 0 | 0 | 0 | 0 | 0 |
| 11:30 | 11:45 | 0 | 0 | 0 | 0 | 0 |
| 11:45 | 12:00 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 12:15 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 12:30 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 12:45 | 0 | 0 | 1 | 0 | 1 |
| 12:45 | 13:00 | 0 | 0 | 1 | 0 | 1 |
| 13:00 | 13:15 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 13:30 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | 15:15 | 0 | 0 | 0 | 0 | 0 |
| 15:15 | 15:30 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 15:45 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 16:00 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | 16:15 | 0 | 0 | 0 | 0 | 0 |
| 16:15 | 16:30 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 16:45 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 17:00 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 17:15 | 0 | 0 | 0 | 0 | 0 |
| 17:15 | 17:30 | 0 | 0 | 0 | 0 | 0 |
| 17:30 | 17:45 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 18:00 | 0 | 0 | 0 | 0 | 0 |
| Total | | 0 | 1 | 2 | 0 | 3 |

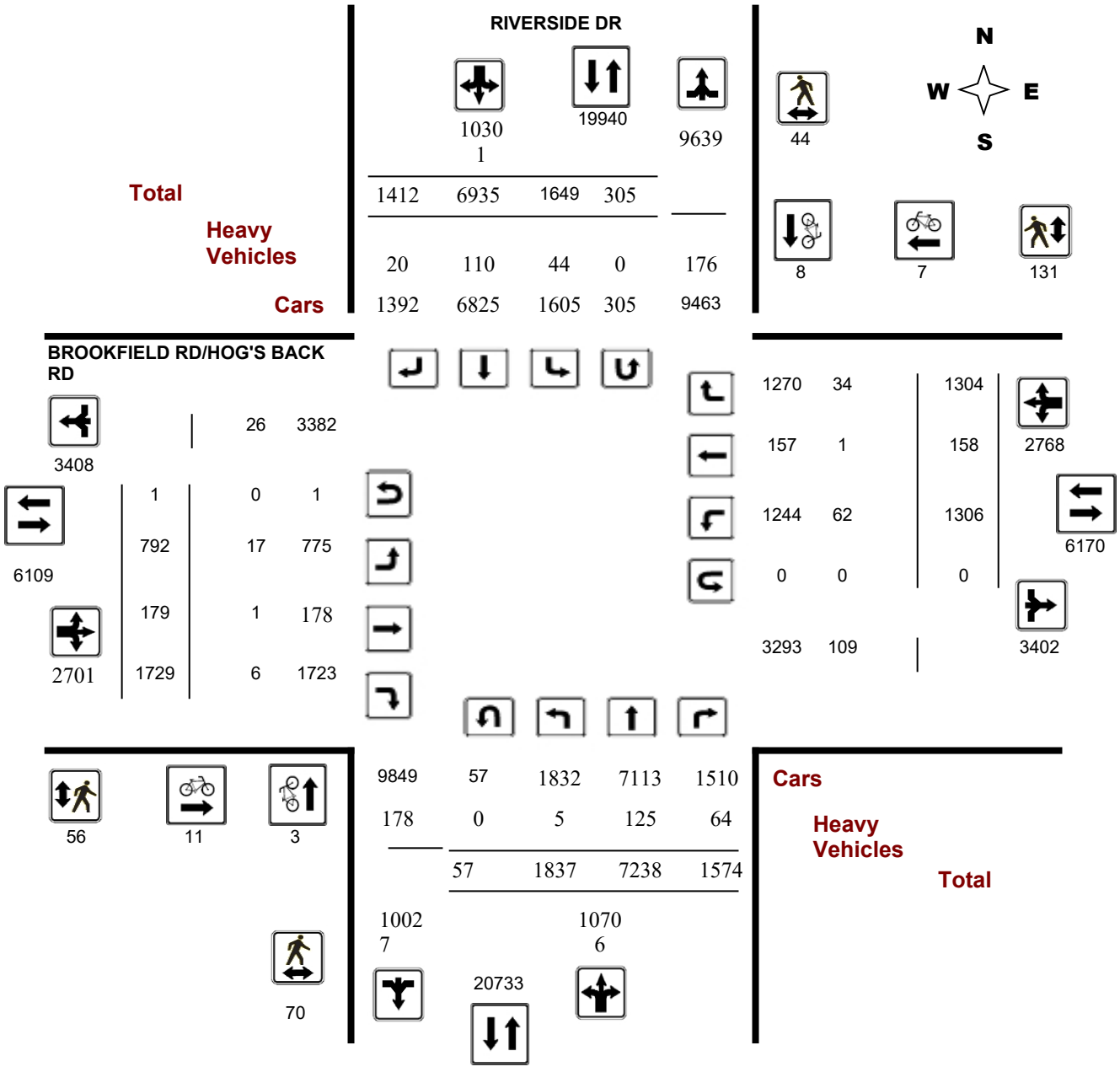
# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIVERSIDE DR @ BROOKFIELD RD/HOG'S BACK RD

**Survey Date:** Tuesday, March 03, 2020
**Start Time:** 07:00
**WO No:** 39649
**Device:** Miovision

### Full Study Diagram



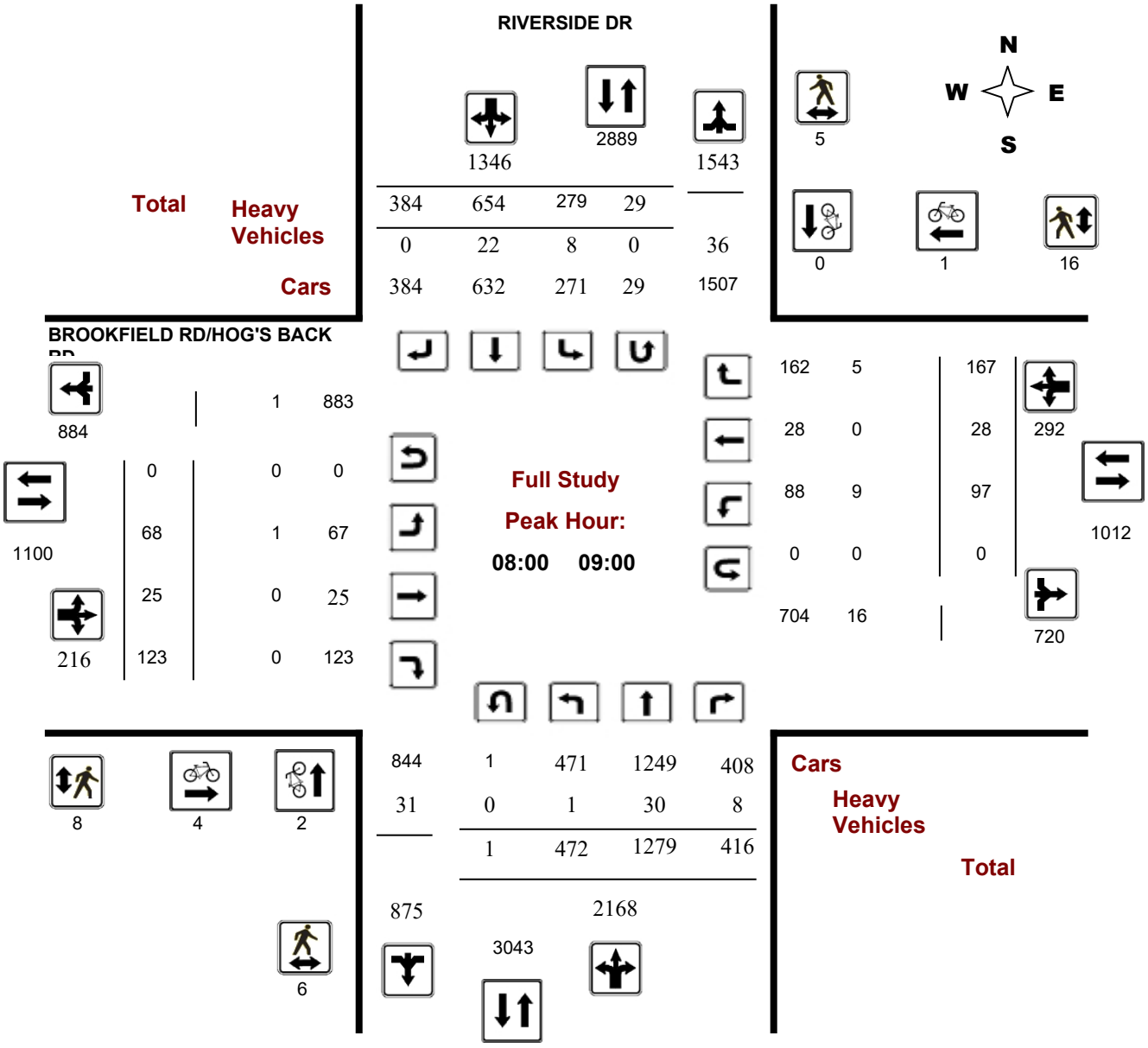
# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIVERSIDE DR @ BROOKFIELD RD/HOG'S BACK RD

**Survey Date:** Tuesday, March 03, 2020
**Start Time:** 07:00
**WO No:** 39649
**Device:** Miovision

## Full Study Peak Hour Diagram



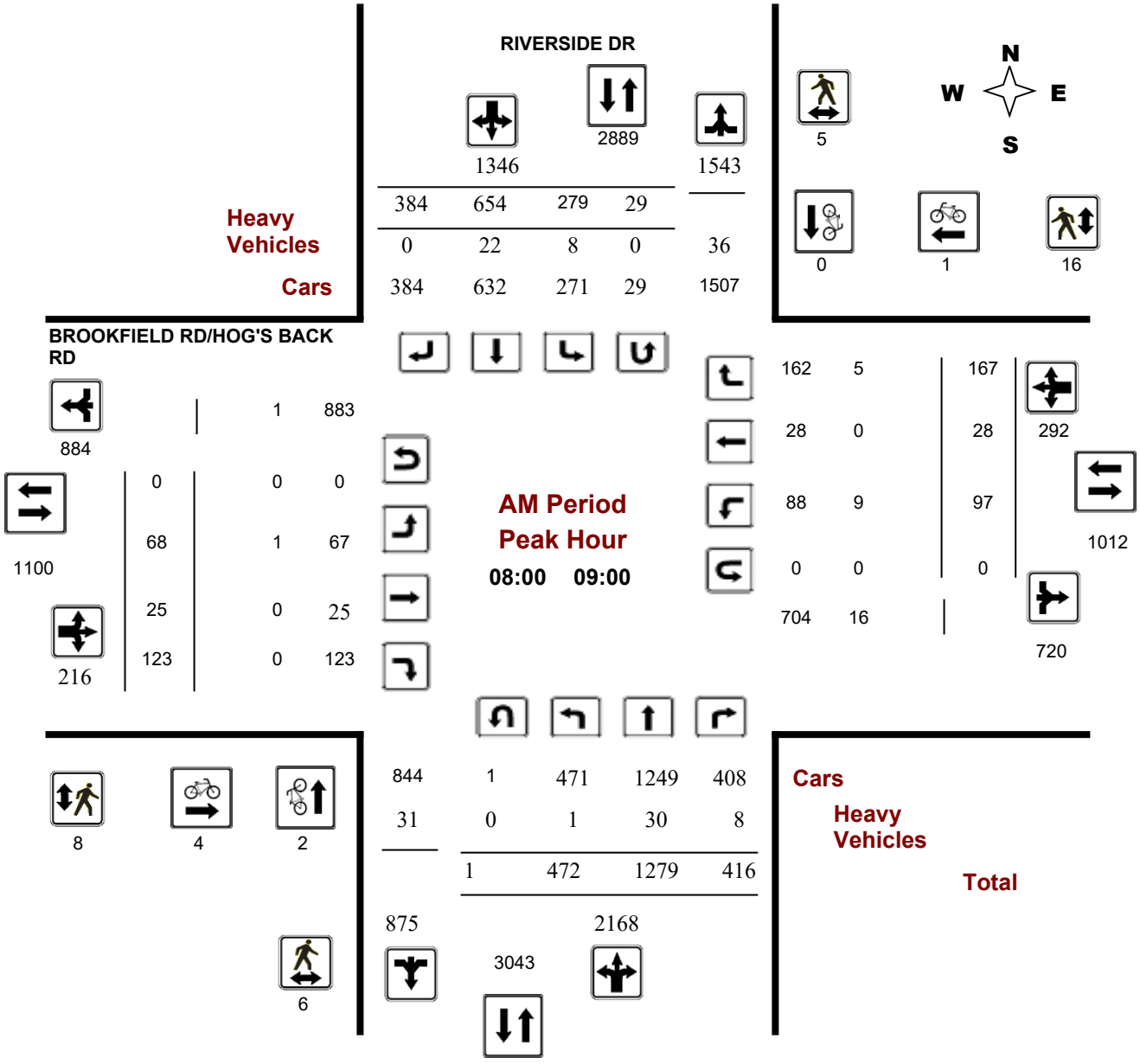
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## RIVERSIDE DR @ BROOKFIELD RD/HOG'S BACK RD

**Survey Date:** Tuesday, March 03, 2020 **WO No:** 39649

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




**Comments**

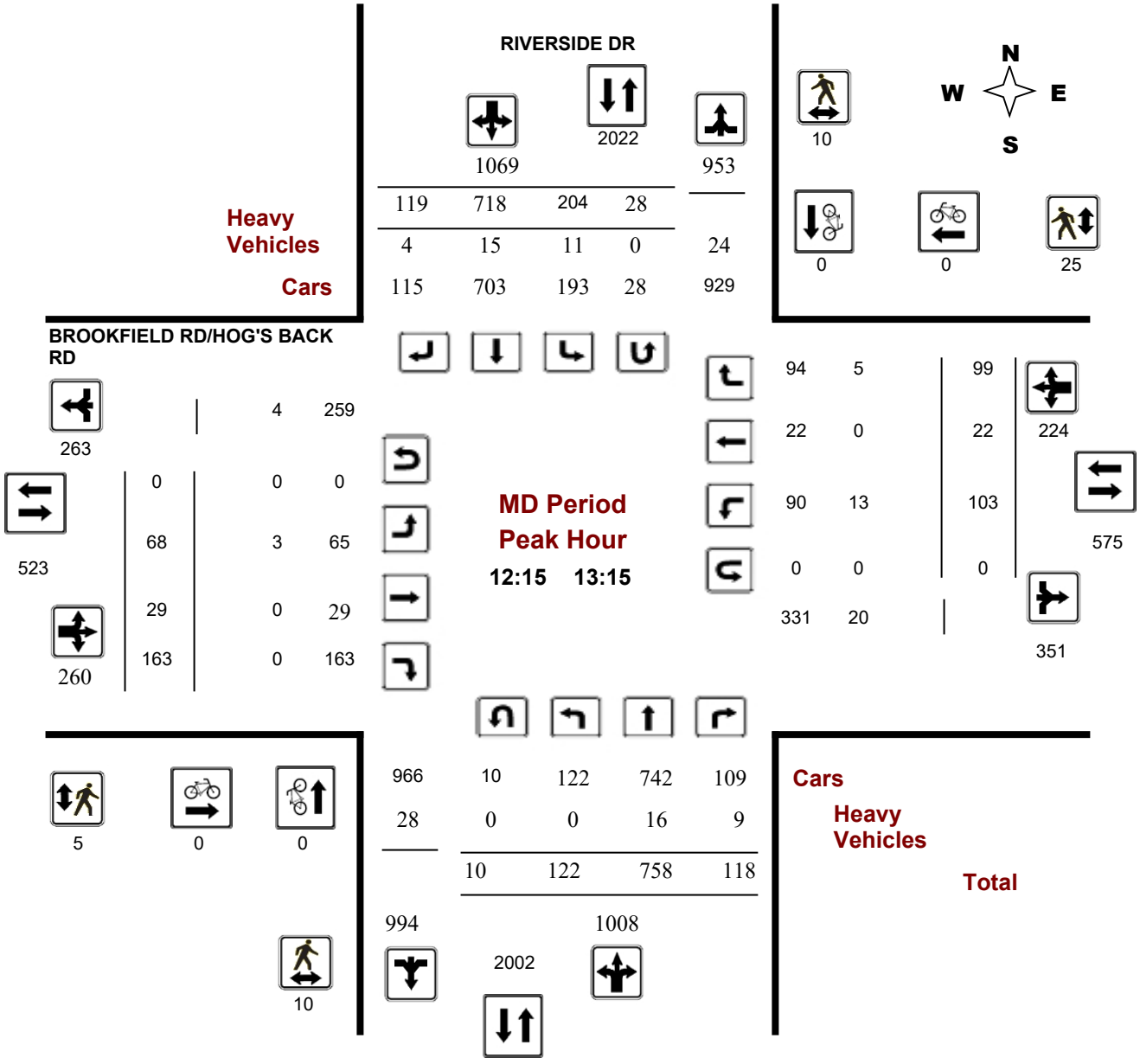
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## RIVERSIDE DR @ BROOKFIELD RD/HOG'S BACK RD

**Survey Date:** Tuesday, March 03, 2020 **WO No:** 39649

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




**Comments**

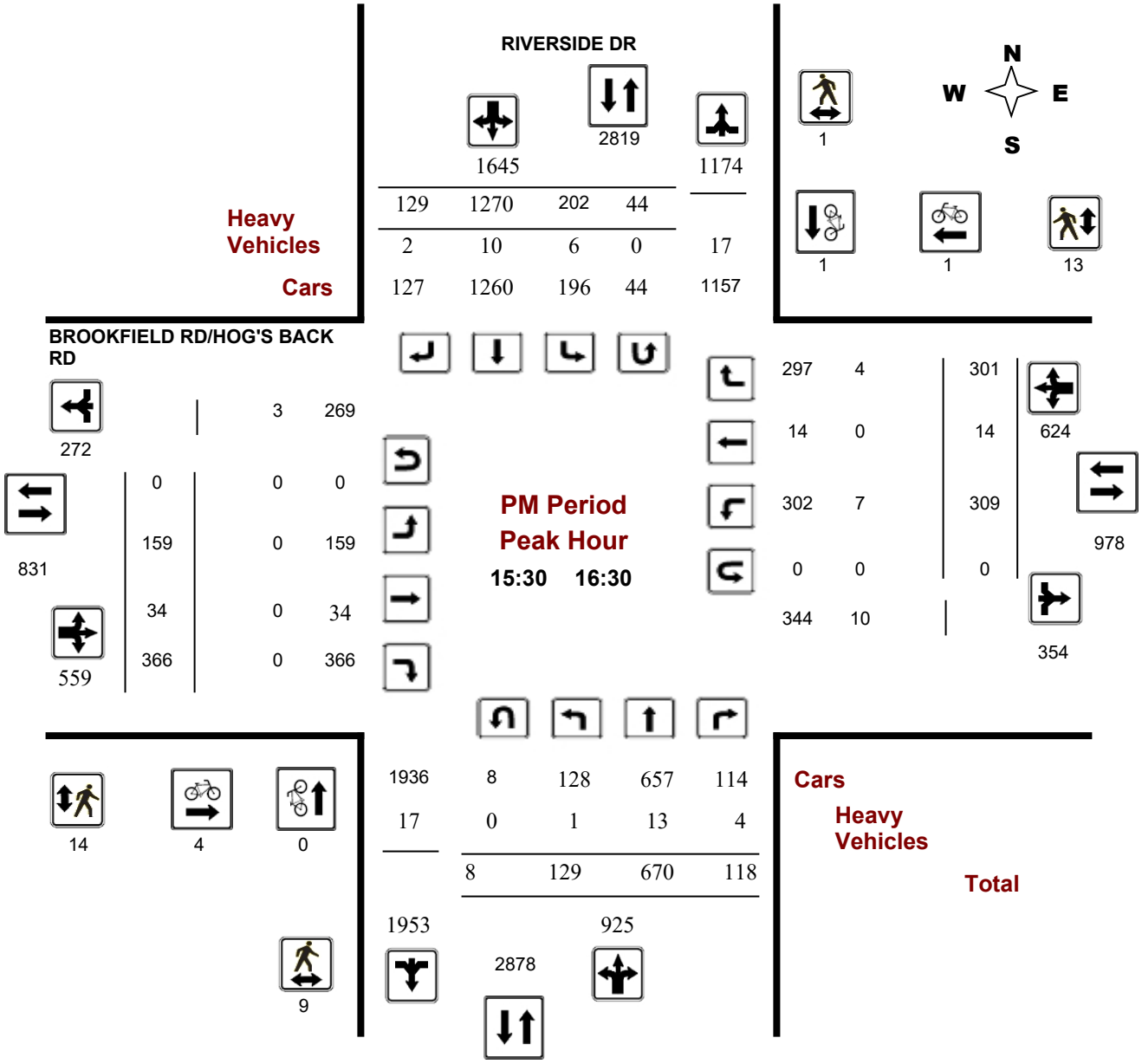
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## RIVERSIDE DR @ BROOKFIELD RD/HOG'S BACK RD

**Survey Date:** Tuesday, March 03, 2020 **WO No:** 39649

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




**Comments**

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIVERSIDE DR @ BROOKFIELD RD/HOG'S BACK RD

**Survey Date:** Tuesday, March 03, 2020 **WO No:** 39649

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

## Full Study Summary (8 HR Standard)

**Survey Date:** Tuesday, March 03, 2020

**Total Observed U-Turns**

Northbound: 57 Southbound: 305

Eastbound: 1 Westbound: 0

**AADT Factor**

1.00

| | RIVERSIDE DR | | | | | | | | | BROOKFIELD RD/HOG'S BACK RD | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Northbound | | | | Southbound | | | | | Eastbound | | | | Westbound | | | | | |
| Period | LT | ST | RT | **NB TOT** | LT | ST | RT | **SB TOT** | **STR TOT** | LT | ST | RT | **EB TOT** | LT | ST | RT | **WB TOT** | **STR TOT** | **Grand Total** |
| 07:00 08:00 | 382 | 1342 | 397 | **2121** | 193 | 631 | 169 | **993** | **3114** | 22 | 4 | 83 | **109** | 64 | 22 | 111 | **197** | **306** | **3420** |
| 08:00 09:00 | 472 | 1279 | 416 | **2167** | 279 | 654 | 384 | **1317** | **3484** | 68 | 25 | 123 | **216** | 97 | 28 | 167 | **292** | **508** | **3992** |
| 09:00 10:00 | 261 | 1034 | 210 | **1505** | 167 | 634 | 186 | **987** | **2492** | 47 | 13 | 95 | **155** | 76 | 15 | 73 | **164** | **319** | **2811** |
| 11:30 12:30 | 108 | 756 | 114 | **978** | 155 | 714 | 99 | **968** | **1946** | 118 | 23 | 168 | **309** | 107 | 13 | 118 | **238** | **547** | **2493** |
| 12:30 13:30 | 136 | 736 | 110 | **982** | 204 | 719 | 116 | **1039** | **2021** | 76 | 29 | 177 | **282** | 98 | 20 | 101 | **219** | **501** | **2522** |
| 15:00 16:00 | 142 | 713 | 129 | **984** | 253 | 1245 | 102 | **1600** | **2584** | 110 | 18 | 323 | **451** | 310 | 14 | 296 | **620** | **1071** | **3655** |
| 16:00 17:00 | 111 | 624 | 117 | **852** | 197 | 1244 | 141 | **1582** | **2434** | 171 | 38 | 383 | **592** | 306 | 20 | 260 | **586** | **1178** | **3612** |
| 17:00 18:00 | 225 | 754 | 81 | **1060** | 201 | 1094 | 215 | **1510** | **2570** | 180 | 29 | 377 | **586** | 248 | 26 | 178 | **452** | **1038** | **3608** |
| **Sub Total** | 1837 | 7238 | 1574 | **10649** | 1649 | 6935 | 1412 | **9996** | **20645** | 792 | 179 | 1729 | **2700** | 1306 | 158 | 1304 | **2768** | **5468** | **26113** |
| **U Turns** | | | | **57** | | | | **305** | **362** | | | | **1** | | | | **0** | **1** | **363** |
| **Total** | 1837 | 7238 | 1574 | **10706** | 1649 | 6935 | 1412 | **10301** | **21007** | 792 | 179 | 1729 | **2701** | 1306 | 158 | 1304 | **2768** | **5469** | **26476** |
| **EQ 12Hr** | 2553 | 10061 | 2188 | **14881** | 2292 | 9640 | 1963 | **14318** | **29200** | 1101 | 249 | 2403 | **3754** | 1815 | 220 | 1813 | **3848** | **7602** | **36802** |
| Note: These values are calculated by multiplying the totals by the appropriate expansion factor. | | | | | | | | | | | | | | **1.39** | | | | | |
| **AVG 12Hr** | 2406 | 9482 | 2062 | **14025** | 2160 | 9085 | 1850 | **13494** | **29200** | 1038 | 234 | 2265 | **3538** | 1711 | 207 | 1708 | **3626** | **7602** | **36802** |
| Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor. | | | | | | | | | | | | | | **1** | | | | | |
| **AVG 24Hr** | 3152 | 12421 | 2701 | **18373** | 2830 | 11901 | 2423 | **17678** | **36051** | 1359 | 307 | 2967 | **4635** | 2241 | 271 | 2238 | **4750** | **9385** | **45436** |
| Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor. | | | | | | | | | | | | | | **1.31** | | | | | |

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

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIVERSIDE DR @ BROOKFIELD RD/HOG'S BACK RD

**Survey Date:** Tuesday, March 03, 2020 **WO No:** 39649

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

## Full Study 15 Minute Increments

| | | RIVERSIDE DR | | | | | | | | | BROOKFIELD RD/HOG'S BACK RD | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Northbound | | | | Southbound | | | | | Eastbound | | | | Westbound | | | | | |
| Time Period | | LT | ST | RT | N TOT | LT | ST | RT | S TOT | STR TOT | LT | ST | RT | E TOT | LT | ST | RT | W TOT | STR TOT | Grand Total |
| 07:00 | 07:15 | 56 | 308 | 86 | 450 | 36 | 135 | 19 | 196 | 12 | 2 | 1 | 19 | 22 | 12 | 3 | 24 | 39 | 12 | 707 |
| 07:15 | 07:30 | 89 | 364 | 93 | 546 | 52 | 149 | 33 | 243 | 8 | 2 | 0 | 21 | 23 | 17 | 3 | 29 | 49 | 8 | 861 |
| 07:30 | 07:45 | 100 | 303 | 104 | 507 | 47 | 205 | 57 | 319 | 13 | 11 | 3 | 23 | 37 | 16 | 7 | 29 | 52 | 13 | 915 |
| 07:45 | 08:00 | 137 | 367 | 114 | 620 | 58 | 142 | 60 | 268 | 8 | 7 | 0 | 20 | 27 | 19 | 9 | 29 | 57 | 8 | 972 |
| 08:00 | 08:15 | 130 | 306 | 94 | 530 | 74 | 162 | 112 | 353 | 16 | 12 | 3 | 29 | 44 | 19 | 7 | 40 | 66 | 16 | 993 |
| 08:15 | 08:30 | 131 | 307 | 106 | 544 | 63 | 163 | 117 | 352 | 24 | 19 | 8 | 30 | 57 | 24 | 14 | 31 | 69 | 24 | 1022 |
| 08:30 | 08:45 | 109 | 304 | 108 | 521 | 69 | 166 | 92 | 335 | 14 | 16 | 9 | 24 | 49 | 21 | 2 | 42 | 65 | 14 | 970 |
| 08:45 | 09:00 | 102 | 362 | 108 | 573 | 73 | 163 | 63 | 306 | 15 | 21 | 5 | 40 | 66 | 33 | 5 | 54 | 92 | 15 | 1037 |
| 09:00 | 09:15 | 66 | 251 | 76 | 393 | 52 | 175 | 35 | 265 | 20 | 10 | 3 | 36 | 49 | 21 | 5 | 22 | 48 | 20 | 755 |
| 09:15 | 09:30 | 73 | 302 | 55 | 431 | 49 | 166 | 48 | 272 | 19 | 8 | 4 | 23 | 35 | 16 | 3 | 22 | 41 | 19 | 779 |
| 09:30 | 09:45 | 57 | 234 | 44 | 336 | 31 | 139 | 48 | 232 | 11 | 13 | 4 | 22 | 39 | 22 | 3 | 16 | 41 | 11 | 648 |
| 09:45 | 10:00 | 65 | 247 | 35 | 347 | 35 | 154 | 55 | 251 | 18 | 16 | 2 | 14 | 32 | 17 | 4 | 13 | 34 | 18 | 664 |
| 11:30 | 11:45 | 38 | 185 | 31 | 255 | 33 | 182 | 30 | 251 | 16 | 46 | 8 | 58 | 112 | 26 | 4 | 32 | 62 | 16 | 680 |
| 11:45 | 12:00 | 30 | 186 | 27 | 243 | 39 | 192 | 23 | 258 | 11 | 46 | 5 | 55 | 106 | 28 | 2 | 35 | 65 | 11 | 672 |
| 12:00 | 12:15 | 20 | 188 | 22 | 233 | 35 | 170 | 18 | 227 | 10 | 17 | 6 | 30 | 54 | 23 | 1 | 25 | 49 | 10 | 563 |
| 12:15 | 12:30 | 20 | 197 | 34 | 254 | 48 | 170 | 28 | 255 | 15 | 9 | 4 | 25 | 38 | 30 | 6 | 26 | 62 | 15 | 609 |
| 12:30 | 12:45 | 28 | 195 | 28 | 254 | 49 | 178 | 34 | 266 | 10 | 14 | 4 | 37 | 55 | 22 | 6 | 25 | 53 | 10 | 628 |
| 12:45 | 13:00 | 38 | 175 | 30 | 245 | 53 | 201 | 33 | 292 | 17 | 15 | 8 | 45 | 68 | 29 | 4 | 24 | 57 | 17 | 662 |
| 13:00 | 13:15 | 36 | 191 | 26 | 255 | 54 | 169 | 24 | 256 | 13 | 30 | 13 | 56 | 99 | 22 | 6 | 24 | 52 | 13 | 662 |
| 13:15 | 13:30 | 34 | 175 | 26 | 237 | 48 | 171 | 25 | 250 | 17 | 17 | 4 | 39 | 60 | 25 | 4 | 28 | 57 | 17 | 604 |
| 15:00 | 15:15 | 35 | 206 | 40 | 286 | 84 | 282 | 23 | 400 | 12 | 19 | 2 | 69 | 90 | 86 | 1 | 84 | 171 | 12 | 947 |
| 15:15 | 15:30 | 32 | 158 | 34 | 227 | 66 | 346 | 20 | 442 | 9 | 22 | 5 | 83 | 110 | 81 | 4 | 70 | 155 | 9 | 934 |
| 15:30 | 15:45 | 39 | 176 | 29 | 244 | 51 | 334 | 23 | 415 | 10 | 26 | 7 | 90 | 123 | 71 | 4 | 77 | 152 | 10 | 934 |
| 15:45 | 16:00 | 36 | 173 | 26 | 238 | 52 | 283 | 36 | 377 | 11 | 43 | 4 | 81 | 128 | 72 | 5 | 65 | 142 | 11 | 885 |
| 16:00 | 16:15 | 29 | 176 | 30 | 239 | 59 | 286 | 31 | 393 | 9 | 41 | 13 | 110 | 164 | 85 | 3 | 85 | 173 | 9 | 969 |
| 16:15 | 16:30 | 25 | 145 | 33 | 204 | 40 | 367 | 39 | 460 | 6 | 49 | 10 | 85 | 144 | 81 | 2 | 74 | 157 | 6 | 965 |
| 16:30 | 16:45 | 32 | 163 | 24 | 226 | 56 | 288 | 40 | 404 | 6 | 47 | 10 | 107 | 164 | 68 | 4 | 52 | 124 | 6 | 918 |
| 16:45 | 17:00 | 25 | 140 | 30 | 198 | 42 | 303 | 31 | 384 | 1 | 34 | 5 | 81 | 120 | 72 | 11 | 49 | 132 | 1 | 834 |
| 17:00 | 17:15 | 45 | 204 | 20 | 273 | 39 | 254 | 40 | 355 | 6 | 45 | 1 | 105 | 151 | 79 | 6 | 62 | 147 | 6 | 926 |
| 17:15 | 17:30 | 50 | 206 | 18 | 277 | 45 | 293 | 52 | 411 | 4 | 44 | 10 | 83 | 137 | 64 | 6 | 56 | 126 | 4 | 951 |
| 17:30 | 17:45 | 76 | 209 | 25 | 313 | 50 | 257 | 52 | 372 | 5 | 44 | 9 | 119 | 172 | 58 | 2 | 36 | 96 | 5 | 953 |
| 17:45 | 18:00 | 54 | 135 | 18 | 207 | 67 | 290 | 71 | 441 | 2 | 47 | 9 | 70 | 126 | 47 | 12 | 24 | 83 | 2 | 857 |
| Total: | | 1837 | 7238 | 1574 | 1070 | 1649 | 6935 | 1412 | 10301 | 368 | 792 | 179 | 1729 | 2701 | 1306 | 158 | 1304 | 2768 | 368 | 26,476 |

Note: U-Turns are included in Totals.

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIVERSIDE DR @ BROOKFIELD RD/HOG'S BACK RD

**Survey Date:** Tuesday, March 03, 2020 **WO No:** 39649

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

### Full Study Cyclist Volume

| Time Period | | RIVERSIDE DR | | | BROOKFIELD RD/HOG'S BACK RD | | | |
|---|---|---|---|---|---|---|---|---|
| | | Northbound | Southbound | Street Total | Eastbound | Westbound | Street Total | Grand Total |
| 07:00 | 07:15 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 07:15 | 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 | 07:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:45 | 08:00 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 08:00 | 08:15 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 08:15 | 08:30 | 1 | 0 | 1 | 1 | 0 | 1 | 2 |
| 08:30 | 08:45 | 1 | 0 | 1 | 2 | 0 | 2 | 3 |
| 08:45 | 09:00 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 09:00 | 09:15 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 09:15 | 09:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:30 | 09:45 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 09:45 | 10:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 | 11:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 | 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 12:15 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 12:15 | 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | 15:15 | 1 | 1 | 2 | 0 | 0 | 0 | 2 |
| 15:15 | 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 16:00 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 16:00 | 16:15 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 16:15 | 16:30 | 0 | 1 | 1 | 2 | 1 | 3 | 4 |
| 16:30 | 16:45 | 0 | 1 | 1 | 0 | 1 | 1 | 2 |
| 16:45 | 17:00 | 0 | 2 | 2 | 2 | 1 | 3 | 5 |
| 17:00 | 17:15 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 17:15 | 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:30 | 17:45 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 17:45 | 18:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | | 3 | 8 | **11** | 11 | 7 | 18 | 29 |

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIVERSIDE DR @ BROOKFIELD RD/HOG'S BACK RD

**Survey Date:** Tuesday, March 03, 2020 **WO No:** 39649

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

### Full Study Pedestrian Volume

| | RIVERSIDE DR | | | BROOKFIELD RD/HOG'S BACK RD | | | |
|---|---|---|---|---|---|---|---|
| Time Period | NB Approach (E or W Crossing) | SB Approach (E or W Crossing) | **Total** | EB Approach (N or S Crossing) | WB Approach (N or S Crossing) | **Total** | **Grand Total** |
| 07:00 07:15 | 0 | 2 | **2** | 0 | 2 | **2** | **4** |
| 07:15 07:30 | 0 | 1 | **1** | 2 | 3 | **5** | **6** |
| 07:30 07:45 | 2 | 2 | **4** | 1 | 4 | **5** | **9** |
| 07:45 08:00 | 1 | 1 | **2** | 1 | 3 | **4** | **6** |
| 08:00 08:15 | 1 | 2 | **3** | 4 | 4 | **8** | **11** |
| 08:15 08:30 | 1 | 2 | **3** | 4 | 3 | **7** | **10** |
| 08:30 08:45 | 3 | 0 | **3** | 0 | 5 | **5** | **8** |
| 08:45 09:00 | 1 | 1 | **2** | 0 | 4 | **4** | **6** |
| 09:00 09:15 | 3 | 2 | **5** | 3 | 6 | **9** | **14** |
| 09:15 09:30 | 2 | 1 | **3** | 0 | 3 | **3** | **6** |
| 09:30 09:45 | 1 | 1 | **2** | 1 | 4 | **5** | **7** |
| 09:45 10:00 | 0 | 1 | **1** | 0 | 4 | **4** | **5** |
| 11:30 11:45 | 7 | 3 | **10** | 8 | 0 | **8** | **18** |
| 11:45 12:00 | 5 | 2 | **7** | 1 | 2 | **3** | **10** |
| 12:00 12:15 | 2 | 6 | **8** | 1 | 5 | **6** | **14** |
| 12:15 12:30 | 5 | 5 | **10** | 4 | 13 | **17** | **27** |
| 12:30 12:45 | 0 | 1 | **1** | 0 | 6 | **6** | **7** |
| 12:45 13:00 | 3 | 3 | **6** | 0 | 5 | **5** | **11** |
| 13:00 13:15 | 2 | 1 | **3** | 1 | 1 | **2** | **5** |
| 13:15 13:30 | 2 | 1 | **3** | 1 | 5 | **6** | **9** |
| 15:00 15:15 | 2 | 0 | **2** | 0 | 7 | **7** | **9** |
| 15:15 15:30 | 7 | 0 | **7** | 1 | 2 | **3** | **10** |
| 15:30 15:45 | 3 | 0 | **3** | 3 | 4 | **7** | **10** |
| 15:45 16:00 | 1 | 0 | **1** | 1 | 1 | **2** | **3** |
| 16:00 16:15 | 3 | 1 | **4** | 5 | 4 | **9** | **13** |
| 16:15 16:30 | 2 | 0 | **2** | 5 | 4 | **9** | **11** |
| 16:30 16:45 | 2 | 1 | **3** | 2 | 6 | **8** | **11** |
| 16:45 17:00 | 0 | 3 | **3** | 2 | 4 | **6** | **9** |
| 17:00 17:15 | 2 | 0 | **2** | 2 | 11 | **13** | **15** |
| 17:15 17:30 | 2 | 1 | **3** | 1 | 5 | **6** | **9** |
| 17:30 17:45 | 4 | 0 | **4** | 2 | 1 | **3** | **7** |
| 17:45 18:00 | 1 | 0 | **1** | 0 | 0 | **0** | **1** |
| Total ..... | 70 | 44 | **114** | 56 | 131 | **187** | **301** |

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIVERSIDE DR @ BROOKFIELD RD/HOG'S BACK RD

**Survey Date:** Tuesday, March 03, 2020 **WO No:** 39649

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

## Full Study Heavy Vehicles

| | | RIVERSIDE DR | | | | | | | | | BROOKFIELD RD/HOG'S BACK RD | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Northbound | | | | Southbound | | | | | Eastbound | | | | Westbound | | | | | |
| Time Period | | LT | ST | RT | N TOT | LT | ST | RT | S TOT | STR TOT | LT | ST | RT | E TOT | LT | ST | RT | W TOT | STR TOT | Grand Total |
| 07:00 | 07:15 | 1 | 1 | 2 | **4** | 0 | 7 | 1 | **8** | **12** | 0 | 0 | 1 | **1** | 1 | 0 | 0 | **1** | **2** | **14** |
| 07:15 | 07:30 | 0 | 4 | 0 | **4** | 2 | 2 | 0 | **4** | **8** | 0 | 0 | 0 | **0** | 5 | 1 | 1 | **7** | **7** | **15** |
| 07:30 | 07:45 | 0 | 2 | 5 | **7** | 4 | 2 | 0 | **6** | **13** | 4 | 0 | 1 | **5** | 1 | 0 | 0 | **1** | **6** | **19** |
| 07:45 | 08:00 | 0 | 4 | 3 | **7** | 0 | 1 | 0 | **1** | **8** | 0 | 0 | 0 | **0** | 4 | 0 | 1 | **5** | **5** | **13** |
| 08:00 | 08:15 | 0 | 7 | 1 | **8** | 0 | 8 | 0 | **8** | **16** | 1 | 0 | 0 | **1** | 2 | 0 | 2 | **4** | **5** | **21** |
| 08:15 | 08:30 | 1 | 11 | 2 | **14** | 3 | 7 | 0 | **10** | **24** | 0 | 0 | 0 | **0** | 2 | 0 | 1 | **3** | **3** | **27** |
| 08:30 | 08:45 | 0 | 5 | 3 | **8** | 1 | 5 | 0 | **6** | **14** | 0 | 0 | 0 | **0** | 2 | 0 | 0 | **2** | **2** | **16** |
| 08:45 | 09:00 | 0 | 7 | 2 | **9** | 4 | 2 | 0 | **6** | **15** | 0 | 0 | 0 | **0** | 3 | 0 | 2 | **5** | **5** | **20** |
| 09:00 | 09:15 | 0 | 4 | 5 | **9** | 3 | 6 | 2 | **11** | **20** | 1 | 0 | 1 | **2** | 2 | 0 | 1 | **3** | **5** | **25** |
| 09:15 | 09:30 | 0 | 7 | 3 | **10** | 0 | 3 | 6 | **9** | **19** | 2 | 0 | 0 | **2** | 2 | 0 | 1 | **3** | **5** | **24** |
| 09:30 | 09:45 | 0 | 5 | 2 | **7** | 1 | 3 | 0 | **4** | **11** | 2 | 0 | 0 | **2** | 2 | 0 | 3 | **5** | **7** | **18** |
| 09:45 | 10:00 | 0 | 7 | 3 | **10** | 2 | 6 | 0 | **8** | **18** | 0 | 0 | 0 | **0** | 1 | 0 | 0 | **1** | **1** | **19** |
| 11:30 | 11:45 | 1 | 6 | 3 | **10** | 0 | 6 | 0 | **6** | **16** | 0 | 0 | 0 | **0** | 2 | 0 | 3 | **5** | **5** | **21** |
| 11:45 | 12:00 | 0 | 4 | 4 | **8** | 0 | 1 | 2 | **3** | **11** | 0 | 0 | 1 | **1** | 2 | 0 | 0 | **2** | **3** | **14** |
| 12:00 | 12:15 | 0 | 4 | 2 | **6** | 0 | 4 | 0 | **4** | **10** | 2 | 0 | 0 | **2** | 3 | 0 | 1 | **4** | **6** | **16** |
| 12:15 | 12:30 | 0 | 6 | 1 | **7** | 2 | 5 | 1 | **8** | **15** | 0 | 0 | 0 | **0** | 4 | 0 | 1 | **5** | **5** | **20** |
| 12:30 | 12:45 | 0 | 2 | 2 | **4** | 1 | 3 | 2 | **6** | **10** | 2 | 0 | 0 | **2** | 3 | 0 | 0 | **3** | **5** | **15** |
| 12:45 | 13:00 | 0 | 3 | 3 | **6** | 6 | 4 | 1 | **11** | **17** | 0 | 0 | 0 | **0** | 2 | 0 | 0 | **2** | **2** | **19** |
| 13:00 | 13:15 | 0 | 5 | 3 | **8** | 2 | 3 | 0 | **5** | **13** | 1 | 0 | 0 | **1** | 4 | 0 | 4 | **8** | **9** | **22** |
| 13:15 | 13:30 | 0 | 3 | 4 | **7** | 2 | 7 | 1 | **10** | **17** | 0 | 0 | 0 | **0** | 3 | 0 | 2 | **5** | **5** | **22** |
| 15:00 | 15:15 | 0 | 2 | 4 | **6** | 4 | 2 | 0 | **6** | **12** | 1 | 1 | 1 | **3** | 3 | 0 | 2 | **5** | **8** | **20** |
| 15:15 | 15:30 | 0 | 4 | 2 | **6** | 0 | 2 | 1 | **3** | **9** | 1 | 0 | 0 | **1** | 2 | 0 | 1 | **3** | **4** | **13** |
| 15:30 | 15:45 | 0 | 5 | 2 | **7** | 3 | 0 | 0 | **3** | **10** | 0 | 0 | 0 | **0** | 3 | 0 | 1 | **4** | **4** | **14** |
| 15:45 | 16:00 | 1 | 1 | 2 | **4** | 2 | 4 | 1 | **7** | **11** | 0 | 0 | 0 | **0** | 3 | 0 | 1 | **4** | **4** | **15** |
| 16:00 | 16:15 | 0 | 3 | 0 | **3** | 1 | 4 | 1 | **6** | **9** | 0 | 0 | 0 | **0** | 1 | 0 | 1 | **2** | **2** | **11** |
| 16:15 | 16:30 | 0 | 4 | 0 | **4** | 0 | 2 | 0 | **2** | **6** | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | **7** |
| 16:30 | 16:45 | 0 | 3 | 0 | **3** | 0 | 2 | 1 | **3** | **6** | 0 | 0 | 0 | **0** | 0 | 0 | 2 | **2** | **2** | **8** |
| 16:45 | 17:00 | 0 | 1 | 0 | **1** | 0 | 0 | 0 | **0** | **1** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | **0** | **1** |
| 17:00 | 17:15 | 0 | 0 | 1 | **1** | 0 | 5 | 0 | **5** | **6** | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | **7** |
| 17:15 | 17:30 | 1 | 1 | 0 | **2** | 1 | 1 | 0 | **2** | **4** | 0 | 0 | 1 | **1** | 0 | 0 | 1 | **1** | **2** | **6** |
| 17:30 | 17:45 | 0 | 3 | 0 | **3** | 0 | 2 | 0 | **2** | **5** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | **0** | **5** |
| 17:45 | 18:00 | 0 | 1 | 0 | **1** | 0 | 1 | 0 | **1** | **2** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | **0** | **2** |
| Total: | None | 5 | 125 | 64 | **194** | 44 | 110 | 20 | **174** | **368** | 17 | 1 | 6 | **24** | 62 | 1 | 34 | **97** | **121** | **489** |

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## RIVERSIDE DR @ BROOKFIELD RD/HOG'S BACK RD

**Survey Date:** Tuesday, March 03, 2020 **WO No:** 39649

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

### Full Study 15 Minute U-Turn Total

| | | RIVERSIDE DR | | BROOKFIELD RD/HOG'S BACK RD | | |
|---|---|---|---|---|---|---|
| Time Period | | Northbound U-Turn Total | Southbound U-Turn Total | Eastbound U-Turn Total | Westbound U-Turn Total | Total |
| 07:00 | 07:15 | 0 | 6 | 0 | 0 | 6 |
| 07:15 | 07:30 | 0 | 9 | 0 | 0 | 9 |
| 07:30 | 07:45 | 0 | 10 | 0 | 0 | 10 |
| 07:45 | 08:00 | 2 | 8 | 0 | 0 | 10 |
| 08:00 | 08:15 | 0 | 5 | 0 | 0 | 5 |
| 08:15 | 08:30 | 0 | 9 | 0 | 0 | 9 |
| 08:30 | 08:45 | 0 | 8 | 0 | 0 | 8 |
| 08:45 | 09:00 | 1 | 7 | 0 | 0 | 8 |
| 09:00 | 09:15 | 0 | 3 | 0 | 0 | 3 |
| 09:15 | 09:30 | 1 | 9 | 0 | 0 | 10 |
| 09:30 | 09:45 | 1 | 14 | 0 | 0 | 15 |
| 09:45 | 10:00 | 0 | 7 | 0 | 0 | 7 |
| 11:30 | 11:45 | 1 | 6 | 0 | 0 | 7 |
| 11:45 | 12:00 | 0 | 4 | 0 | 0 | 4 |
| 12:00 | 12:15 | 3 | 4 | 1 | 0 | 8 |
| 12:15 | 12:30 | 3 | 9 | 0 | 0 | 12 |
| 12:30 | 12:45 | 3 | 5 | 0 | 0 | 8 |
| 12:45 | 13:00 | 2 | 5 | 0 | 0 | 7 |
| 13:00 | 13:15 | 2 | 9 | 0 | 0 | 11 |
| 13:15 | 13:30 | 2 | 6 | 0 | 0 | 8 |
| 15:00 | 15:15 | 5 | 11 | 0 | 0 | 16 |
| 15:15 | 15:30 | 3 | 10 | 0 | 0 | 13 |
| 15:30 | 15:45 | 0 | 7 | 0 | 0 | 7 |
| 15:45 | 16:00 | 3 | 6 | 0 | 0 | 9 |
| 16:00 | 16:15 | 4 | 17 | 0 | 0 | 21 |
| 16:15 | 16:30 | 1 | 14 | 0 | 0 | 15 |
| 16:30 | 16:45 | 7 | 20 | 0 | 0 | 27 |
| 16:45 | 17:00 | 3 | 8 | 0 | 0 | 11 |
| 17:00 | 17:15 | 4 | 22 | 0 | 0 | 26 |
| 17:15 | 17:30 | 3 | 21 | 0 | 0 | 24 |
| 17:30 | 17:45 | 3 | 13 | 0 | 0 | 16 |
| 17:45 | 18:00 | 0 | 13 | 0 | 0 | 13 |
| Total | | 57 | 305 | 1 | 0 | 363 |

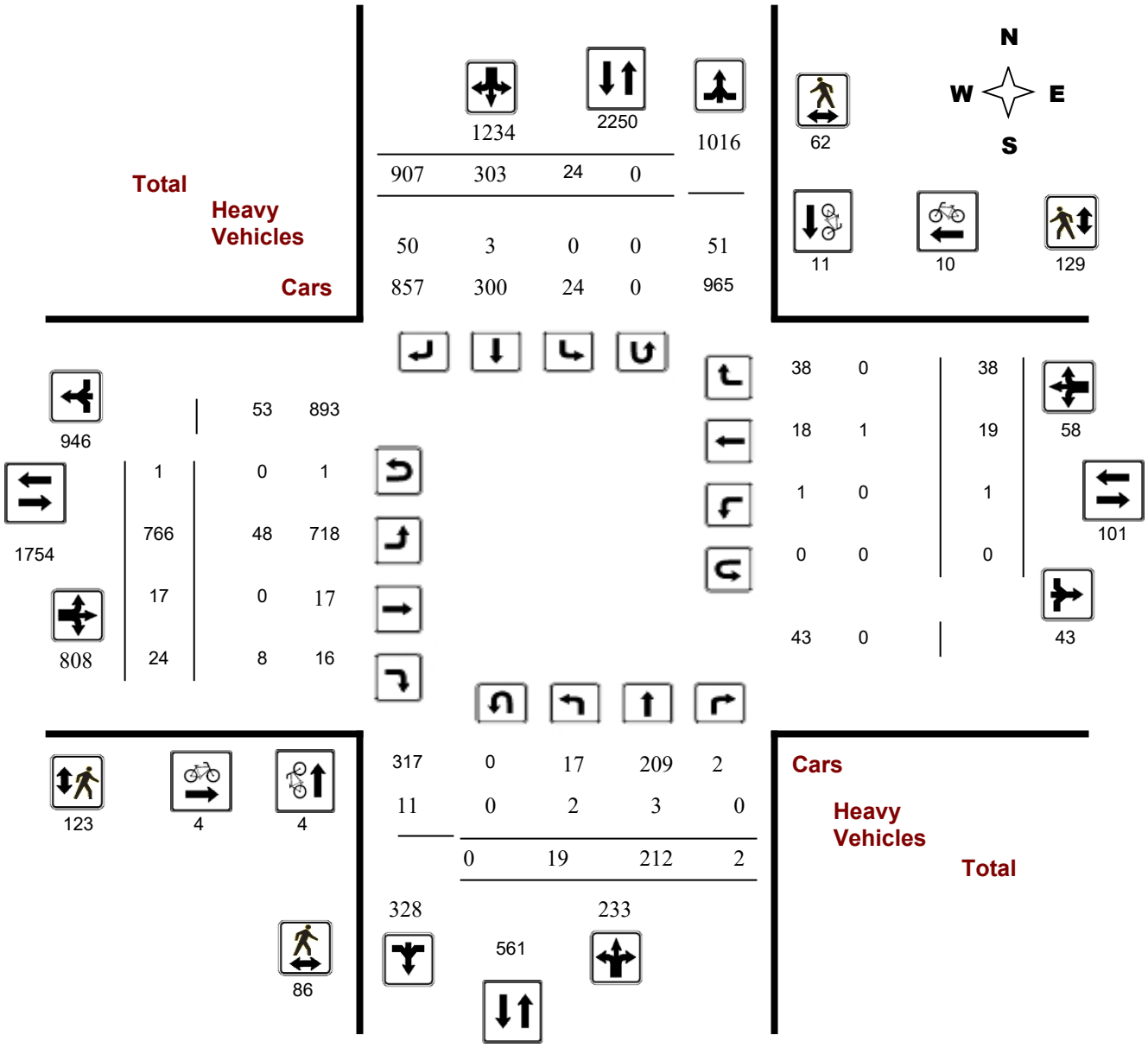
# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## SPRINGLAND DR N @ FLANNERY DR N

**Survey Date:** Tuesday, November 26, 2019
**Start Time:** 07:00
**WO No:** 39107
**Device:** Miovision

### Full Study Diagram



# Transportation Services - Traffic Services

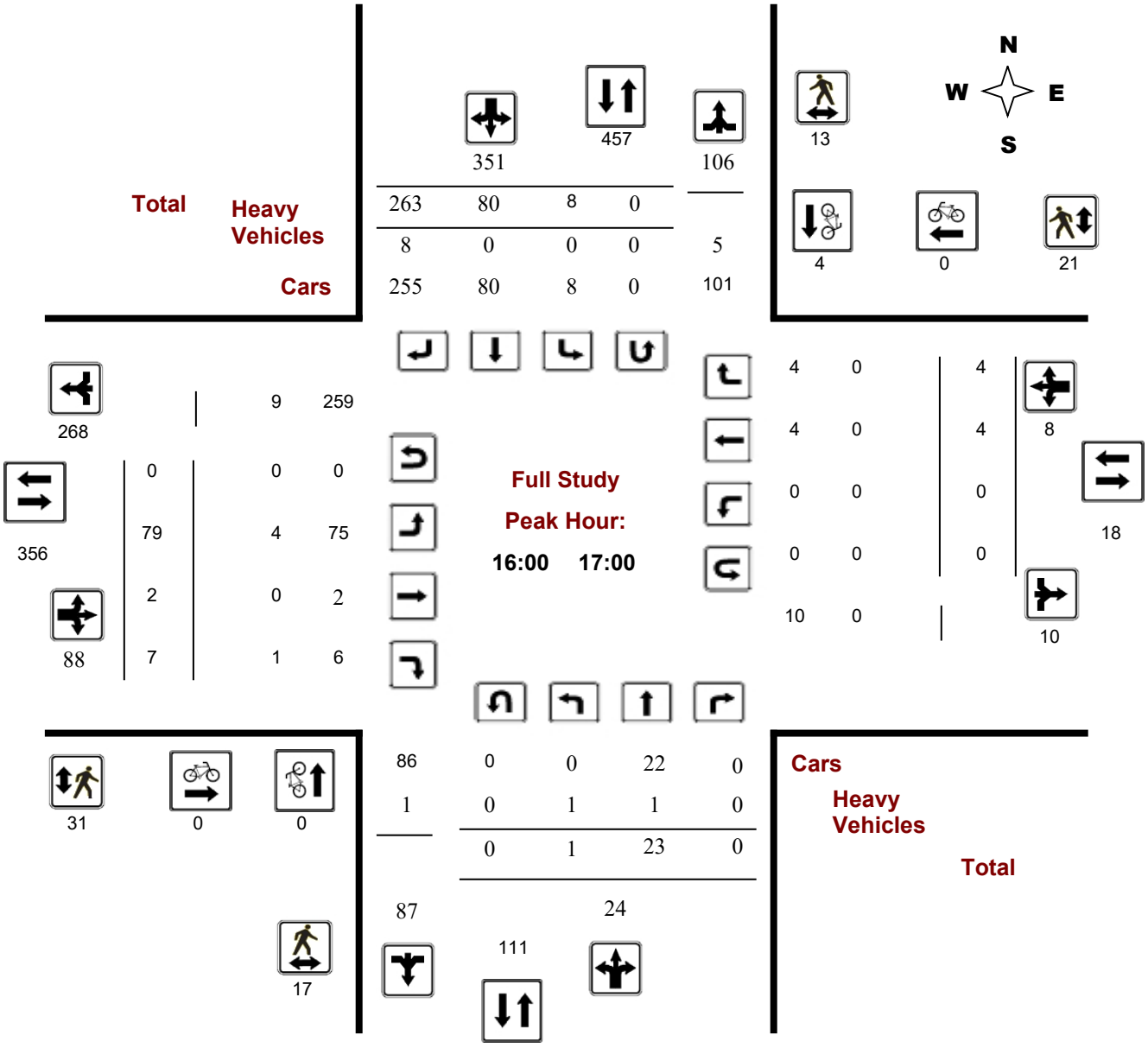
## Turning Movement Count - Study Results

## SPRINGLAND DR N @ FLANNERY DR N

**Survey Date:** Tuesday, November 26, 2019 **WO No:** 39107

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

### Full Study Peak Hour Diagram



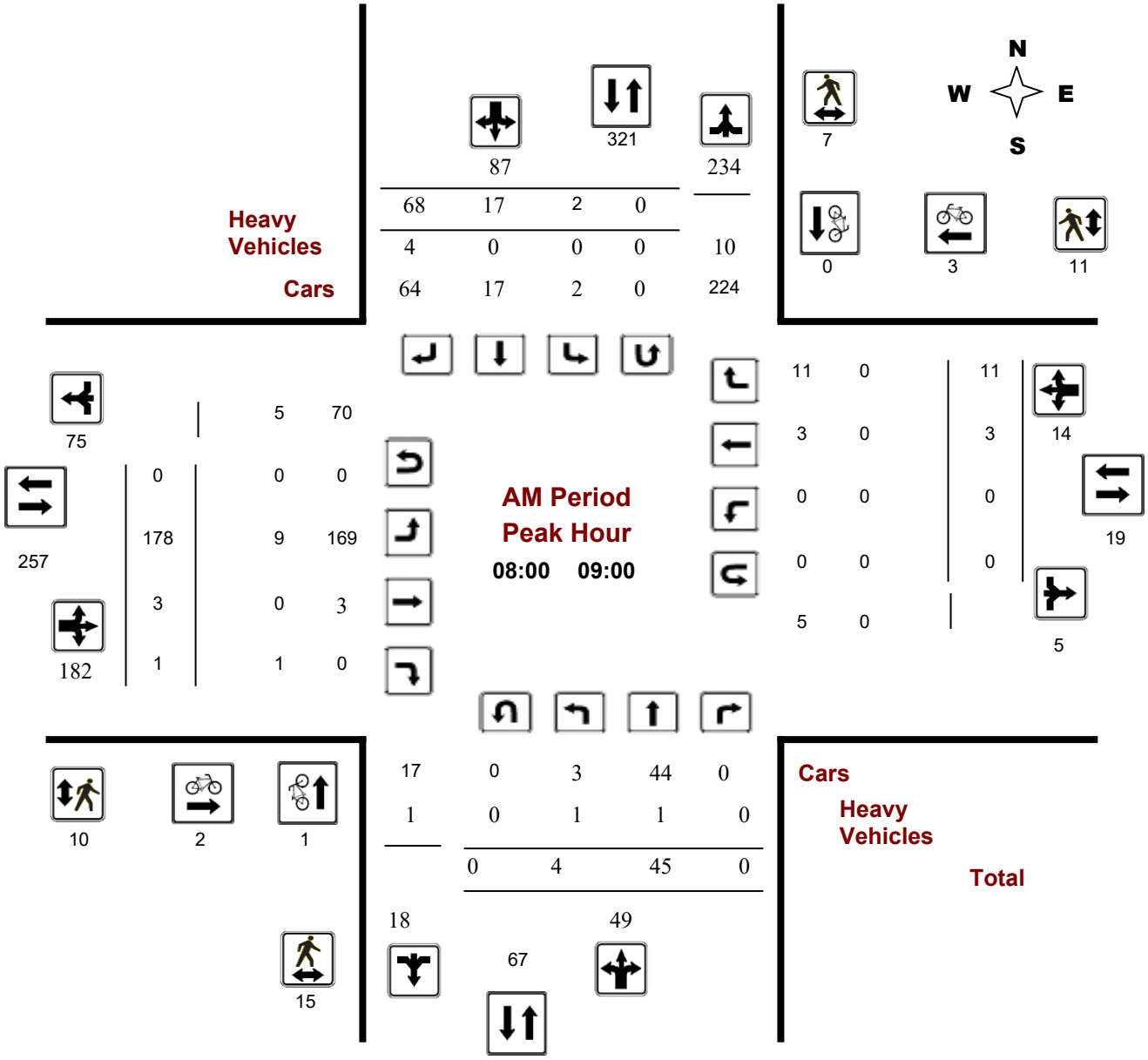
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## SPRINGLAND DR N @ FLANNERY DR N

**Survey Date:** Tuesday, November 26, 2019 **WO No:** 39107

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




**Comments**

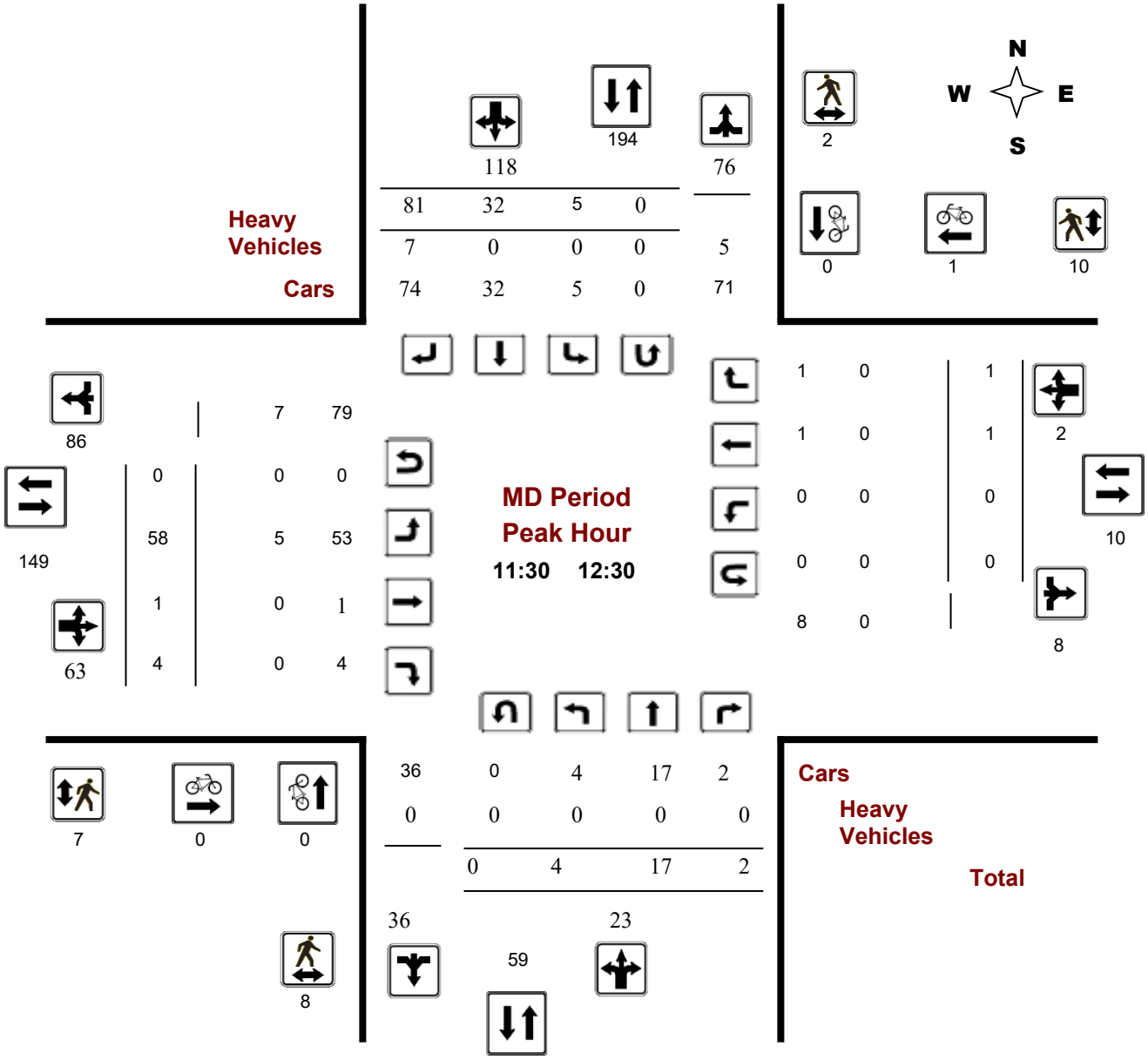
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## SPRINGLAND DR N @ FLANNERY DR N

**Survey Date:** Tuesday, November 26, 2019 **WO No:** 39107

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




**Comments**

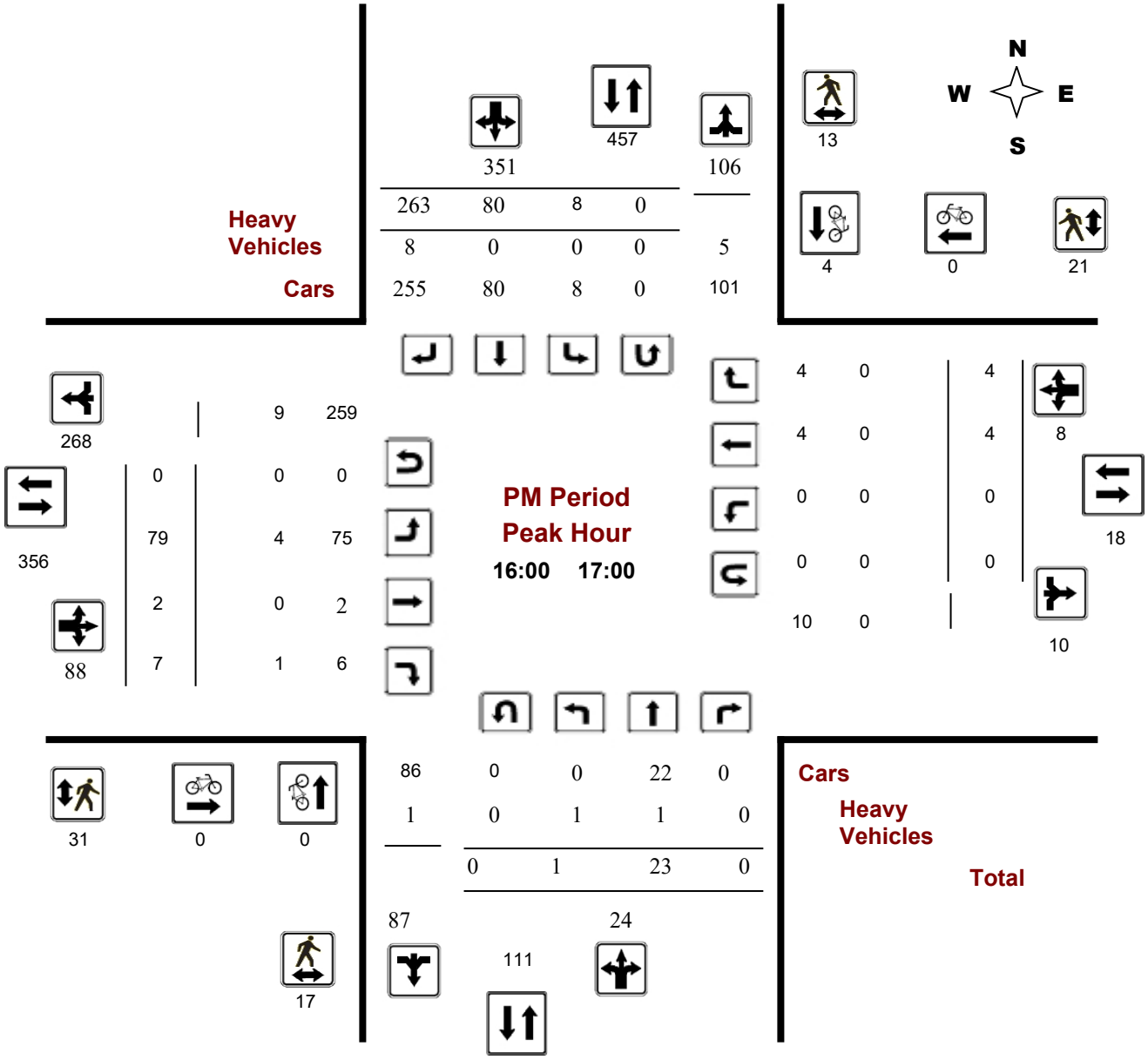
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## SPRINGLAND DR N @ FLANNERY DR N

**Survey Date:** Tuesday, November 26, 2019 **WO No:** 39107

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




**Comments**

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## SPRINGLAND DR N @ FLANNERY DR N

**Survey Date:** Tuesday, November 26, 2019 **WO No:** 39107

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

## Full Study Summary (8 HR Standard)

**Survey Date:** Tuesday, November 26, 2019

**Total Observed U-Turns**

Northbound: 0 Southbound: 0

Eastbound: 1 Westbound: 0

**AADT Factor**

1.00

| | Northbound | | | | Southbound | | | | | Eastbound | | | | Westbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Period | LT | ST | RT | NB TOT | LT | ST | RT | SB TOT | STR TOT | LT | ST | RT | EB TOT | LT | ST | RT | WB TOT | STR TOT | Grand Total |
| 07:00 08:00 | 2 | 36 | 0 | **38** | 1 | 10 | 35 | **46** | **84** | 143 | 0 | 3 | **146** | 0 | 0 | 6 | **6** | **152** | **236** |
| 08:00 09:00 | 4 | 45 | 0 | **49** | 2 | 17 | 68 | **87** | **136** | 178 | 3 | 1 | **182** | 0 | 3 | 11 | **14** | **196** | **332** |
| 09:00 10:00 | 1 | 34 | 0 | **35** | 3 | 16 | 52 | **71** | **106** | 100 | 5 | 4 | **109** | 1 | 2 | 4 | **7** | **116** | **222** |
| 11:30 12:30 | 4 | 17 | 2 | **23** | 5 | 32 | 81 | **118** | **141** | 58 | 1 | 4 | **63** | 0 | 1 | 1 | **2** | **65** | **206** |
| 12:30 13:30 | 1 | 14 | 0 | **15** | 1 | 30 | 75 | **106** | **121** | 66 | 3 | 1 | **70** | 0 | 4 | 3 | **7** | **77** | **198** |
| 15:00 16:00 | 5 | 20 | 0 | **25** | 1 | 58 | 142 | **201** | **226** | 72 | 2 | 3 | **77** | 0 | 3 | 3 | **6** | **83** | **309** |
| 16:00 17:00 | 1 | 23 | 0 | **24** | 8 | 80 | 263 | **351** | **375** | 79 | 2 | 7 | **88** | 0 | 4 | 4 | **8** | **96** | **471** |
| 17:00 18:00 | 1 | 23 | 0 | **24** | 3 | 60 | 191 | **254** | **278** | 70 | 1 | 1 | **72** | 0 | 2 | 6 | **8** | **80** | **358** |
| **Sub Total** | 19 | 212 | 2 | **233** | 24 | 303 | 907 | **1234** | **1467** | 766 | 17 | 24 | **807** | 1 | 19 | 38 | **58** | **865** | **2332** |
| **U Turns** | | | | **0** | | | | **0** | **0** | | | | **1** | | | | **0** | **1** | **1** |
| **Total** | 19 | 212 | 2 | **233** | 24 | 303 | 907 | **1234** | **1467** | 766 | 17 | 24 | **808** | 1 | 19 | 38 | **58** | **866** | **2333** |
| **EQ 12Hr** | 26 | 295 | 3 | **324** | 33 | 421 | 1261 | **1715** | **2039** | 1065 | 24 | 33 | **1123** | 1 | 26 | 53 | **81** | **1204** | **3243** |
| Note: These values are calculated by multiplying the totals by the appropriate expansion factor. | | | | | | | | | | | | | | **1.39** | | | | | |
| **AVG 12Hr** | 25 | 278 | 3 | **305** | 31 | 397 | 1188 | **1617** | **2039** | 1003 | 22 | 31 | **1058** | 1 | 25 | 50 | **76** | **1204** | **3243** |
| Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor. | | | | | | | | | | | | | | **1** | | | | | |
| **AVG 24Hr** | 33 | 364 | 3 | **400** | 41 | 520 | 1557 | **2118** | **2518** | 1315 | 29 | 41 | **1387** | 2 | 33 | 65 | **100** | **1487** | **4005** |
| Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor. | | | | | | | | | | | | | | **1.31** | | | | | |

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

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## SPRINGLAND DR N @ FLANNERY DR N

**Survey Date:** Tuesday, November 26, 2019 **WO No:** 39107

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

## Full Study 15 Minute Increments

| | | Northbound | | | | Southbound | | | | | Eastbound | | | | Westbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Time Period** | | **LT** | **ST** | **RT** | **N TOT** | **LT** | **ST** | **RT** | **S TOT** | **STR TOT** | **LT** | **ST** | **RT** | **E TOT** | **LT** | **ST** | **RT** | **W TOT** | **STR TOT** | **Grand Total** |
| 07:00 | 07:15 | 0 | 6 | 0 | 6 | 0 | 2 | 6 | 8 | 1 | 28 | 0 | 0 | 28 | 0 | 0 | 1 | 1 | 1 | 43 |
| 07:15 | 07:30 | 1 | 7 | 0 | 8 | 0 | 2 | 9 | 11 | 1 | 32 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 1 | 51 |
| 07:30 | 07:45 | 1 | 11 | 0 | 12 | 0 | 2 | 7 | 9 | 1 | 39 | 0 | 3 | 42 | 0 | 0 | 4 | 4 | 1 | 67 |
| 07:45 | 08:00 | 0 | 12 | 0 | 12 | 1 | 4 | 13 | 18 | 1 | 44 | 0 | 0 | 44 | 0 | 0 | 1 | 1 | 1 | 75 |
| 08:00 | 08:15 | 1 | 9 | 0 | 10 | 1 | 1 | 13 | 15 | 1 | 52 | 0 | 1 | 53 | 0 | 1 | 4 | 5 | 1 | 83 |
| 08:15 | 08:30 | 0 | 16 | 0 | 16 | 0 | 3 | 14 | 17 | 1 | 41 | 0 | 0 | 41 | 0 | 0 | 1 | 1 | 1 | 75 |
| 08:30 | 08:45 | 1 | 9 | 0 | 10 | 1 | 4 | 15 | 20 | 1 | 44 | 3 | 0 | 47 | 0 | 0 | 5 | 5 | 1 | 82 |
| 08:45 | 09:00 | 2 | 11 | 0 | 13 | 0 | 9 | 26 | 35 | 3 | 41 | 0 | 0 | 41 | 0 | 2 | 1 | 3 | 3 | 92 |
| 09:00 | 09:15 | 0 | 11 | 0 | 11 | 1 | 2 | 8 | 11 | 1 | 31 | 3 | 3 | 37 | 0 | 1 | 0 | 1 | 1 | 60 |
| 09:15 | 09:30 | 0 | 11 | 0 | 11 | 2 | 5 | 9 | 16 | 1 | 30 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 1 | 57 |
| 09:30 | 09:45 | 1 | 6 | 0 | 7 | 0 | 5 | 13 | 18 | 3 | 18 | 1 | 1 | 20 | 0 | 1 | 3 | 4 | 3 | 49 |
| 09:45 | 10:00 | 0 | 6 | 0 | 6 | 0 | 4 | 22 | 26 | 0 | 21 | 1 | 0 | 22 | 1 | 0 | 1 | 2 | 0 | 56 |
| 11:30 | 11:45 | 2 | 3 | 0 | 5 | 0 | 9 | 20 | 29 | 3 | 16 | 0 | 2 | 18 | 0 | 0 | 0 | 0 | 3 | 52 |
| 11:45 | 12:00 | 1 | 4 | 0 | 5 | 0 | 7 | 16 | 23 | 2 | 9 | 1 | 1 | 11 | 0 | 1 | 1 | 2 | 2 | 41 |
| 12:00 | 12:15 | 1 | 4 | 1 | 6 | 2 | 11 | 22 | 35 | 1 | 14 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 1 | 55 |
| 12:15 | 12:30 | 0 | 6 | 1 | 7 | 3 | 5 | 23 | 31 | 1 | 19 | 0 | 1 | 20 | 0 | 0 | 0 | 0 | 1 | 58 |
| 12:30 | 12:45 | 0 | 3 | 0 | 3 | 0 | 7 | 18 | 25 | 1 | 14 | 2 | 0 | 16 | 0 | 2 | 1 | 3 | 1 | 47 |
| 12:45 | 13:00 | 1 | 1 | 0 | 2 | 0 | 6 | 16 | 22 | 2 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 2 | 37 |
| 13:00 | 13:15 | 0 | 5 | 0 | 5 | 0 | 4 | 21 | 25 | 1 | 17 | 0 | 0 | 17 | 0 | 0 | 1 | 1 | 1 | 48 |
| 13:15 | 13:30 | 0 | 5 | 0 | 5 | 1 | 13 | 20 | 34 | 4 | 22 | 1 | 1 | 24 | 0 | 2 | 1 | 3 | 4 | 66 |
| 15:00 | 15:15 | 0 | 9 | 0 | 9 | 0 | 11 | 35 | 46 | 1 | 14 | 0 | 0 | 14 | 0 | 1 | 1 | 2 | 1 | 71 |
| 15:15 | 15:30 | 1 | 3 | 0 | 4 | 0 | 20 | 31 | 51 | 5 | 18 | 0 | 2 | 20 | 0 | 0 | 0 | 0 | 5 | 75 |
| 15:30 | 15:45 | 1 | 4 | 0 | 5 | 0 | 14 | 35 | 49 | 2 | 22 | 2 | 0 | 25 | 0 | 1 | 1 | 2 | 2 | 81 |
| 15:45 | 16:00 | 3 | 4 | 0 | 7 | 1 | 13 | 41 | 55 | 1 | 18 | 0 | 1 | 19 | 0 | 1 | 1 | 2 | 1 | 83 |
| 16:00 | 16:15 | 1 | 10 | 0 | 11 | 1 | 12 | 60 | 73 | 4 | 19 | 2 | 4 | 25 | 0 | 2 | 3 | 5 | 4 | 114 |
| 16:15 | 16:30 | 0 | 5 | 0 | 5 | 1 | 22 | 65 | 88 | 2 | 24 | 0 | 1 | 25 | 0 | 1 | 0 | 1 | 2 | 119 |
| 16:30 | 16:45 | 0 | 4 | 0 | 4 | 3 | 28 | 79 | 110 | 1 | 21 | 0 | 2 | 23 | 0 | 0 | 1 | 1 | 1 | 138 |
| 16:45 | 17:00 | 0 | 4 | 0 | 4 | 3 | 18 | 59 | 80 | 3 | 15 | 0 | 0 | 15 | 0 | 1 | 0 | 1 | 3 | 100 |
| 17:00 | 17:15 | 1 | 5 | 0 | 6 | 1 | 13 | 62 | 76 | 2 | 14 | 0 | 0 | 14 | 0 | 2 | 1 | 3 | 2 | 99 |
| 17:15 | 17:30 | 0 | 7 | 0 | 7 | 1 | 15 | 51 | 67 | 2 | 21 | 1 | 0 | 22 | 0 | 0 | 1 | 1 | 2 | 97 |
| 17:30 | 17:45 | 0 | 4 | 0 | 4 | 1 | 18 | 36 | 55 | 1 | 20 | 0 | 1 | 21 | 0 | 0 | 3 | 3 | 1 | 83 |
| 17:45 | 18:00 | 0 | 7 | 0 | 7 | 0 | 14 | 42 | 56 | 4 | 15 | 0 | 0 | 15 | 0 | 0 | 1 | 1 | 4 | 79 |
| Total: | | 19 | 212 | 2 | 233 | 24 | 303 | 907 | 1234 | 58 | 766 | 17 | 24 | 808 | 1 | 19 | 38 | 58 | 58 | 2,333 |

Note: U-Turns are included in Totals.

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## SPRINGLAND DR N @ FLANNERY DR N

**Survey Date:** Tuesday, November 26, 2019 **WO No:** 39107

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

### Full Study Cyclist Volume

| Time Period | | Northbound | Southbound | Street Total | Eastbound | Westbound | Street Total | Grand Total |
|---|---|---|---|---|---|---|---|---|
| 07:00 | 07:15 | 1 | 1 | 2 | 0 | 2 | 2 | 4 |
| 07:15 | 07:30 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 07:30 | 07:45 | 1 | 0 | 1 | 0 | 1 | 1 | 2 |
| 07:45 | 08:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 | 08:15 | 0 | 0 | 0 | 1 | 1 | 2 | 2 |
| 08:15 | 08:30 | 1 | 0 | 1 | 1 | 1 | 2 | 3 |
| 08:30 | 08:45 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 08:45 | 09:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:00 | 09:15 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 09:15 | 09:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:30 | 09:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:45 | 10:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 | 11:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 | 12:00 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 12:00 | 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 12:45 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 12:45 | 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 13:15 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 13:15 | 13:30 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 15:00 | 15:15 | 0 | 2 | 2 | 0 | 0 | 0 | 2 |
| 15:15 | 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 16:00 | 0 | 3 | 3 | 0 | 0 | 0 | 3 |
| 16:00 | 16:15 | 0 | 2 | 2 | 0 | 0 | 0 | 2 |
| 16:15 | 16:30 | 0 | 2 | 2 | 0 | 0 | 0 | 2 |
| 16:30 | 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:15 | 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:30 | 17:45 | 0 | 1 | 1 | 1 | 0 | 1 | 2 |
| 17:45 | 18:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | | 4 | 11 | **15** | 4 | 10 | 14 | 29 |

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## SPRINGLAND DR N @ FLANNERY DR N

**Survey Date:** Tuesday, November 26, 2019 **WO No:** 39107

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

## Full Study Pedestrian Volume

| Time Period | NB Approach (E or W Crossing) | SB Approach (E or W Crossing) | Total | EB Approach (N or S Crossing) | WB Approach (N or S Crossing) | Total | Grand Total |
|---|---|---|---|---|---|---|---|
| 07:00 07:15 | 5 | 0 | **5** | 0 | 6 | **6** | **11** |
| 07:15 07:30 | 1 | 0 | **1** | 0 | 1 | **1** | **2** |
| 07:30 07:45 | 4 | 1 | **5** | 1 | 2 | **3** | **8** |
| 07:45 08:00 | 0 | 4 | **4** | 2 | 5 | **7** | **11** |
| 08:00 08:15 | 3 | 0 | **3** | 4 | 3 | **7** | **10** |
| 08:15 08:30 | 1 | 2 | **3** | 3 | 1 | **4** | **7** |
| 08:30 08:45 | 7 | 1 | **8** | 3 | 1 | **4** | **12** |
| 08:45 09:00 | 4 | 4 | **8** | 0 | 6 | **6** | **14** |
| 09:00 09:15 | 2 | 2 | **4** | 1 | 2 | **3** | **7** |
| 09:15 09:30 | 2 | 1 | **3** | 0 | 2 | **2** | **5** |
| 09:30 09:45 | 0 | 0 | **0** | 0 | 0 | **0** | **0** |
| 09:45 10:00 | 1 | 0 | **1** | 0 | 0 | **0** | **1** |
| 11:30 11:45 | 4 | 1 | **5** | 2 | 4 | **6** | **11** |
| 11:45 12:00 | 1 | 0 | **1** | 0 | 2 | **2** | **3** |
| 12:00 12:15 | 1 | 0 | **1** | 3 | 3 | **6** | **7** |
| 12:15 12:30 | 2 | 1 | **3** | 2 | 1 | **3** | **6** |
| 12:30 12:45 | 3 | 0 | **3** | 5 | 7 | **12** | **15** |
| 12:45 13:00 | 2 | 0 | **2** | 8 | 1 | **9** | **11** |
| 13:00 13:15 | 1 | 0 | **1** | 2 | 5 | **7** | **8** |
| 13:15 13:30 | 2 | 0 | **2** | 3 | 4 | **7** | **9** |
| 15:00 15:15 | 3 | 2 | **5** | 6 | 1 | **7** | **12** |
| 15:15 15:30 | 4 | 17 | **21** | 12 | 16 | **28** | **49** |
| 15:30 15:45 | 5 | 1 | **6** | 7 | 2 | **9** | **15** |
| 15:45 16:00 | 1 | 3 | **4** | 2 | 11 | **13** | **17** |
| 16:00 16:15 | 8 | 4 | **12** | 8 | 11 | **19** | **31** |
| 16:15 16:30 | 3 | 3 | **6** | 5 | 4 | **9** | **15** |
| 16:30 16:45 | 2 | 2 | **4** | 9 | 1 | **10** | **14** |
| 16:45 17:00 | 4 | 4 | **8** | 9 | 5 | **14** | **22** |
| 17:00 17:15 | 0 | 0 | **0** | 2 | 1 | **3** | **3** |
| 17:15 17:30 | 3 | 3 | **6** | 12 | 5 | **17** | **23** |
| 17:30 17:45 | 5 | 3 | **8** | 4 | 7 | **11** | **19** |
| 17:45 18:00 | 2 | 3 | **5** | 8 | 9 | **17** | **22** |
| Total ..... | 86 | 62 | **148** | 123 | 129 | **252** | **400** |

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## SPRINGLAND DR N @ FLANNERY DR N

**Survey Date:** Tuesday, November 26, 2019 **WO No:** 39107

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

## Full Study Heavy Vehicles

| | | Northbound | | | | Southbound | | | | | Eastbound | | | | Westbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time Period | | LT | ST | RT | N TOT | LT | ST | RT | S TOT | STR TOT | LT | ST | RT | E TOT | LT | ST | RT | W TOT | STR TOT | Grand Total |
| 07:00 | 07:15 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 3 | 0 | 0 | **3** | 0 | 0 | 0 | **0** | **3** | **4** |
| 07:15 | 07:30 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | **0** | **1** |
| 07:30 | 07:45 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 3 | 0 | 2 | **5** | 0 | 0 | 0 | **0** | **5** | **6** |
| 07:45 | 08:00 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 3 | 0 | 0 | **3** | 0 | 0 | 0 | **0** | **3** | **4** |
| 08:00 | 08:15 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 4 | 0 | 1 | **5** | 0 | 0 | 0 | **0** | **5** | **6** |
| 08:15 | 08:30 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | **0** | **1** |
| 08:30 | 08:45 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 3 | 0 | 0 | **3** | 0 | 0 | 0 | **0** | **3** | **4** |
| 08:45 | 09:00 | 1 | 1 | 0 | **2** | 0 | 0 | 1 | **1** | **3** | 2 | 0 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | **5** |
| 09:00 | 09:15 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 4 | 0 | 2 | **6** | 0 | 0 | 0 | **0** | **6** | **7** |
| 09:15 | 09:30 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 1 | 0 | 0 | **1** | 0 | 0 | 0 | **0** | **1** | **2** |
| 09:30 | 09:45 | 0 | 0 | 0 | **0** | 0 | 0 | 3 | **3** | **3** | 1 | 0 | 0 | **1** | 0 | 0 | 0 | **0** | **1** | **4** |
| 09:45 | 10:00 | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | **0** | 2 | 0 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | **2** |
| 11:30 | 11:45 | 0 | 0 | 0 | **0** | 0 | 0 | 3 | **3** | **3** | 1 | 0 | 0 | **1** | 0 | 0 | 0 | **0** | **1** | **4** |
| 11:45 | 12:00 | 0 | 0 | 0 | **0** | 0 | 0 | 2 | **2** | **2** | 2 | 0 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | **4** |
| 12:00 | 12:15 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | **0** | **1** |
| 12:15 | 12:30 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 2 | 0 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | **3** |
| 12:30 | 12:45 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | **0** | **1** |
| 12:45 | 13:00 | 0 | 0 | 0 | **0** | 0 | 0 | 2 | **2** | **2** | 1 | 0 | 0 | **1** | 0 | 0 | 0 | **0** | **1** | **3** |
| 13:00 | 13:15 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 2 | 0 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | **3** |
| 13:15 | 13:30 | 0 | 1 | 0 | **1** | 0 | 2 | 1 | **3** | **4** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | **0** | **4** |
| 15:00 | 15:15 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 4 | 0 | 0 | **4** | 0 | 0 | 0 | **0** | **4** | **5** |
| 15:15 | 15:30 | 0 | 0 | 0 | **0** | 0 | 1 | 4 | **5** | **5** | 1 | 0 | 1 | **2** | 0 | 0 | 0 | **0** | **2** | **7** |
| 15:30 | 15:45 | 0 | 0 | 0 | **0** | 0 | 0 | 2 | **2** | **2** | 1 | 0 | 0 | **1** | 0 | 1 | 0 | **1** | **2** | **4** |
| 15:45 | 16:00 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 1 | 0 | 1 | **2** | 0 | 0 | 0 | **0** | **2** | **3** |
| 16:00 | 16:15 | 1 | 0 | 0 | **1** | 0 | 0 | 3 | **3** | **4** | 1 | 0 | 1 | **2** | 0 | 0 | 0 | **0** | **2** | **6** |
| 16:15 | 16:30 | 0 | 0 | 0 | **0** | 0 | 0 | 2 | **2** | **2** | 1 | 0 | 0 | **1** | 0 | 0 | 0 | **0** | **1** | **3** |
| 16:30 | 16:45 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 2 | 0 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | **3** |
| 16:45 | 17:00 | 0 | 1 | 0 | **1** | 0 | 0 | 2 | **2** | **3** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | **0** | **3** |
| 17:00 | 17:15 | 0 | 0 | 0 | **0** | 0 | 0 | 2 | **2** | **2** | 2 | 0 | 0 | **2** | 0 | 0 | 0 | **0** | **2** | **4** |
| 17:15 | 17:30 | 0 | 0 | 0 | **0** | 0 | 0 | 2 | **2** | **2** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | **0** | **2** |
| 17:30 | 17:45 | 0 | 0 | 0 | **0** | 0 | 0 | 1 | **1** | **1** | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** | **0** | **1** |
| 17:45 | 18:00 | 0 | 0 | 0 | **0** | 0 | 0 | 4 | **4** | **4** | 1 | 0 | 0 | **1** | 0 | 0 | 0 | **0** | **1** | **5** |
| Total: | None | 2 | 3 | 0 | **5** | 0 | 3 | 50 | **53** | **58** | 48 | 0 | 8 | **56** | 0 | 1 | 0 | **1** | **57** | **115** |

# Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## SPRINGLAND DR N @ FLANNERY DR N

**Survey Date:** Tuesday, November 26, 2019 **WO No:** 39107

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

### Full Study 15 Minute U-Turn Total

| Time Period | | Northbound U-Turn Total | Southbound U-Turn Total | Eastbound U-Turn Total | Westbound U-Turn Total | Total |
|---|---|---|---|---|---|---|
| 07:00 | 07:15 | 0 | 0 | 0 | 0 | 0 |
| 07:15 | 07:30 | 0 | 0 | 0 | 0 | 0 |
| 07:30 | 07:45 | 0 | 0 | 0 | 0 | 0 |
| 07:45 | 08:00 | 0 | 0 | 0 | 0 | 0 |
| 08:00 | 08:15 | 0 | 0 | 0 | 0 | 0 |
| 08:15 | 08:30 | 0 | 0 | 0 | 0 | 0 |
| 08:30 | 08:45 | 0 | 0 | 0 | 0 | 0 |
| 08:45 | 09:00 | 0 | 0 | 0 | 0 | 0 |
| 09:00 | 09:15 | 0 | 0 | 0 | 0 | 0 |
| 09:15 | 09:30 | 0 | 0 | 0 | 0 | 0 |
| 09:30 | 09:45 | 0 | 0 | 0 | 0 | 0 |
| 09:45 | 10:00 | 0 | 0 | 0 | 0 | 0 |
| 11:30 | 11:45 | 0 | 0 | 0 | 0 | 0 |
| 11:45 | 12:00 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 12:15 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 12:30 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 12:45 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 13:00 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 13:15 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 13:30 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | 15:15 | 0 | 0 | 0 | 0 | 0 |
| 15:15 | 15:30 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 15:45 | 0 | 0 | 1 | 0 | 1 |
| 15:45 | 16:00 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | 16:15 | 0 | 0 | 0 | 0 | 0 |
| 16:15 | 16:30 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 16:45 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 17:00 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 17:15 | 0 | 0 | 0 | 0 | 0 |
| 17:15 | 17:30 | 0 | 0 | 0 | 0 | 0 |
| 17:30 | 17:45 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 18:00 | 0 | 0 | 0 | 0 | 0 |
| Total | | 0 | 0 | 1 | 0 | 1 |

# Appendix D

COLLISION DATA

**Total Area**

| Classification of Accident | Rear End | Turning Movement | Sideswipe | Angle | Approaching | Single Vehicle (other) | Single vehicle (Unattended vehicle) | Other | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| P.D. only | 64 | 9 | 17 | 4 | 0 | 0 | 0 | 2 | 96 | 80% |
| Non-fatal injury | 18 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 24 | 20% |
| Non reportable | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Total | **82** | **14** | **18** | **4** | **0** | **0** | **0** | **2** | **120** | 100% |
| | #1 or 68% | #3 or 12% | #2 or 15% | #4 or 3% | #6 or 0% | #6 or 0% | #6 or 0% | #5 or 2% | | |

**Mooney's Bay Pl/Riverside Dr**

| Years | Total # Collisions | 24 Hr AADT Veh Volume | Days | Collisions/MEV |
|---|---|---|---|---|
| 2015-2019 | 13 | 28,825 | 1825 | **0.25** |

| Classification of Accident | Rear End | Turning Movement | Sideswipe | Angle | Approaching | Single Vehicle (other) | Single vehicle (Unattended vehicle) | Other | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| P.D. only | 7 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 9 | 69% |
| Non-fatal injury | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 31% |
| Non reportable | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Total | **11** | **1** | **1** | **0** | **0** | **0** | **0** | **0** | **13** | 100% |
| | 85% | 8% | 8% | 0% | 0% | 0% | 0% | 0% | | |

**Ridgewood Ave/Riverside Dr**

| Years | Total # Collisions | 24 Hr AADT Veh Volume | Days | Collisions/MEV |
|---|---|---|---|---|
| 2015-2019 | 17 | 32,870 | 1825 | **0.28** |

| Classification of Accident | Rear End | Turning Movement | Sideswipe | Angle | Approaching | Single Vehicle (other) | Single vehicle (Unattended vehicle) | Other | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| P.D. only | 13 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 16 | 94% |
| Non-fatal injury | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6% |
| Non reportable | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Total | **14** | **0** | **3** | **0** | **0** | **0** | **0** | **0** | **17** | 100% |
| | 82% | 0% | 18% | 0% | 0% | 0% | 0% | 0% | | |

**Ridgewood Ave, Riverside Dr to Dupont St**

| Years | Total # Collisions | 24 Hr AADT Veh Volume | Days | Collisions/MEV |
|---|---|---|---|---|
| 2015-2019 | 2 | n/a | 1825 | **n/a** |

| Classification of Accident | Rear End | Turning Movement | Sideswipe | Angle | Approaching | Single Vehicle (other) | Single vehicle (Unattended vehicle) | Other | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| P.D. only | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 100% |
| Non-fatal injury | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Non reportable | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Total | **0** | **0** | **0** | **1** | **0** | **0** | **0** | **1** | **2** | 100% |
| | 0% | 0% | 0% | 50% | 0% | 0% | 0% | 50% | | |

**Riverside Dr/Brookfield Rd/Hog's Back Rd**

| Years | Total # Collisions | 24 Hr AADT Veh Volume | Days | Collisions/MEV |
|---|---|---|---|---|
| 2015-2019 | 68 | 45,436 | 1825 | **0.82** |

| Classification of Accident | Rear End | Turning Movement | Sideswipe | Angle | Approaching | Single Vehicle (other) | Single vehicle (Unattended vehicle) | Other | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| P.D. only | 36 | 8 | 6 | 2 | 0 | 0 | 0 | 1 | 53 | 78% |
| Non-fatal injury | 9 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 15 | 22% |
| Non reportable | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Total | **45** | **13** | **7** | **2** | **0** | **0** | **0** | **1** | **68** | 100% |
| | 66% | 19% | 10% | 3% | 0% | 0% | 0% | 1% | | |

**Riverside Dr, Bayport Priv to Mooney's Bay Pl**

| Years | Total # Collisions | 24 Hr AADT Veh Volume | Days | Collisions/MEV |
|---|---|---|---|---|
| 2015-2019 | 2 | n/a | 1825 | **n/a** |

| Classification of Accident | Rear End | Turning Movement | Sideswipe | Angle | Approaching | Single Vehicle (other) | Single vehicle (Unattended vehicle) | Other | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| P.D. only | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 100% |
| Non-fatal injury | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Non reportable | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Total | **2** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **2** | 100% |
| | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | |

**Riverside Dr, Hog's Back Rd to Ridgewood Ave**

| Years | Total # Collisions | 24 Hr AADT Veh Volume | Days | Collisions/MEV |
|---|---|---|---|---|
| 2015-2019 | 16 | n/a | 1825 | **n/a** |

| Classification of Accident | Rear End | Turning Movement | Sideswipe | Angle | Approaching | Single Vehicle (other) | Single vehicle (Unattended vehicle) | Other | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| P.D. only | 6 | 0 | 6 | 1 | 0 | 0 | 0 | 0 | 13 | 81% |
| Non-fatal injury | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 19% |
| Non reportable | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Total | **9** | **0** | **6** | **1** | **0** | **0** | **0** | **0** | **16** | 100% |
| | 56% | 0% | 38% | 6% | 0% | 0% | 0% | 0% | | |

**Riverside Dr, Ridgewood Ave to Bayport Priv**

| Years | Total # Collisions | 24 Hr AADT Veh Volume | Days | Collisions/MEV |
|---|---|---|---|---|
| 2015-2019 | 2 | n/a | 1825 | **n/a** |

| Classification of Accident | Rear End | Turning Movement | Sideswipe | Angle | Approaching | Single Vehicle (other) | Single vehicle (Unattended vehicle) | Other | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| P.D. only | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 50% |
| Non-fatal injury | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 50% |
| Non reportable | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Total | **1** | **0** | **1** | **0** | **0** | **0** | **0** | **0** | **2** | 100% |
| | 50% | 0% | 50% | 0% | 0% | 0% | 0% | 0% | | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

**Location:** MOONEY'S BAY PL @ RIVERSIDE DR

**Traffic Control:** Traffic signal

**Total Collisions:** 9

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2015-May-01, Fri,15:58 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Passenger van | Other motor vehicle | |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Aug-08, Sat,12:30 | Clear | Rear end | Non-fatal injury | Dry | North | Slowing or stopping | Pick-up truck | Other motor vehicle | |
| | | | | | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Going ahead | Passenger van | Other motor vehicle | |
| | | | | | North | Changing lanes | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Aug-20, Thu,10:08 | Clear | Sideswipe | P.D. only | Dry | North | Going ahead | Truck - closed | Other motor vehicle | |
| | | | | | North | Slowing or stopping | Passenger van | Other motor vehicle | |
| | | | | | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Aug-23, Tue,16:46 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2016-Dec-07, Wed,16:52 | Clear | Rear end | P.D. only | Wet | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Dec-31, Sat,16:56 | Snow | Turning movement | P.D. only | Loose snow | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Making "U" turn | Truck - tractor | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2017-Apr-21, Fri,09:44 | Clear | Rear end | Non-fatal injury | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2018-Feb-23, Fri,19:26 | Freezing Rain | Rear end | P.D. only | Ice | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2018-Jul-16, Mon,18:02 | Clear | Rear end | Non-fatal injury | Dry | North | Stopped | Pick-up truck | Other motor vehicle | |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |

**Location:** RIDGEWOOD AVE @ RIVERSIDE DR

**Traffic Control:** Traffic signal

**Total Collisions:** 19

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2014-Jan-26, Sun,10:44 | Clear | Rear end | P.D. only | Slush | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2014-Mar-06, Thu,13:00 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2014-Apr-06, Sun,22:35 | Clear | Turning movement | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Turning left | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2014-Dec-01, Mon,10:20 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Jan-28, Wed,19:05 | Clear | Sideswipe | P.D. only | Wet | South | Changing lanes | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2015-Jul-11, Sat,17:02 | Clear | Rear end | Non-fatal injury | Dry | South | Turning left | Unknown | Cyclist | |
| | | | | | South | Turning left | Bicycle | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Aug-28, Fri,12:32 | Clear | Rear end | P.D. only | Dry | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Pick-up truck | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Sep-08, Tue,14:55 | Clear | Sideswipe | P.D. only | Dry | North | Changing lanes | Pick-up truck | Other motor vehicle | |
| | | | | | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Slowing or stopping | Truck - closed | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Oct-20, Tue,12:44 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-May-25, Wed,18:13 | Clear | Sideswipe | P.D. only | Dry | West | Turning left | Pick-up truck | Other motor vehicle | |
| | | | | | West | Turning left | Automobile, station wagon | Other motor vehicle | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2016-Aug-20, Sat,17:10 | Clear | SMV other | P.D. only | Dry | South | Going ahead | Pick-up truck | Curb | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Oct-01, Sat,13:37 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2017-Feb-16, Thu,14:52 | Clear | Rear end | P.D. only | Loose snow | North | Changing lanes | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Going ahead | Pick-up truck | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2017-Jun-27, Tue,19:31 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Passenger van | Other motor vehicle | |
| | | | | | South | Stopped | Pick-up truck | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2017-Jul-15, Sat,14:55 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2018-Jan-28, Sun,14:57 | Clear | Rear end | P.D. only | Dry | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2018-Aug-14, Tue,08:16 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Passenger van | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Pick-up truck | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2018-Nov-19, Mon,11:20 | Clear | Rear end | P.D. only | Slush | West | Turning right | Passenger van | Other motor vehicle | |
| | | | | | West | Turning right | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2018-Nov-23, Fri,14:51 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |

**Location:** RIDGEWOOD AVE btwn RIVERSIDE DR & DUPONT ST

**Traffic Control:** No control

**Total Collisions:** 3

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2016-Oct-06, Thu,00:00 | Clear | SMV unattended vehicle | P.D. only | Dry | North | Reversing | Automobile, station wagon | Unattended vehicle | |

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2018-Jul-19, Thu,18:02 | Clear | Angle | P.D. only | Dry | North | Turning right | Automobile, station wagon | Other motor vehicle | |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2018-Sep-06, Thu,09:20 | Clear | Other | P.D. only | Dry | South | Reversing | Unknown | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |

**Location:** RIVERSIDE DR @ BROOKFIELD RD/HOG'S BACK RD

**Traffic Control:** Traffic signal **Total Collisions:** 72

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2014-Jan-11, Sat,07:17 | Freezing Rain | Rear end | P.D. only | Ice | South | Going ahead | Automobile, station wagon | Skidding/sliding | |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2014-Feb-12, Wed,09:32 | Clear | Turning movement | P.D. only | Dry | East | Turning left | Passenger van | Other motor vehicle | |
| | | | | | West | Going ahead | Pick-up truck | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2014-Jul-02, Wed,15:40 | Clear | Rear end | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| | | | | | East | Turning right | Automobile, station wagon | Other motor vehicle | |

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2014-Jul-28, Mon,21:00 | Clear | Other | P.D. only | Dry | North | Reversing | Passenger van | Other motor vehicle | |
| | | | | | South | Stopped | Motorcycle | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2014-Aug-01, Fri,16:00 | Clear | Rear end | P.D. only | Dry | West | Going ahead | Pick-up truck | Other motor vehicle | |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2014-Sep-01, Mon,15:30 | Clear | Other | P.D. only | Dry | West | Reversing | Automobile, station wagon | Other motor vehicle | |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2014-Sep-03, Wed,15:51 | Clear | Rear end | P.D. only | Dry | West | Turning right | Automobile, station wagon | Other motor vehicle | |
| | | | | | West | Turning right | Truck and trailer | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2014-Sep-07, Sun,12:24 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2014-Nov-04, Tue,17:30 | Rain | Sideswipe | P.D. only | Wet | North | Changing lanes | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Turning left | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2014-Nov-25, Tue,00:08 | Clear | Angle | Non-fatal injury | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | East | Going ahead | Pick-up truck | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2014-Dec-01, Mon,17:35 | Clear | Rear end | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| | | | | | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2014-Dec-05, Fri,17:00 | Clear | Rear end | P.D. only | Ice | East | Slowing or stopping | Pick-up truck | Other motor vehicle | |
| | | | | | East | Stopped | Pick-up truck | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2014-Dec-12, Fri,16:35 | Clear | Rear end | P.D. only | Wet | West | Going ahead | Pick-up truck | Other motor vehicle | |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2014-Dec-16, Tue,20:29 | Freezing Rain | Turning movement | P.D. only | Ice | South | Turning right | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Turning right | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Jan-18, Sun,00:42 | Clear | Turning movement | P.D. only | Dry | East | Turning left | Automobile, station wagon | Other motor vehicle | |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Jan-22, Thu,08:00 | Clear | Rear end | P.D. only | Ice | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | East | Stopped | Passenger van | Other motor vehicle | |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Jan-30, Fri,20:20 | Clear | Turning movement | P.D. only | Dry | East | Turning left | Unknown | Other motor vehicle | |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Feb-04, Wed,13:47 | Snow | Rear end | P.D. only | Ice | North | Turning left | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Turning left | Passenger van | Other motor vehicle | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2015-Feb-05, Thu,07:20 | Clear | Rear end | P.D. only | Wet | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Delivery van | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Feb-19, Thu,08:49 | Clear | Rear end | P.D. only | Wet | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Mar-22, Sun,15:35 | Clear | Rear end | P.D. only | Dry | South | Turning right | Pick-up truck | Other motor vehicle | |
| | | | | | South | Turning right | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Mar-23, Mon,19:06 | Clear | SMV other | P.D. only | Dry | West | Turning right | Automobile, station wagon | Pole (sign, parking meter) | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Apr-21, Tue,16:16 | Clear | Rear end | Non-fatal injury | Dry | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2015-May-01, Fri,16:11 | Clear | Rear end | P.D. only | Dry | North | Turning right | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Turning right | Delivery van | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Oct-09, Fri,07:28 | Rain | Sideswipe | Non-fatal injury | Wet | North | Going ahead | Pick-up truck | Other motor vehicle | |
| | | | | | North | Turning left | Pick-up truck | Other motor vehicle | |
| | | | | | North | Turning left | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Oct-14, Wed,14:37 | Clear | Rear end | P.D. only | Dry | South | Turning right | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Turning right | Pick-up truck | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Dec-12, Sat,14:30 | Clear | Rear end | Non-fatal injury | Dry | East | Turning right | Passenger van | Other motor vehicle | |
| | | | | | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Jan-02, Sat,16:24 | Clear | Rear end | P.D. only | Wet | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Stopped | Pick-up truck | Other motor vehicle | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2016-Jan-06, Wed,21:48 | Clear | Turning movement | P.D. only | Dry | East | Turning left | Automobile, station wagon | Other motor vehicle | |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Mar-27, Sun,20:55 | Clear | Rear end | P.D. only | Dry | East | Turning right | Pick-up truck | Other motor vehicle | |
| | | | | | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Mar-30, Wed,15:30 | Clear | Rear end | P.D. only | Dry | South | Turning right | Pick-up truck | Other motor vehicle | |
| | | | | | South | Turning right | Pick-up truck | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Mar-30, Wed,21:16 | Clear | Turning movement | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Turning left | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-May-20, Fri,08:00 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Stopped | Pick-up truck | Other motor vehicle | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2016-Jun-07, Tue,17:15 | Clear | Sideswipe | P.D. only | Dry | East | Changing lanes | Pick-up truck | Other motor vehicle | |
| | | | | | East | Changing lanes | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Jun-17, Fri,21:28 | Clear | Turning movement | Non-fatal injury | Dry | East | Turning left | Automobile, station wagon | Cyclist | |
| | | | | | West | Going ahead | Bicycle | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Jul-19, Tue,16:58 | Clear | Rear end | Non-fatal injury | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| | | | | | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Aug-02, Tue,17:44 | Clear | Rear end | P.D. only | Dry | South | Turning right | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Turning right | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Sep-09, Fri,22:37 | Clear | Turning movement | P.D. only | Dry | East | Turning left | Automobile, station wagon | Other motor vehicle | |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2016-Sep-15, Thu,17:58 | Clear | Sideswipe | P.D. only | Dry | West | Changing lanes | Pick-up truck | Other motor vehicle | |
| | | | | | West | Going ahead | Pick-up truck | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Sep-24, Sat,12:55 | Clear | Rear end | Non-fatal injury | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Sep-29, Thu,16:30 | Clear | Rear end | Non-fatal injury | Dry | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | West | Going ahead | Fire vehicle | Other | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Oct-18, Tue,08:56 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Tow truck | Other motor vehicle | |
| | | | | | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Dec-05, Mon,08:52 | Clear | SMV other | P.D. only | Packed snow | East | Turning right | Automobile, station wagon | Skidding/sliding | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2016-Dec-23, Fri,12:40 | Clear | Sideswipe | P.D. only | Dry | South | Changing lanes | Pick-up truck | Other motor vehicle | |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2017-Jan-16, Mon,09:00 | Clear | Rear end | P.D. only | Dry | South | Turning left | Unknown | Other motor vehicle | |
| | | | | | South | Turning left | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2017-Feb-08, Wed,13:19 | Freezing Rain | Rear end | P.D. only | Ice | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2017-Feb-09, Thu,09:52 | Clear | Rear end | P.D. only | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2017-Feb-12, Sun,20:50 | Snow | Rear end | P.D. only | Packed snow | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2017-Mar-08, Wed,19:01 | Clear | Rear end | P.D. only | Dry | East | Unknown | Unknown | Other motor vehicle | |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2017-Mar-14, Tue,17:23 | Snow | Rear end | P.D. only | Loose snow | North | Turning left | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Turning left | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2017-Apr-10, Mon,17:00 | Clear | Rear end | Non-fatal injury | Dry | North | Slowing or stopping | Pick-up truck | Other motor vehicle | |
| | | | | | North | Stopped | Pick-up truck | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2017-Jun-13, Tue,12:16 | Clear | Rear end | P.D. only | Dry | North | Slowing or stopping | Passenger van | Other motor vehicle | |
| | | | | | North | Stopped | Passenger van | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2017-Jun-23, Fri,09:50 | Rain | Rear end | P.D. only | Wet | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2017-Jul-13, Thu,08:55 | Clear | Turning movement | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| | | | | | East | Going ahead | Pick-up truck | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2017-Jul-14, Fri,12:31 | Clear | Other | P.D. only | Dry | South | Reversing | Pick-up truck | Other motor vehicle | |
| | | | | | North | Stopped | Motorcycle | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2017-Aug-14, Mon,09:20 | Clear | Angle | P.D. only | Dry | South | Turning left | Automobile, station wagon | Other motor vehicle | |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2017-Sep-18, Mon,20:21 | Clear | Rear end | Non-fatal injury | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2017-Sep-23, Sat,20:00 | Clear | Sideswipe | P.D. only | Dry | East | Changing lanes | Automobile, station wagon | Other motor vehicle | |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2017-Sep-27, Wed,14:34 | Rain | Rear end | P.D. only | Wet | West | Turning right | Pick-up truck | Other motor vehicle | |
| | | | | | West | Turning right | Passenger van | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2017-Oct-25, Wed,08:45 | Clear | Rear end | P.D. only | Dry | West | Turning right | Automobile, station wagon | Other motor vehicle | |
| | | | | | West | Turning right | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2017-Dec-16, Sat,15:32 | Clear | Sideswipe | P.D. only | Dry | South | Changing lanes | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2018-Jan-20, Sat,15:15 | Clear | Rear end | P.D. only | Loose snow | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2018-Mar-05, Mon,01:12 | Clear | SMV other | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Pole (utility, power) | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2018-Mar-17, Sat,02:33 | Clear | SMV other | P.D. only | Dry | East | Turning left | Automobile, station wagon | Ran off road | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2018-Sep-23, Sun,17:30 | Clear | Rear end | P.D. only | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2018-Oct-05, Fri,17:14 | Clear | Turning movement | Non-fatal injury | Dry | North | Turning left | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Going ahead | Motorcycle | Other motor vehicle | |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2018-Oct-09, Tue,10:00 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2018-Nov-02, Fri,18:02 | Rain | Rear end | P.D. only | Wet | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2018-Dec-08, Sat,21:03 | Clear | Turning movement | Non-fatal injury | Packed snow | East | Turning left | Automobile, station wagon | Other motor vehicle | |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2018-Dec-11, Tue,11:10 | Snow | Rear end | P.D. only | Loose snow | South | Turning right | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Turning right | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2018-Dec-21, Fri,15:18 | Rain | Turning movement | Non-fatal injury | Wet | West | Turning left | Automobile, station wagon | Cyclist | |
| | | | | | East | Going ahead | Bicycle | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2018-Dec-29, Sat,19:21 | Clear | Turning movement | Non-fatal injury | Dry | East | Turning left | Automobile, station wagon | Other motor vehicle | |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |

**Location:** RIVERSIDE DR btwn BAYPORT PRIV & MOONEY'S BAY PL

**Traffic Control:** No control

**Total Collisions:** 3

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2014-May-26, Mon,19:15 | Clear | Rear end | P.D. only | Dry | South | Changing lanes | Passenger van | Other motor vehicle | |
| | | | | | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2014-Jun-11, Wed,07:58 | Clear | Rear end | Non-fatal injury | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Jul-22, Fri,14:36 | Clear | Rear end | P.D. only | Dry | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Going ahead | Pick-up truck | Other motor vehicle | |

**Location:** RIVERSIDE DR btwn HOG'S BACK RD & RIDGEWOOD AVE

**Traffic Control:** No control

**Total Collisions:** 17

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2014-Jan-16, Thu,18:30 | Clear | Rear end | P.D. only | Wet | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2014-Oct-30, Thu,15:20 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2014-Dec-11, Thu,07:17 | Clear | Turning movement | P.D. only | Slush | North | Turning right | Tow truck | Other motor vehicle | |
| | | | | | North | Going ahead | Pick-up truck | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-May-17, Sun,21:22 | Clear | Rear end | Non-fatal injury | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Stopped | Pick-up truck | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Dec-13, Sun,00:15 | Clear | SMV other | P.D. only | Dry | South | Changing lanes | Automobile, station wagon | Ran off road | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Dec-15, Tue,08:16 | Rain | Rear end | P.D. only | Wet | North | Going ahead | Pick-up truck | Other motor vehicle | |
| | | | | | North | Stopped | Pick-up truck | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Dec-16, Wed,11:30 | Clear | Rear end | Non-fatal injury | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Turning right | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Going ahead | Unknown | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Dec-16, Wed,11:40 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Pick-up truck | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2016-Jan-22, Fri,14:41 | Clear | Sideswipe | P.D. only | Dry | South | Changing lanes | Truck - closed | Other motor vehicle | |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-May-13, Fri,15:33 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Passenger van | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Jun-24, Fri,21:25 | Clear | Rear end | Non-fatal injury | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Slowing or stopping | Pick-up truck | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Sep-03, Sat,07:58 | Clear | Sideswipe | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Changing lanes | Pick-up truck | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Oct-04, Tue,15:07 | Clear | Angle | P.D. only | Dry | West | Turning left | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Going ahead | Pick-up truck | Other motor vehicle | |

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2017-Feb-14, Tue,10:17 | Clear | Sideswipe | P.D. only | Dry | South | Changing lanes | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Going ahead | Passenger van | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2017-Aug-22, Tue,12:13 | Clear | Sideswipe | P.D. only | Wet | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2018-Jul-25, Wed,14:25 | Clear | Sideswipe | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Changing lanes | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2018-Dec-22, Sat,07:20 | Snow | Rear end | P.D. only | Packed snow | North | Going ahead | Pick-up truck | Other motor vehicle | |
| | | | | | North | Merging | Automobile, station wagon | Other motor vehicle | |

**Location:** RIVERSIDE DR btwn RIDGEWOOD AVE & BAYPORT PRIV

**Traffic Control:** No control

**Total Collisions:** 3

# City Operations - Transportation Services

## Collision Details Report - Public Version

**From:** January 1, 2014 **To:** December 31, 2018

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 0 |
| 2014-Jul-12, Sat,13:11 | Clear | Rear end | P.D. only | Dry | South | Changing lanes | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2015-Sep-11, Fri,16:12 | Clear | Rear end | Non-fatal injury | Dry | South | Going ahead | Pick-up truck | Other motor vehicle | |
| | | | | | South | Slowing or stopping | Pick-up truck | Other motor vehicle | |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
| | | | | | | | | | 0 |
| 2016-Aug-23, Tue,17:02 | Clear | Sideswipe | P.D. only | Dry | South | Changing lanes | Pick-up truck | Other motor vehicle | |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2019 **To:** December 31, 2019

**Location:** MOONEY'S BAY PL @ RIVERSIDE DR

**Traffic Control:** Traffic signal **Total Collisions:** 4

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2019-Jul-01, Mon,12:23 | Clear | Rear end | P.D. only | Dry | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Jul-10, Wed,08:41 | Clear | Rear end | P.D. only | Dry | North | Slowing or stopping | Delivery van | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Sep-18, Wed,11:57 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Dec-05, Thu,07:20 | Snow | Rear end | Non-fatal injury | Loose snow | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |

**Location:** RIDGEWOOD AVE @ RIVERSIDE DR

**Traffic Control:** Traffic signal **Total Collisions:** 4

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2019-Jan-17, Thu,11:15 | Clear | Rear end | P.D. only | Dry | West | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2019-Jan-27, Sun,11:30 | Clear | SMV other | P.D. only | Packed snow | North | Going ahead | Automobile, station wagon | Snowbank/drift | 0 |
| 2019-Apr-03, Wed,23:00 | Clear | Rear end | P.D. only | Wet | North | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-May-12, Sun,20:00 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |

**Location:** RIDGEWOOD AVE btwn RIVERSIDE DR & DUPONT ST

**Traffic Control:** No control **Total Collisions:** 2

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2019 **To:** December 31, 2019

**Location:** RIDGEWOOD AVE btwn RIVERSIDE DR & DUPONT ST

**Traffic Control:** No control **Total Collisions:** 2

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2019-Jun-13, Thu,13:53 | Clear | SMV unattended vehicle | Non-fatal injury | Dry | East | Going ahead | Automobile, station wagon | Unattended vehicle | 0 |
| 2019-Jul-19, Fri,23:00 | Clear | SMV other | P.D. only | Dry | East | Going ahead | Automobile, station wagon | Pedestrian | 1 |

**Location:** RIVERSIDE DR @ BROOKFIELD RD/HOG'S BACK RD

**Traffic Control:** Traffic signal **Total Collisions:** 14

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2019-Apr-19, Fri,19:10 | Rain | Rear end | Non-fatal injury | Wet | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-May-25, Sat,19:13 | Rain | Angle | P.D. only | Wet | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2019-May-31, Fri,22:14 | Clear | Turning movement | P.D. only | Dry | East | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Jun-23, Sun,20:45 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Changing lanes | Automobile, station wagon | Other motor vehicle | |
| 2019-Jun-28, Fri,10:10 | Clear | Turning movement | P.D. only | Dry | West | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Jun-28, Fri,15:30 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Jul-17, Wed,19:41 | Clear | Rear end | P.D. only | Dry | South | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2019-Jul-31, Wed,12:05 | Clear | Sideswipe | P.D. only | Dry | North | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2019-Aug-28, Wed,22:30 | Clear | Rear end | P.D. only | Dry | East | Turning right | Pick-up truck | Other motor vehicle | 0 |
| | | | | | East | Turning right | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2019 **To:** December 31, 2019

**Location:** RIVERSIDE DR @ BROOKFIELD RD/HOG'S BACK RD

**Traffic Control:** Traffic signal **Total Collisions:** 14

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2019-Oct-03, Thu,16:12 | Clear | Rear end | P.D. only | Dry | North | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2019-Oct-07, Mon,15:35 | Clear | Rear end | Non-fatal injury | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2019-Oct-24, Thu,17:55 | Clear | Rear end | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2019-Dec-11, Wed,17:36 | Freezing Rain | Rear end | P.D. only | Ice | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2019-Dec-13, Fri,16:30 | Clear | Rear end | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |

**Location:** RIVERSIDE DR btwn BAYPORT PRIV & MOONEY'S BAY PL

**Traffic Control:** No control **Total Collisions:** 1

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2019-Jul-13, Sat,14:30 | Clear | Rear end | P.D. only | Dry | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Passenger van | Other motor vehicle | |
| | | | | | South | Stopped | Passenger van | Other motor vehicle | |

**Location:** RIVERSIDE DR btwn HOG'S BACK RD & RIDGEWOOD AVE

**Traffic Control:** No control **Total Collisions:** 4

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2019-Feb-19, Tue,14:51 | Clear | Rear end | P.D. only | Loose snow | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2019 **To:** December 31, 2019

**Location:** RIVERSIDE DR btwn HOG'S BACK RD & RIDGEWOOD AVE

**Traffic Control:** No control **Total Collisions:** 4

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2019-Jul-19, Fri,06:59 | Clear | Sideswipe | P.D. only | Dry | North | Changing lanes | Truck - closed | Other motor vehicle | 0 |
| | | | | | North | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2019-Jul-26, Fri,09:31 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Nov-16, Sat,03:46 | Clear | SMV other | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Ran off road | 0 |

# Appendix E

TDM CHECKLISTS

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

***Legend***

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

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

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

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

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

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

***Legend***

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

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

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

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

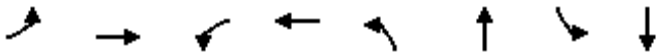
| | | | TDM measures: *Residential developments* | Check if proposed & add descriptions |
|---|---|---|---|---|
| | | **3.** | **TRANSIT** | |
| | | **3.1** | **Transit information** | |
| BASIC | | 3.1.1 | Display relevant transit schedules and route maps at entrances *(multi-family, condominium)* | ☑ |
| BETTER | | 3.1.2 | Provide real-time arrival information display at entrances *(multi-family, condominium)* | ☐ |
| | | **3.2** | **Transit fare incentives** | |
| BASIC | ★ | 3.2.1 | Offer PRESTO cards preloaded with one monthly transit pass on residence purchase/move-in, to encourage residents to use transit | ☑ |
| BETTER | | 3.2.2 | Offer at least one year of free monthly transit passes on residence purchase/move-in | ☑ |
| | | **3.3** | **Enhanced public transit service** | |
| BETTER | ★ | 3.3.1 | Contract with OC Transpo to provide early transit services until regular services are warranted by occupancy levels *(subdivision)* | ☑ |
| | | **3.4** | **Private transit service** | |
| BETTER | | 3.4.1 | Provide shuttle service for seniors homes or lifestyle communities (e.g. scheduled mall or supermarket runs) | ☐ |
| | | **4.** | **CARSHARING & BIKESHARING** | |
| | | **4.1** | **Bikeshare stations & memberships** | |
| BETTER | | 4.1.1 | Contract with provider to install on-site bikeshare station (*multi-family)* | ☑ |
| BETTER | | 4.1.2 | Provide residents with bikeshare memberships, either free or subsidized *(multi-family)* | ☑ |
| | | **4.2** | **Carshare vehicles & memberships** | |
| BETTER | | 4.2.1 | Contract with provider to install on-site carshare vehicles and promote their use by residents | ☑ |
| BETTER | | 4.2.2 | Provide residents with carshare memberships, either free or subsidized | ☑ |
| | | **5.** | **PARKING** | |
| | | **5.1** | **Priced parking** | |
| BASIC | ★ | 5.1.1 | Unbundle parking cost from purchase price *(condominium)* | ☑ |
| BASIC | ★ | 5.1.2 | Unbundle parking cost from monthly rent *(multi-family)* | ☑ |

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

# Appendix F

SYNCHRO AND SIDRA ANALYSIS REPORTS

# Existing Conditions

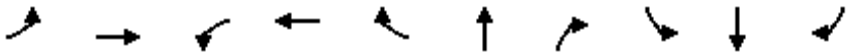


| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 68 | 25 | 97 | 28 | 472 | 1279 | 279 | 654 |
| Future Volume (vph) | 68 | 25 | 97 | 28 | 472 | 1279 | 279 | 654 |
| Lane Group Flow (vph) | 76 | 165 | 108 | 217 | 524 | 1883 | 310 | 1154 |
| Turn Type | pm+pt | NA | Perm | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | 4 | | 8 | | | | | |
| Detector Phase | 7 | 4 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 11.2 | 36.7 | 36.7 | 36.7 | 11.1 | 25.6 | 11.1 | 25.6 |
| Total Split (s) | 15.0 | 52.0 | 37.0 | 37.0 | 32.0 | 48.0 | 20.0 | 36.0 |
| Total Split (%) | 12.5% | 43.3% | 30.8% | 30.8% | 26.7% | 40.0% | 16.7% | 30.0% |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.9 | 3.4 | 3.4 | 3.4 | 2.4 | 1.9 | 2.4 | 1.9 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.2 | 6.7 | 6.7 | 6.7 | 6.1 | 5.6 | 6.1 | 5.6 |
| Lead/Lag | Lead | | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | C-Max | None | C-Max |
| Act Effct Green (s) | 29.3 | 28.8 | 16.8 | 16.8 | 42.4 | 42.4 | 30.4 | 30.4 |
| Actuated g/C Ratio | 0.24 | 0.24 | 0.14 | 0.14 | 0.35 | 0.35 | 0.25 | 0.25 |
| v/c Ratio | 0.39 | 0.35 | 0.66 | 0.58 | 0.88 | 1.10 | 0.72 | 0.92 |
| Control Delay | 38.2 | 9.8 | 67.1 | 15.7 | 35.7 | 97.1 | 54.4 | 51.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 38.2 | 9.8 | 67.1 | 15.7 | 35.7 | 97.1 | 54.4 | 51.9 |
| LOS | D | A | E | B | D | F | D | D |
| Approach Delay | | 18.7 | | 32.8 | | 83.7 | | 52.4 |
| Approach LOS | | B | | C | | F | | D |
| Queue Length 50th (m) | 13.8 | 5.0 | 24.5 | 6.5 | 112.3 | ~186.5 | 69.1 | 88.6 |
| Queue Length 95th (m) | 23.8 | 19.7 | 40.7 | 27.6 | m#168.8 | m#214.2 | #139.3 | #115.4 |
| Internal Link Dist (m) | | 228.4 | | 515.1 | | 121.4 | | 276.2 |
| Turn Bay Length (m) | 15.0 | | | | 135.0 | | 160.0 | |
| Base Capacity (vph) | 201 | 674 | 294 | 531 | 598 | 1705 | 429 | 1252 |
| 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 | 0.38 | 0.24 | 0.37 | 0.41 | 0.88 | 1.10 | 0.72 | 0.92 |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 91 (76%), Referenced to phase 2:NBT and 6:SBT, Start of Green | |
| Natural Cycle: 145 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 1.10 | |
| Intersection Signal Delay: 66.1 | Intersection LOS: E |
| Intersection Capacity Utilization 90.8% | ICU Level of Service E |
| Analysis Period (min) 15 | |

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Riverside Dr & Hog's Back Rd/Brookfield Rd



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | NBR | SBL | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 4 | 0 | 21 | 0 | 91 | 2081 | 72 | 32 | 699 | 7 | |
| Future Volume (vph) | 4 | 0 | 21 | 0 | 91 | 2081 | 72 | 32 | 699 | 7 | |
| Lane Group Flow (vph) | 4 | 1 | 0 | 23 | 101 | 2312 | 80 | 36 | 777 | 8 | |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | Prot | NA | Perm | |
| Protected Phases | | 4 | | 8 | | 2 | | 1 | 6 | | 5 |
| Permitted Phases | 4 | | 8 | | 8 | | 2 | | | 6 | |
| Detector Phase | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 1 | 6 | 6 | |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 |
| Minimum Split (s) | 30.8 | 30.8 | 30.8 | 30.8 | 30.8 | 26.6 | 26.6 | 10.8 | 26.6 | 26.6 | 10.8 |
| Total Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 75.0 | 75.0 | 14.0 | 75.0 | 75.0 | 14.0 |
| Total Split (%) | 25.8% | 25.8% | 25.8% | 25.8% | 25.8% | 62.5% | 62.5% | 11.7% | 62.5% | 62.5% | 12% |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 1.9 | 1.9 | 2.1 | 1.9 | 1.9 | 2.1 |
| Lost Time Adjust (s) | 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 | 6.8 | 5.6 | 5.6 | 5.8 | 5.6 | 5.6 | |
| Lead/Lag | | | | | | Lag | Lag | Lead | Lag | Lag | Lead |
| Lead-Lag Optimize? | | | | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | C-Max | C-Max | None | C-Max | C-Max | None |
| Act Effct Green (s) | 10.3 | 10.3 | | 10.3 | 10.3 | 88.3 | 88.3 | 8.0 | 97.3 | 97.3 | |
| Actuated g/C Ratio | 0.09 | 0.09 | | 0.09 | 0.09 | 0.74 | 0.74 | 0.07 | 0.81 | 0.81 | |
| v/c Ratio | 0.04 | 0.00 | | 0.20 | 0.45 | 0.93 | 0.07 | 0.32 | 0.28 | 0.01 | |
| Control Delay | 50.8 | 0.0 | | 55.2 | 16.8 | 23.2 | 1.4 | 50.9 | 1.6 | 0.0 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 50.8 | 0.0 | | 55.2 | 16.8 | 23.2 | 1.4 | 50.9 | 1.6 | 0.0 | |
| LOS | D | A | | E | B | C | A | D | A | A | |
| Approach Delay | | 40.6 | | 23.9 | | 22.5 | | | 3.8 | | |
| Approach LOS | | D | | C | | C | | | A | | |
| Queue Length 50th (m) | 0.9 | 0.0 | | 5.2 | 0.0 | 243.6 | 0.0 | 8.7 | 14.8 | 0.0 | |
| Queue Length 95th (m) | 4.4 | 0.0 | | 13.4 | 16.4 | #347.3 | 4.4 | m11.6 | m13.7 | m0.0 | |
| Internal Link Dist (m) | | 58.8 | | 118.5 | | 110.2 | | | 196.4 | | |
| Turn Bay Length (m) | | | | | 35.0 | | 50.0 | 90.0 | | 55.0 | |
| Base Capacity (vph) | 267 | 531 | | 272 | 386 | 2494 | 1139 | 125 | 2749 | 1247 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.01 | 0.00 | | 0.08 | 0.26 | 0.93 | 0.07 | 0.29 | 0.28 | 0.01 | |

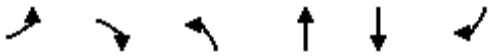
| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 100 (83%), Referenced to phase 2:NBT and 6:SBT, Start of Green | |
| Natural Cycle: 150 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.93 | |
| Intersection Signal Delay: 18.0 | Intersection LOS: B |
| Intersection Capacity Utilization 93.4% | ICU Level of Service F |
| Analysis Period (min) 15 | |

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Riverside Dr & Ridgewood Ave

| Lane Group | EBL | NBT | SBT |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | 45 | 86 | 59 |
| Future Volume (vph) | 45 | 86 | 59 |
| Lane Group Flow (vph) | 82 | 165 | 102 |
| Sign Control | Stop | Stop | Stop |

| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization | 26.2% | ICU Level of Service A |
| Analysis Period (min) | 15 | |



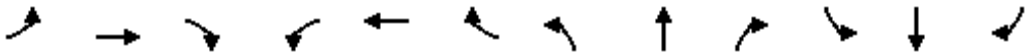
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Stop | Stop | |
| Traffic Volume (vph) | 45 | 29 | 62 | 86 | 59 | 32 |
| Future Volume (vph) | 45 | 29 | 62 | 86 | 59 | 32 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Hourly flow rate (vph) | 50 | 32 | 69 | 96 | 66 | 36 |

| Direction, Lane # | EB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total (vph) | 82 | 165 | 102 |
| Volume Left (vph) | 50 | 69 | 0 |
| Volume Right (vph) | 32 | 0 | 36 |
| Hadj (s) | -0.08 | 0.12 | -0.18 |
| Departure Headway (s) | 4.4 | 4.3 | 4.1 |
| Degree Utilization, x | 0.10 | 0.20 | 0.12 |
| Capacity (veh/h) | 760 | 810 | 855 |
| Control Delay (s) | 7.9 | 8.4 | 7.6 |
| Approach Delay (s) | 7.9 | 8.4 | 7.6 |
| Approach LOS | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.0 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 26.2% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Configurations | | | | |
| Traffic Volume (vph) | 3 | 3 | 45 | 17 |
| Future Volume (vph) | 3 | 3 | 45 | 17 |
| Lane Group Flow (vph) | 202 | 15 | 54 | 97 |
| Sign Control | Stop | Stop | Stop | Stop |

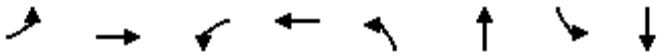
| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 29.9% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 178 | 3 | 1 | 0 | 3 | 11 | 4 | 45 | 0 | 2 | 17 | 68 |
| Future Volume (vph) | 178 | 3 | 1 | 0 | 3 | 11 | 4 | 45 | 0 | 2 | 17 | 68 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Hourly flow rate (vph) | 198 | 3 | 1 | 0 | 3 | 12 | 4 | 50 | 0 | 2 | 19 | 76 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 202 | 15 | 54 | 97 |
| Volume Left (vph) | 198 | 0 | 4 | 2 |
| Volume Right (vph) | 1 | 12 | 0 | 76 |
| Hadj (s) | 0.23 | -0.45 | 0.05 | -0.43 |
| Departure Headway (s) | 4.5 | 4.0 | 4.6 | 4.0 |
| Degree Utilization, x | 0.25 | 0.02 | 0.07 | 0.11 |
| Capacity (veh/h) | 780 | 837 | 742 | 832 |
| Control Delay (s) | 9.0 | 7.1 | 7.9 | 7.5 |
| Approach Delay (s) | 9.0 | 7.1 | 7.9 | 7.5 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Delay | 8.4 | | | |
| Level of Service | A | | | |
| Intersection Capacity Utilization | 29.9% | ICU Level of Service | A | |
| Analysis Period (min) | 15 | | | |

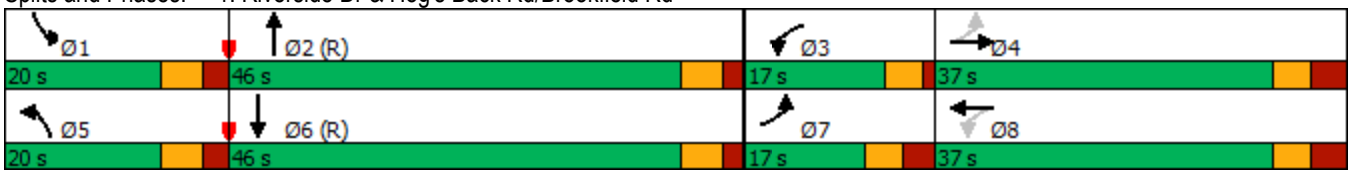


| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 159 | 34 | 309 | 14 | 129 | 670 | 202 | 1270 |
| Future Volume (vph) | 159 | 34 | 309 | 14 | 129 | 670 | 202 | 1270 |
| Lane Group Flow (vph) | 177 | 445 | 343 | 350 | 143 | 875 | 224 | 1554 |
| Turn Type | pm+pt | NA | pm+pt | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | 4 | | 8 | | | | | |
| 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 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 11.2 | 36.7 | 9.5 | 36.7 | 11.1 | 25.6 | 11.1 | 25.6 |
| Total Split (s) | 17.0 | 37.0 | 17.0 | 37.0 | 20.0 | 46.0 | 20.0 | 46.0 |
| Total Split (%) | 14.2% | 30.8% | 14.2% | 30.8% | 16.7% | 38.3% | 16.7% | 38.3% |
| Yellow Time (s) | 3.3 | 3.3 | 3.5 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.9 | 3.4 | 1.0 | 3.4 | 2.4 | 1.9 | 2.4 | 1.9 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.2 | 6.7 | 4.5 | 6.7 | 6.1 | 5.6 | 6.1 | 5.6 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | C-Max | None | C-Max |
| Act Effct Green (s) | 34.2 | 23.0 | 37.8 | 23.1 | 13.5 | 41.3 | 20.3 | 48.1 |
| Actuated g/C Ratio | 0.28 | 0.19 | 0.32 | 0.19 | 0.11 | 0.34 | 0.17 | 0.40 |
| v/c Ratio | 0.84 | 0.90 | 1.42 | 0.65 | 0.75 | 0.53 | 0.78 | 0.80 |
| Control Delay | 61.0 | 43.0 | 238.8 | 13.3 | 66.6 | 43.4 | 68.7 | 37.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 61.0 | 43.0 | 238.8 | 13.3 | 66.6 | 43.4 | 68.7 | 37.0 |
| LOS | E | D | F | B | E | D | E | D |
| Approach Delay | | 48.1 | | 124.9 | | 46.7 | | 41.0 |
| Approach LOS | | D | | F | | D | | D |
| Queue Length 50th (m) | 30.0 | 49.1 | ~91.4 | 9.6 | 32.5 | 78.4 | 51.4 | 122.8 |
| Queue Length 95th (m) | #53.7 | #87.7 | #141.6 | 36.8 | #63.0 | 91.8 | #110.2 | #161.7 |
| Internal Link Dist (m) | | 228.4 | | 515.1 | | 121.4 | | 276.2 |
| Turn Bay Length (m) | 15.0 | | | | 135.0 | | 160.0 | |
| Base Capacity (vph) | 213 | 571 | 242 | 611 | 202 | 1658 | 287 | 1934 |
| 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 | 0.83 | 0.78 | 1.42 | 0.57 | 0.71 | 0.53 | 0.78 | 0.80 |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 84 (70%), Referenced to phase 2:NBT and 6:SBT, Start of Green | |
| Natural Cycle: 125 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 1.42 | |
| Intersection Signal Delay: 57.6 | Intersection LOS: E |
| Intersection Capacity Utilization 99.4% | ICU Level of Service F |
| Analysis Period (min) 15 | |

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Riverside Dr & Hog's Back Rd/Brookfield Rd



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 7 | 0 | 44 | 1 | 43 | 3 | 896 | 29 | 45 | 1694 | 8 |
| Future Volume (vph) | 7 | 0 | 44 | 1 | 43 | 3 | 896 | 29 | 45 | 1694 | 8 |
| Lane Group Flow (vph) | 8 | 6 | 0 | 50 | 48 | 3 | 996 | 32 | 50 | 1882 | 9 |
| Turn Type | Perm | NA | Perm | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | | 4 | | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | 8 | | 8 | | | 2 | | | 6 |
| Detector Phase | 4 | 4 | 8 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 30.8 | 30.8 | 30.8 | 30.8 | 30.8 | 10.8 | 26.6 | 26.6 | 10.8 | 26.6 | 26.6 |
| Total Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 14.0 | 75.0 | 75.0 | 14.0 | 75.0 | 75.0 |
| Total Split (%) | 25.8% | 25.8% | 25.8% | 25.8% | 25.8% | 11.7% | 62.5% | 62.5% | 11.7% | 62.5% | 62.5% |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 2.1 | 1.9 | 1.9 | 2.1 | 1.9 | 1.9 |
| 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) | 6.8 | 6.8 | | 6.8 | 6.8 | 5.8 | 5.6 | 5.6 | 5.8 | 5.6 | 5.6 |
| Lead/Lag | | | | | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | | | | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | C-Max | C-Max | None | C-Max | C-Max |
| Act Effct Green (s) | 11.2 | 11.2 | | 11.2 | 11.2 | 5.8 | 88.4 | 88.4 | 8.9 | 98.4 | 98.4 |
| Actuated g/C Ratio | 0.09 | 0.09 | | 0.09 | 0.09 | 0.05 | 0.74 | 0.74 | 0.07 | 0.82 | 0.82 |
| v/c Ratio | 0.07 | 0.02 | | 0.41 | 0.23 | 0.04 | 0.40 | 0.03 | 0.40 | 0.68 | 0.01 |
| Control Delay | 49.6 | 0.2 | | 61.4 | 6.6 | 55.0 | 8.8 | 0.0 | 60.2 | 6.0 | 0.0 |
| 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 | 0.2 | | 61.4 | 6.6 | 55.0 | 8.8 | 0.0 | 60.2 | 6.0 | 0.0 |
| LOS | D | A | | E | A | D | A | A | E | A | A |
| Approach Delay | | 28.4 | | 34.6 | | | 8.6 | | | 7.4 | |
| Approach LOS | | C | | C | | | A | | | A | |
| Queue Length 50th (m) | 1.8 | 0.0 | | 11.4 | 0.0 | 0.7 | 48.7 | 0.0 | 12.2 | 37.1 | 0.0 |
| Queue Length 95th (m) | 6.5 | 0.0 | | 23.5 | 4.9 | 3.9 | 75.4 | 0.0 | m14.1 | m49.5 | m0.0 |
| Internal Link Dist (m) | | 58.8 | | 118.5 | | | 110.2 | | | 196.4 | |
| Turn Bay Length (m) | | | | | 35.0 | 50.0 | | 50.0 | 90.0 | | 55.0 |
| Base Capacity (vph) | 260 | 407 | | 261 | 366 | 115 | 2497 | 1140 | 135 | 2780 | 1259 |
| 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 | 0.03 | 0.01 | | 0.19 | 0.13 | 0.03 | 0.40 | 0.03 | 0.37 | 0.68 | 0.01 |

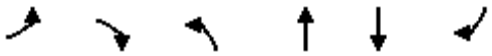
| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 112 (93%), Referenced to phase 2:NBT and 6:SBT, Start of Green | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.68 | |
| Intersection Signal Delay: 8.8 | Intersection LOS: A |
| Intersection Capacity Utilization 69.1% | ICU Level of Service C |
| Analysis Period (min) 15 | |

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Riverside Dr & Ridgewood Ave

| Lane Group | EBL | NBT | SBT |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | 25 | 46 | 239 |
| Future Volume (vph) | 25 | 46 | 239 |
| Lane Group Flow (vph) | 78 | 94 | 303 |
| Sign Control | Stop | Stop | Stop |

| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 34.6% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |



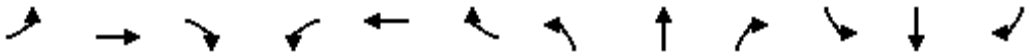
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Stop | Stop | |
| Traffic Volume (vph) | 25 | 45 | 39 | 46 | 239 | 33 |
| Future Volume (vph) | 25 | 45 | 39 | 46 | 239 | 33 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Hourly flow rate (vph) | 28 | 50 | 43 | 51 | 266 | 37 |

| Direction, Lane # | EB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total (vph) | 78 | 94 | 303 |
| Volume Left (vph) | 28 | 43 | 0 |
| Volume Right (vph) | 50 | 0 | 37 |
| Hadj (s) | -0.28 | 0.13 | -0.04 |
| Departure Headway (s) | 4.5 | 4.5 | 4.2 |
| Degree Utilization, x | 0.10 | 0.12 | 0.35 |
| Capacity (veh/h) | 733 | 766 | 841 |
| Control Delay (s) | 8.0 | 8.1 | 9.4 |
| Approach Delay (s) | 8.0 | 8.1 | 9.4 |
| Approach LOS | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.9 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 34.6% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Configurations | | | | |
| Traffic Volume (vph) | 2 | 4 | 23 | 80 |
| Future Volume (vph) | 2 | 4 | 23 | 80 |
| Lane Group Flow (vph) | 98 | 8 | 27 | 390 |
| Sign Control | Stop | Stop | Stop | Stop |

| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization | 43.4% | ICU Level of Service A |
| Analysis Period (min) | 15 | |

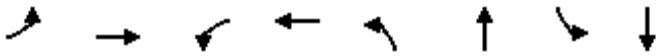


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 79 | 2 | 7 | 0 | 4 | 4 | 1 | 23 | 0 | 8 | 80 | 263 |
| Future Volume (vph) | 79 | 2 | 7 | 0 | 4 | 4 | 1 | 23 | 0 | 8 | 80 | 263 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Hourly flow rate (vph) | 88 | 2 | 8 | 0 | 4 | 4 | 1 | 26 | 0 | 9 | 89 | 292 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 98 | 8 | 27 | 390 |
| Volume Left (vph) | 88 | 0 | 1 | 9 |
| Volume Right (vph) | 8 | 4 | 0 | 292 |
| Hadj (s) | 0.16 | -0.27 | 0.04 | -0.41 |
| Departure Headway (s) | 4.9 | 4.6 | 4.6 | 3.8 |
| Degree Utilization, x | 0.13 | 0.01 | 0.03 | 0.41 |
| Capacity (veh/h) | 672 | 697 | 744 | 929 |
| Control Delay (s) | 8.7 | 7.7 | 7.7 | 9.4 |
| Approach Delay (s) | 8.7 | 7.7 | 7.7 | 9.4 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 9.2 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 43.4% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

# Total Future Background 2024

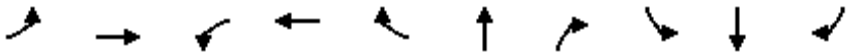


| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 70 | 34 | 101 | 45 | 486 | 1389 | 295 | 715 |
| Future Volume (vph) | 70 | 34 | 101 | 45 | 486 | 1389 | 295 | 715 |
| Lane Group Flow (vph) | 70 | 161 | 101 | 233 | 486 | 1818 | 295 | 1111 |
| Turn Type | pm+pt | NA | Perm | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | 4 | | 8 | | | | | |
| Detector Phase | 7 | 4 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 11.2 | 36.7 | 36.7 | 36.7 | 11.1 | 25.6 | 11.1 | 25.6 |
| Total Split (s) | 15.0 | 52.0 | 37.0 | 37.0 | 32.0 | 48.0 | 20.0 | 36.0 |
| Total Split (%) | 12.5% | 43.3% | 30.8% | 30.8% | 26.7% | 40.0% | 16.7% | 30.0% |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.9 | 3.4 | 3.4 | 3.4 | 2.4 | 1.9 | 2.4 | 1.9 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.2 | 6.7 | 6.7 | 6.7 | 6.1 | 5.6 | 6.1 | 5.6 |
| Lead/Lag | Lead | | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | C-Max | None | C-Max |
| Act Effct Green (s) | 28.6 | 28.1 | 16.2 | 16.2 | 43.1 | 42.4 | 31.1 | 30.4 |
| Actuated g/C Ratio | 0.24 | 0.23 | 0.14 | 0.14 | 0.36 | 0.35 | 0.26 | 0.25 |
| v/c Ratio | 0.40 | 0.35 | 0.64 | 0.65 | 0.80 | 1.07 | 0.67 | 0.89 |
| Control Delay | 39.2 | 10.9 | 66.7 | 23.4 | 31.8 | 83.5 | 51.3 | 48.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 39.2 | 10.9 | 66.7 | 23.4 | 31.8 | 83.5 | 51.3 | 48.6 |
| LOS | D | B | E | C | C | F | D | D |
| Approach Delay | | 19.5 | | 36.5 | | 72.6 | | 49.2 |
| Approach LOS | | B | | D | | E | | D |
| Queue Length 50th (m) | 12.8 | 6.1 | 22.9 | 14.1 | 104.9 | ~174.4 | 64.5 | 84.4 |
| Queue Length 95th (m) | 22.4 | 21.0 | 38.7 | 37.5 | m#157.9 | #204.7 | #127.5 | #105.1 |
| Internal Link Dist (m) | | 228.4 | | 515.1 | | 121.4 | | 276.2 |
| Turn Bay Length (m) | 15.0 | | | | 135.0 | | 160.0 | |
| Base Capacity (vph) | 184 | 673 | 295 | 521 | 608 | 1707 | 439 | 1251 |
| 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 | 0.38 | 0.24 | 0.34 | 0.45 | 0.80 | 1.07 | 0.67 | 0.89 |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 91 (76%), Referenced to phase 2:NBT and 6:SBT, Start of Green | |
| Natural Cycle: 135 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 1.07 | |
| Intersection Signal Delay: 59.2 | Intersection LOS: E |
| Intersection Capacity Utilization 95.1% | ICU Level of Service F |
| Analysis Period (min) 15 | |

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Riverside Dr & Hog's Back Rd/Brookfield Rd



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | NBR | SBL | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 4 | 0 | 24 | 0 | 103 | 2204 | 76 | 33 | 761 | 7 | |
| Future Volume (vph) | 4 | 0 | 24 | 0 | 103 | 2204 | 76 | 33 | 761 | 7 | |
| Lane Group Flow (vph) | 4 | 1 | 0 | 24 | 103 | 2204 | 76 | 33 | 761 | 7 | |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | Prot | NA | Perm | |
| Protected Phases | | 4 | | 8 | | 2 | | 1 | 6 | | 5 |
| Permitted Phases | 4 | | 8 | | 8 | | 2 | | | 6 | |
| Detector Phase | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 1 | 6 | 6 | |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 |
| Minimum Split (s) | 30.8 | 30.8 | 30.8 | 30.8 | 30.8 | 26.6 | 26.6 | 10.8 | 26.6 | 26.6 | 10.8 |
| Total Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 75.0 | 75.0 | 14.0 | 75.0 | 75.0 | 14.0 |
| Total Split (%) | 25.8% | 25.8% | 25.8% | 25.8% | 25.8% | 62.5% | 62.5% | 11.7% | 62.5% | 62.5% | 12% |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 1.9 | 1.9 | 2.1 | 1.9 | 1.9 | 2.1 |
| Lost Time Adjust (s) | 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 | 6.8 | 5.6 | 5.6 | 5.8 | 5.6 | 5.6 | |
| Lead/Lag | | | | | | Lag | Lag | Lead | Lag | Lag | Lead |
| Lead-Lag Optimize? | | | | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | C-Max | C-Max | None | C-Max | C-Max | None |
| Act Effct Green (s) | 10.3 | 10.3 | | 10.3 | 10.3 | 88.4 | 88.4 | 7.8 | 97.3 | 97.3 | |
| Actuated g/C Ratio | 0.09 | 0.09 | | 0.09 | 0.09 | 0.74 | 0.74 | 0.06 | 0.81 | 0.81 | |
| v/c Ratio | 0.04 | 0.00 | | 0.21 | 0.46 | 0.88 | 0.07 | 0.30 | 0.28 | 0.01 | |
| Control Delay | 50.8 | 0.0 | | 55.5 | 16.7 | 19.4 | 1.2 | 50.8 | 1.6 | 0.0 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 50.8 | 0.0 | | 55.5 | 16.7 | 19.4 | 1.2 | 50.8 | 1.6 | 0.0 | |
| LOS | D | A | | E | B | B | A | D | A | A | |
| Approach Delay | | 40.6 | | 24.1 | | 18.8 | | | 3.6 | | |
| Approach LOS | | D | | C | | B | | | A | | |
| Queue Length 50th (m) | 0.9 | 0.0 | | 5.4 | 0.0 | 209.7 | 0.0 | 8.2 | 14.0 | 0.0 | |
| Queue Length 95th (m) | 4.4 | 0.0 | | 13.8 | 16.4 | #318.6 | 4.0 | m10.9 | m14.1 | m0.0 | |
| Internal Link Dist (m) | | 58.8 | | 118.5 | | 110.2 | | | 196.4 | | |
| Turn Bay Length (m) | | | | | 35.0 | | 50.0 | 90.0 | | 55.0 | |
| Base Capacity (vph) | 267 | 536 | | 272 | 388 | 2497 | 1140 | 124 | 2749 | 1247 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.01 | 0.00 | | 0.09 | 0.27 | 0.88 | 0.07 | 0.27 | 0.28 | 0.01 | |

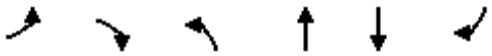
| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 100 (83%), Referenced to phase 2:NBT and 6:SBT, Start of Green | |
| Natural Cycle: 130 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.88 | |
| Intersection Signal Delay: 15.2 | Intersection LOS: B |
| Intersection Capacity Utilization 97.0% | ICU Level of Service F |
| Analysis Period (min) 15 | |

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Riverside Dr & Ridgewood Ave

| Lane Group | EBL | NBT | SBT |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | 46 | 88 | 61 |
| Future Volume (vph) | 46 | 88 | 61 |
| Lane Group Flow (vph) | 79 | 163 | 95 |
| Sign Control | Stop | Stop | Stop |

| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization | 27.4% | ICU Level of Service A |
| Analysis Period (min) | 15 | |



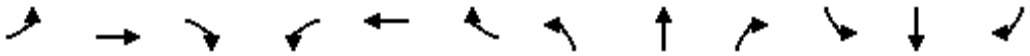
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Stop | Stop | |
| Traffic Volume (vph) | 46 | 33 | 75 | 88 | 61 | 34 |
| Future Volume (vph) | 46 | 33 | 75 | 88 | 61 | 34 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly flow rate (vph) | 46 | 33 | 75 | 88 | 61 | 34 |

| Direction, Lane # | EB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total (vph) | 79 | 163 | 95 |
| Volume Left (vph) | 46 | 75 | 0 |
| Volume Right (vph) | 33 | 0 | 34 |
| Hadj (s) | -0.10 | 0.13 | -0.18 |
| Departure Headway (s) | 4.4 | 4.3 | 4.1 |
| Degree Utilization, x | 0.10 | 0.20 | 0.11 |
| Capacity (veh/h) | 778 | 812 | 858 |
| Control Delay (s) | 7.8 | 8.3 | 7.6 |
| Approach Delay (s) | 7.8 | 8.3 | 7.6 |
| Approach LOS | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.0 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 27.4% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Configurations | | | | |
| Traffic Volume (vph) | 3 | 3 | 45 | 17 |
| Future Volume (vph) | 3 | 3 | 45 | 17 |
| Lane Group Flow (vph) | 207 | 14 | 49 | 98 |
| Sign Control | Stop | Stop | Stop | Stop |

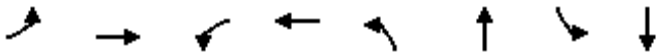
| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 32.1% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 203 | 3 | 1 | 0 | 3 | 11 | 4 | 45 | 0 | 2 | 17 | 79 |
| Future Volume (vph) | 203 | 3 | 1 | 0 | 3 | 11 | 4 | 45 | 0 | 2 | 17 | 79 |
| Peak Hour 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 |
| Hourly flow rate (vph) | 203 | 3 | 1 | 0 | 3 | 11 | 4 | 45 | 0 | 2 | 17 | 79 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 207 | 14 | 49 | 98 |
| Volume Left (vph) | 203 | 0 | 4 | 2 |
| Volume Right (vph) | 1 | 11 | 0 | 79 |
| Hadj (s) | 0.23 | -0.44 | 0.05 | -0.45 |
| Departure Headway (s) | 4.5 | 4.0 | 4.6 | 4.0 |
| Degree Utilization, x | 0.26 | 0.02 | 0.06 | 0.11 |
| Capacity (veh/h) | 782 | 837 | 740 | 834 |
| Control Delay (s) | 9.0 | 7.1 | 7.9 | 7.5 |
| Approach Delay (s) | 9.0 | 7.1 | 7.9 | 7.5 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Delay | 8.4 | | | |
| Level of Service | A | | | |
| Intersection Capacity Utilization | 32.1% | ICU Level of Service | A | |
| Analysis Period (min) | 15 | | | |

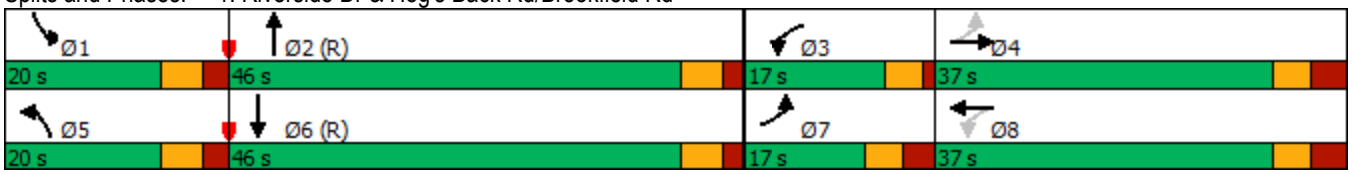


| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 164 | 51 | 321 | 28 | 133 | 754 | 224 | 1380 |
| Future Volume (vph) | 164 | 51 | 321 | 28 | 133 | 754 | 224 | 1380 |
| Lane Group Flow (vph) | 164 | 428 | 321 | 352 | 133 | 878 | 224 | 1513 |
| Turn Type | pm+pt | NA | pm+pt | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | 4 | | 8 | | | | | |
| 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 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 11.2 | 36.7 | 9.5 | 36.7 | 11.1 | 25.6 | 11.1 | 25.6 |
| Total Split (s) | 17.0 | 37.0 | 17.0 | 37.0 | 20.0 | 46.0 | 20.0 | 46.0 |
| Total Split (%) | 14.2% | 30.8% | 14.2% | 30.8% | 16.7% | 38.3% | 16.7% | 38.3% |
| Yellow Time (s) | 3.3 | 3.3 | 3.5 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.9 | 3.4 | 1.0 | 3.4 | 2.4 | 1.9 | 2.4 | 1.9 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.2 | 6.7 | 4.5 | 6.7 | 6.1 | 5.6 | 6.1 | 5.6 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | C-Max | None | C-Max |
| Act Effct Green (s) | 32.5 | 21.4 | 36.4 | 21.7 | 13.4 | 41.8 | 21.4 | 49.8 |
| Actuated g/C Ratio | 0.27 | 0.18 | 0.30 | 0.18 | 0.11 | 0.35 | 0.18 | 0.42 |
| v/c Ratio | 0.78 | 0.89 | 1.33 | 0.67 | 0.70 | 0.52 | 0.74 | 0.76 |
| Control Delay | 54.8 | 40.9 | 203.5 | 13.8 | 61.8 | 43.1 | 64.0 | 34.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 54.8 | 40.9 | 203.5 | 13.8 | 61.8 | 43.1 | 64.0 | 34.4 |
| LOS | D | D | F | B | E | D | E | C |
| Approach Delay | | 44.8 | | 104.2 | | 45.6 | | 38.3 |
| Approach LOS | | D | | F | | D | | D |
| Queue Length 50th (m) | 28.6 | 44.2 | ~80.6 | 9.2 | 30.2 | 78.9 | 50.1 | 112.3 |
| Queue Length 95th (m) | #43.2 | 79.3 | #126.5 | 35.9 | #56.4 | 92.4 | #110.2 | #154.1 |
| Internal Link Dist (m) | | 228.4 | | 515.1 | | 121.4 | | 276.2 |
| Turn Bay Length (m) | 15.0 | | | | 135.0 | | 160.0 | |
| Base Capacity (vph) | 213 | 575 | 241 | 617 | 205 | 1678 | 302 | 2001 |
| 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 | 0.77 | 0.74 | 1.33 | 0.57 | 0.65 | 0.52 | 0.74 | 0.76 |

| Intersection Summary | | |
|---|---|---|
| Cycle Length: 120 | | |
| Actuated Cycle Length: 120 | | |
| Offset: 84 (70%), Referenced to phase 2:NBT and 6:SBT, Start of Green | | |
| Natural Cycle: 115 | | |
| Control Type: Actuated-Coordinated | | |
| Maximum v/c Ratio: 1.33 | | |
| Intersection Signal Delay: 52.1 | Intersection LOS: D | |
| Intersection Capacity Utilization 104.3% | ICU Level of Service G | |
| Analysis Period (min) 15 | | |

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Riverside Dr & Hog's Back Rd/Brookfield Rd



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 7 | 0 | 49 | 1 | 47 | 3 | 985 | 34 | 53 | 1812 | 8 |
| Future Volume (vph) | 7 | 0 | 49 | 1 | 47 | 3 | 985 | 34 | 53 | 1812 | 8 |
| Lane Group Flow (vph) | 7 | 5 | 0 | 50 | 47 | 3 | 985 | 34 | 53 | 1812 | 8 |
| Turn Type | Perm | NA | Perm | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | | 4 | | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | 8 | | 8 | | | 2 | | | 6 |
| Detector Phase | 4 | 4 | 8 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 30.8 | 30.8 | 30.8 | 30.8 | 30.8 | 10.8 | 26.6 | 26.6 | 10.8 | 26.6 | 26.6 |
| Total Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 14.0 | 75.0 | 75.0 | 14.0 | 75.0 | 75.0 |
| Total Split (%) | 25.8% | 25.8% | 25.8% | 25.8% | 25.8% | 11.7% | 62.5% | 62.5% | 11.7% | 62.5% | 62.5% |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 2.1 | 1.9 | 1.9 | 2.1 | 1.9 | 1.9 |
| 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) | 6.8 | 6.8 | | 6.8 | 6.8 | 5.8 | 5.6 | 5.6 | 5.8 | 5.6 | 5.6 |
| Lead/Lag | | | | | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | | | | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | C-Max | C-Max | None | C-Max | C-Max |
| Act Effct Green (s) | 11.2 | 11.2 | | 11.2 | 11.2 | 5.8 | 88.2 | 88.2 | 9.1 | 98.4 | 98.4 |
| Actuated g/C Ratio | 0.09 | 0.09 | | 0.09 | 0.09 | 0.05 | 0.74 | 0.74 | 0.08 | 0.82 | 0.82 |
| v/c Ratio | 0.06 | 0.02 | | 0.41 | 0.22 | 0.04 | 0.40 | 0.03 | 0.41 | 0.65 | 0.01 |
| Control Delay | 49.4 | 0.2 | | 61.4 | 6.2 | 55.0 | 8.8 | 0.1 | 62.6 | 5.4 | 0.0 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 49.4 | 0.2 | | 61.4 | 6.2 | 55.0 | 8.8 | 0.1 | 62.6 | 5.4 | 0.0 |
| LOS | D | A | | E | A | D | A | A | E | A | A |
| Approach Delay | | 28.9 | | 34.6 | | | 8.7 | | | 7.0 | |
| Approach LOS | | C | | C | | | A | | | A | |
| Queue Length 50th (m) | 1.5 | 0.0 | | 11.4 | 0.0 | 0.7 | 48.3 | 0.0 | 13.1 | 33.7 | 0.0 |
| Queue Length 95th (m) | 6.0 | 0.0 | | 23.5 | 4.7 | 3.9 | 75.0 | 0.0 | m15.8 | m46.8 | m0.0 |
| Internal Link Dist (m) | | 58.8 | | 118.5 | | | 110.2 | | | 196.4 | |
| Turn Bay Length (m) | | | | | 35.0 | 50.0 | | 50.0 | 90.0 | | 55.0 |
| Base Capacity (vph) | 260 | 408 | | 261 | 366 | 115 | 2492 | 1138 | 137 | 2780 | 1259 |
| 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 | 0.03 | 0.01 | | 0.19 | 0.13 | 0.03 | 0.40 | 0.03 | 0.39 | 0.65 | 0.01 |

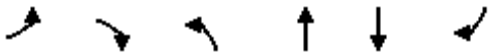
| Intersection Summary | | |
|---|---|---|
| Cycle Length: 120 | | |
| Actuated Cycle Length: 120 | | |
| Offset: 112 (93%), Referenced to phase 2:NBT and 6:SBT, Start of Green | | |
| Natural Cycle: 100 | | |
| Control Type: Actuated-Coordinated | | |
| Maximum v/c Ratio: 0.65 | | |
| Intersection Signal Delay: 8.6 | Intersection LOS: A | |
| Intersection Capacity Utilization 72.8% | ICU Level of Service C | |
| Analysis Period (min) 15 | | |

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Riverside Dr & Ridgewood Ave

| Lane Group | EBL | NBT | SBT |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | 27 | 49 | 243 |
| Future Volume (vph) | 27 | 49 | 243 |
| Lane Group Flow (vph) | 83 | 95 | 278 |
| Sign Control | Stop | Stop | Stop |

| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 36.4% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |



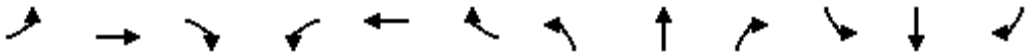
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Stop | Stop | |
| Traffic Volume (vph) | 27 | 56 | 46 | 49 | 243 | 35 |
| Future Volume (vph) | 27 | 56 | 46 | 49 | 243 | 35 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly flow rate (vph) | 27 | 56 | 46 | 49 | 243 | 35 |

| Direction, Lane # | EB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total (vph) | 83 | 95 | 278 |
| Volume Left (vph) | 27 | 46 | 0 |
| Volume Right (vph) | 56 | 0 | 35 |
| Hadj (s) | -0.31 | 0.13 | -0.04 |
| Departure Headway (s) | 4.4 | 4.5 | 4.2 |
| Degree Utilization, x | 0.10 | 0.12 | 0.32 |
| Capacity (veh/h) | 748 | 769 | 838 |
| Control Delay (s) | 7.9 | 8.1 | 9.1 |
| Approach Delay (s) | 7.9 | 8.1 | 9.1 |
| Approach LOS | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.7 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 36.4% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Configurations | | | | |
| Traffic Volume (vph) | 2 | 4 | 23 | 80 |
| Future Volume (vph) | 2 | 4 | 23 | 80 |
| Lane Group Flow (vph) | 104 | 8 | 24 | 376 |
| Sign Control | Stop | Stop | Stop | Stop |

| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization | 46.0% | ICU Level of Service A |
| Analysis Period (min) | 15 | |

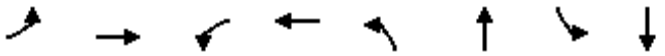


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 95 | 2 | 7 | 0 | 4 | 4 | 1 | 23 | 0 | 8 | 80 | 288 |
| Future Volume (vph) | 95 | 2 | 7 | 0 | 4 | 4 | 1 | 23 | 0 | 8 | 80 | 288 |
| Peak Hour 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 |
| Hourly flow rate (vph) | 95 | 2 | 7 | 0 | 4 | 4 | 1 | 23 | 0 | 8 | 80 | 288 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 104 | 8 | 24 | 376 |
| Volume Left (vph) | 95 | 0 | 1 | 8 |
| Volume Right (vph) | 7 | 4 | 0 | 288 |
| Hadj (s) | 0.18 | -0.27 | 0.04 | -0.42 |
| Departure Headway (s) | 4.9 | 4.6 | 4.6 | 3.8 |
| Degree Utilization, x | 0.14 | 0.01 | 0.03 | 0.40 |
| Capacity (veh/h) | 677 | 705 | 743 | 928 |
| Control Delay (s) | 8.7 | 7.6 | 7.7 | 9.3 |
| Approach Delay (s) | 8.7 | 7.6 | 7.7 | 9.3 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 9.1 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 46.0% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

# Total Future Background 2029

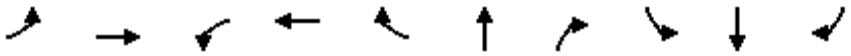


| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 73 | 35 | 106 | 46 | 510 | 1453 | 309 | 747 |
| Future Volume (vph) | 73 | 35 | 106 | 46 | 510 | 1453 | 309 | 747 |
| Lane Group Flow (vph) | 73 | 168 | 106 | 242 | 510 | 1903 | 309 | 1162 |
| Turn Type | pm+pt | NA | Perm | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | 4 | | 8 | | | | | |
| Detector Phase | 7 | 4 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 11.2 | 36.7 | 36.7 | 36.7 | 11.1 | 25.6 | 11.1 | 25.6 |
| Total Split (s) | 15.0 | 52.0 | 37.0 | 37.0 | 32.0 | 48.0 | 20.0 | 36.0 |
| Total Split (%) | 12.5% | 43.3% | 30.8% | 30.8% | 26.7% | 40.0% | 16.7% | 30.0% |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.9 | 3.4 | 3.4 | 3.4 | 2.4 | 1.9 | 2.4 | 1.9 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.2 | 6.7 | 6.7 | 6.7 | 6.1 | 5.6 | 6.1 | 5.6 |
| Lead/Lag | Lead | | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | C-Max | None | C-Max |
| Act Effct Green (s) | 29.1 | 28.6 | 16.6 | 16.6 | 42.6 | 42.4 | 30.6 | 30.4 |
| Actuated g/C Ratio | 0.24 | 0.24 | 0.14 | 0.14 | 0.36 | 0.35 | 0.26 | 0.25 |
| v/c Ratio | 0.41 | 0.35 | 0.66 | 0.66 | 0.85 | 1.11 | 0.72 | 0.93 |
| Control Delay | 39.5 | 10.7 | 67.2 | 24.0 | 33.8 | 101.3 | 53.8 | 53.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 39.5 | 10.7 | 67.2 | 24.0 | 33.8 | 101.3 | 53.8 | 53.1 |
| LOS | D | B | E | C | C | F | D | D |
| Approach Delay | | 19.4 | | 37.1 | | 87.0 | | 53.3 |
| Approach LOS | | B | | D | | F | | D |
| Queue Length 50th (m) | 13.2 | 6.3 | 24.1 | 15.4 | 107.5 | ~190.0 | 68.7 | 90.1 |
| Queue Length 95th (m) | 23.0 | 21.4 | 40.0 | 39.2 | m#161.0 | m#219.4 | #137.3 | #117.4 |
| Internal Link Dist (m) | | 228.4 | | 515.1 | | 121.4 | | 276.2 |
| Turn Bay Length (m) | 15.0 | | | | 135.0 | | 160.0 | |
| Base Capacity (vph) | 182 | 676 | 293 | 523 | 601 | 1707 | 432 | 1250 |
| 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 | 0.25 | 0.36 | 0.46 | 0.85 | 1.11 | 0.72 | 0.93 |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 91 (76%), Referenced to phase 2:NBT and 6:SBT, Start of Green | |
| Natural Cycle: 145 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 1.11 | |
| Intersection Signal Delay: 68.4 | Intersection LOS: E |
| Intersection Capacity Utilization 98.4% | ICU Level of Service F |
| Analysis Period (min) 15 | |

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Riverside Dr & Hog's Back Rd/Brookfield Rd



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | NBR | SBL | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 4 | 0 | 24 | 0 | 103 | 2308 | 76 | 33 | 796 | 7 | |
| Future Volume (vph) | 4 | 0 | 24 | 0 | 103 | 2308 | 76 | 33 | 796 | 7 | |
| Lane Group Flow (vph) | 4 | 1 | 0 | 24 | 103 | 2308 | 76 | 33 | 796 | 7 | |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | Prot | NA | Perm | |
| Protected Phases | | 4 | | 8 | | 2 | | 1 | 6 | | 5 |
| Permitted Phases | 4 | | 8 | | 8 | | 2 | | | 6 | |
| Detector Phase | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 1 | 6 | 6 | |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 |
| Minimum Split (s) | 30.8 | 30.8 | 30.8 | 30.8 | 30.8 | 26.6 | 26.6 | 10.8 | 26.6 | 26.6 | 10.8 |
| Total Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 75.0 | 75.0 | 14.0 | 75.0 | 75.0 | 14.0 |
| Total Split (%) | 25.8% | 25.8% | 25.8% | 25.8% | 25.8% | 62.5% | 62.5% | 11.7% | 62.5% | 62.5% | 12% |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 1.9 | 1.9 | 2.1 | 1.9 | 1.9 | 2.1 |
| Lost Time Adjust (s) | 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 | 6.8 | 5.6 | 5.6 | 5.8 | 5.6 | 5.6 | |
| Lead/Lag | | | | | | Lag | Lag | Lead | Lag | Lag | Lead |
| Lead-Lag Optimize? | | | | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | C-Max | C-Max | None | C-Max | C-Max | None |
| Act Effct Green (s) | 10.3 | 10.3 | | 10.3 | 10.3 | 88.4 | 88.4 | 7.8 | 97.3 | 97.3 | |
| Actuated g/C Ratio | 0.09 | 0.09 | | 0.09 | 0.09 | 0.74 | 0.74 | 0.06 | 0.81 | 0.81 | |
| v/c Ratio | 0.04 | 0.00 | | 0.21 | 0.46 | 0.92 | 0.07 | 0.30 | 0.29 | 0.01 | |
| Control Delay | 50.8 | 0.0 | | 55.5 | 16.7 | 22.8 | 1.2 | 50.4 | 1.6 | 0.0 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 50.8 | 0.0 | | 55.5 | 16.7 | 22.8 | 1.2 | 50.4 | 1.6 | 0.0 | |
| LOS | D | A | | E | B | C | A | D | A | A | |
| Approach Delay | | 40.6 | | 24.1 | | 22.1 | | | 3.5 | | |
| Approach LOS | | D | | C | | C | | | A | | |
| Queue Length 50th (m) | 0.9 | 0.0 | | 5.4 | 0.0 | 240.4 | 0.0 | 8.0 | 14.7 | 0.0 | |
| Queue Length 95th (m) | 4.4 | 0.0 | | 13.8 | 16.4 | #345.1 | 4.0 | m10.7 | m14.0 | m0.0 | |
| Internal Link Dist (m) | | 58.8 | | 118.5 | | 110.2 | | | 196.4 | | |
| Turn Bay Length (m) | | | | | 35.0 | | 50.0 | 90.0 | | 55.0 | |
| Base Capacity (vph) | 267 | 526 | | 272 | 388 | 2497 | 1140 | 124 | 2749 | 1247 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.01 | 0.00 | | 0.09 | 0.27 | 0.92 | 0.07 | 0.27 | 0.29 | 0.01 | |

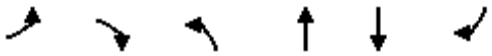
| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 100 (83%), Referenced to phase 2:NBT and 6:SBT, Start of Green | |
| Natural Cycle: 150 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.92 | |
| Intersection Signal Delay: 17.6 | Intersection LOS: B |
| Intersection Capacity Utilization 100.0% | ICU Level of Service G |
| Analysis Period (min) 15 | |

# 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.

Splits and Phases: 2: Riverside Dr & Ridgewood Ave

| Lane Group | EBL | NBT | SBT |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | 46 | 88 | 61 |
| Future Volume (vph) | 46 | 88 | 61 |
| Lane Group Flow (vph) | 79 | 163 | 95 |
| Sign Control | Stop | Stop | Stop |

| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 27.4% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |



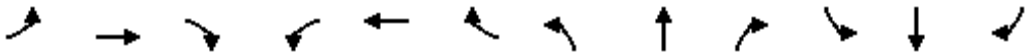
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Stop | Stop | |
| Traffic Volume (vph) | 46 | 33 | 75 | 88 | 61 | 34 |
| Future Volume (vph) | 46 | 33 | 75 | 88 | 61 | 34 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly flow rate (vph) | 46 | 33 | 75 | 88 | 61 | 34 |

| Direction, Lane # | EB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total (vph) | 79 | 163 | 95 |
| Volume Left (vph) | 46 | 75 | 0 |
| Volume Right (vph) | 33 | 0 | 34 |
| Hadj (s) | -0.10 | 0.13 | -0.18 |
| Departure Headway (s) | 4.4 | 4.3 | 4.1 |
| Degree Utilization, x | 0.10 | 0.20 | 0.11 |
| Capacity (veh/h) | 778 | 812 | 858 |
| Control Delay (s) | 7.8 | 8.3 | 7.6 |
| Approach Delay (s) | 7.8 | 8.3 | 7.6 |
| Approach LOS | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.0 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 27.4% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Configurations | | | | |
| Traffic Volume (vph) | 3 | 3 | 45 | 17 |
| Future Volume (vph) | 3 | 3 | 45 | 17 |
| Lane Group Flow (vph) | 207 | 14 | 49 | 98 |
| Sign Control | Stop | Stop | Stop | Stop |

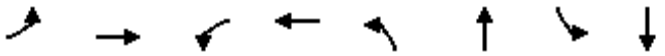
| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 32.1% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 203 | 3 | 1 | 0 | 3 | 11 | 4 | 45 | 0 | 2 | 17 | 79 |
| Future Volume (vph) | 203 | 3 | 1 | 0 | 3 | 11 | 4 | 45 | 0 | 2 | 17 | 79 |
| Peak Hour 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 |
| Hourly flow rate (vph) | 203 | 3 | 1 | 0 | 3 | 11 | 4 | 45 | 0 | 2 | 17 | 79 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 207 | 14 | 49 | 98 |
| Volume Left (vph) | 203 | 0 | 4 | 2 |
| Volume Right (vph) | 1 | 11 | 0 | 79 |
| Hadj (s) | 0.23 | -0.44 | 0.05 | -0.45 |
| Departure Headway (s) | 4.5 | 4.0 | 4.6 | 4.0 |
| Degree Utilization, x | 0.26 | 0.02 | 0.06 | 0.11 |
| Capacity (veh/h) | 782 | 837 | 740 | 834 |
| Control Delay (s) | 9.0 | 7.1 | 7.9 | 7.5 |
| Approach Delay (s) | 9.0 | 7.1 | 7.9 | 7.5 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Delay | 8.4 | | | |
| Level of Service | A | | | |
| Intersection Capacity Utilization | 32.1% | ICU Level of Service | A | |
| Analysis Period (min) | 15 | | | |

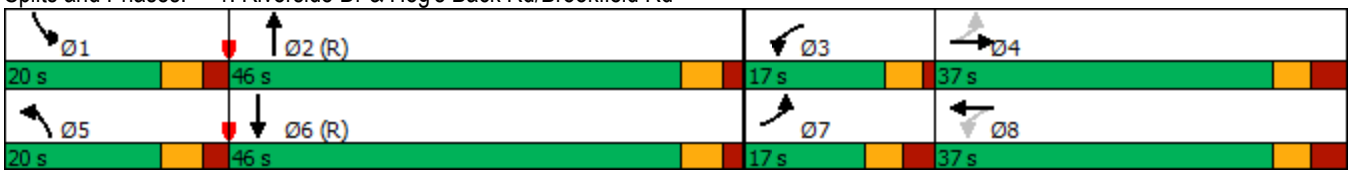


| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 172 | 53 | 337 | 29 | 139 | 788 | 234 | 1444 |
| Future Volume (vph) | 172 | 53 | 337 | 29 | 139 | 788 | 234 | 1444 |
| Lane Group Flow (vph) | 172 | 448 | 337 | 368 | 139 | 917 | 234 | 1583 |
| Turn Type | pm+pt | NA | pm+pt | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | 4 | | 8 | | | | | |
| 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 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 11.2 | 36.7 | 9.5 | 36.7 | 11.1 | 25.6 | 11.1 | 25.6 |
| Total Split (s) | 17.0 | 37.0 | 17.0 | 37.0 | 20.0 | 46.0 | 20.0 | 46.0 |
| Total Split (%) | 14.2% | 30.8% | 14.2% | 30.8% | 16.7% | 38.3% | 16.7% | 38.3% |
| Yellow Time (s) | 3.3 | 3.3 | 3.5 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.9 | 3.4 | 1.0 | 3.4 | 2.4 | 1.9 | 2.4 | 1.9 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.2 | 6.7 | 4.5 | 6.7 | 6.1 | 5.6 | 6.1 | 5.6 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | C-Max | None | C-Max |
| Act Effct Green (s) | 34.3 | 23.1 | 38.0 | 23.3 | 13.3 | 40.5 | 20.9 | 48.2 |
| Actuated g/C Ratio | 0.29 | 0.19 | 0.32 | 0.19 | 0.11 | 0.34 | 0.17 | 0.40 |
| v/c Ratio | 0.82 | 0.91 | 1.40 | 0.68 | 0.74 | 0.56 | 0.79 | 0.82 |
| Control Delay | 58.0 | 43.2 | 229.5 | 15.9 | 65.5 | 44.5 | 69.0 | 37.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.0 | 43.2 | 229.5 | 15.9 | 65.5 | 44.5 | 69.0 | 37.5 |
| LOS | E | D | F | B | E | D | E | D |
| Approach Delay | | 47.3 | | 118.0 | | 47.2 | | 41.5 |
| Approach LOS | | D | | F | | D | | D |
| Queue Length 50th (m) | 29.0 | 49.8 | ~88.3 | 14.0 | 31.5 | 82.5 | 54.2 | 125.8 |
| Queue Length 95th (m) | #50.9 | #88.7 | #138.4 | 43.6 | #60.4 | 96.2 | #116.0 | #166.9 |
| Internal Link Dist (m) | | 228.4 | | 515.1 | | 121.4 | | 276.2 |
| Turn Bay Length (m) | 15.0 | | | | 135.0 | | 160.0 | |
| Base Capacity (vph) | 213 | 573 | 241 | 610 | 200 | 1629 | 295 | 1939 |
| 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 | 0.81 | 0.78 | 1.40 | 0.60 | 0.69 | 0.56 | 0.79 | 0.82 |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 84 (70%), Referenced to phase 2:NBT and 6:SBT, Start of Green | |
| Natural Cycle: 125 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 1.40 | |
| Intersection Signal Delay: 56.7 | Intersection LOS: E |
| Intersection Capacity Utilization 108.3% | ICU Level of Service G |
| Analysis Period (min) 15 | |

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Riverside Dr & Hog's Back Rd/Brookfield Rd



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 7 | 0 | 49 | 1 | 47 | 3 | 1030 | 34 | 53 | 1897 | 8 |
| Future Volume (vph) | 7 | 0 | 49 | 1 | 47 | 3 | 1030 | 34 | 53 | 1897 | 8 |
| Lane Group Flow (vph) | 7 | 5 | 0 | 50 | 47 | 3 | 1030 | 34 | 53 | 1897 | 8 |
| Turn Type | Perm | NA | Perm | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | | 4 | | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | 8 | | 8 | | | 2 | | | 6 |
| Detector Phase | 4 | 4 | 8 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 30.8 | 30.8 | 30.8 | 30.8 | 30.8 | 10.8 | 26.6 | 26.6 | 10.8 | 26.6 | 26.6 |
| Total Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 14.0 | 75.0 | 75.0 | 14.0 | 75.0 | 75.0 |
| Total Split (%) | 25.8% | 25.8% | 25.8% | 25.8% | 25.8% | 11.7% | 62.5% | 62.5% | 11.7% | 62.5% | 62.5% |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 2.1 | 1.9 | 1.9 | 2.1 | 1.9 | 1.9 |
| 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) | 6.8 | 6.8 | | 6.8 | 6.8 | 5.8 | 5.6 | 5.6 | 5.8 | 5.6 | 5.6 |
| Lead/Lag | | | | | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | | | | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | C-Max | C-Max | None | C-Max | C-Max |
| Act Effct Green (s) | 11.2 | 11.2 | | 11.2 | 11.2 | 5.8 | 88.2 | 88.2 | 9.1 | 98.4 | 98.4 |
| Actuated g/C Ratio | 0.09 | 0.09 | | 0.09 | 0.09 | 0.05 | 0.74 | 0.74 | 0.08 | 0.82 | 0.82 |
| v/c Ratio | 0.06 | 0.02 | | 0.41 | 0.22 | 0.04 | 0.41 | 0.03 | 0.41 | 0.68 | 0.01 |
| Control Delay | 49.4 | 0.2 | | 61.4 | 6.2 | 55.0 | 9.0 | 0.1 | 60.8 | 6.4 | 0.0 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 49.4 | 0.2 | | 61.4 | 6.2 | 55.0 | 9.0 | 0.1 | 60.8 | 6.4 | 0.0 |
| LOS | D | A | | E | A | D | A | A | E | A | A |
| Approach Delay | | 28.9 | | 34.6 | | | 8.9 | | | 7.8 | |
| Approach LOS | | C | | C | | | A | | | A | |
| Queue Length 50th (m) | 1.5 | 0.0 | | 11.4 | 0.0 | 0.7 | 51.4 | 0.0 | 12.9 | 35.9 | 0.0 |
| Queue Length 95th (m) | 6.0 | 0.0 | | 23.5 | 4.7 | 3.9 | 79.5 | 0.0 | m14.7 | m48.3 | m0.0 |
| Internal Link Dist (m) | | 58.8 | | 118.5 | | | 110.2 | | | 196.4 | |
| Turn Bay Length (m) | | | | | 35.0 | 50.0 | | 50.0 | 90.0 | | 55.0 |
| Base Capacity (vph) | 260 | 406 | | 261 | 366 | 115 | 2492 | 1138 | 137 | 2780 | 1259 |
| 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 | 0.03 | 0.01 | | 0.19 | 0.13 | 0.03 | 0.41 | 0.03 | 0.39 | 0.68 | 0.01 |

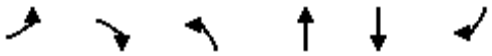
| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 112 (93%), Referenced to phase 2:NBT and 6:SBT, Start of Green | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.68 | |
| Intersection Signal Delay: 9.1 | Intersection LOS: A |
| Intersection Capacity Utilization 75.3% | ICU Level of Service D |
| Analysis Period (min) 15 | |

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Riverside Dr & Ridgewood Ave

| Lane Group | EBL | NBT | SBT |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | 27 | 49 | 243 |
| Future Volume (vph) | 27 | 49 | 243 |
| Lane Group Flow (vph) | 83 | 95 | 278 |
| Sign Control | Stop | Stop | Stop |

| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 36.4% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |



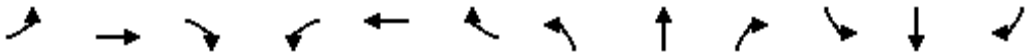
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Stop | Stop | |
| Traffic Volume (vph) | 27 | 56 | 46 | 49 | 243 | 35 |
| Future Volume (vph) | 27 | 56 | 46 | 49 | 243 | 35 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly flow rate (vph) | 27 | 56 | 46 | 49 | 243 | 35 |

| Direction, Lane # | EB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total (vph) | 83 | 95 | 278 |
| Volume Left (vph) | 27 | 46 | 0 |
| Volume Right (vph) | 56 | 0 | 35 |
| Hadj (s) | -0.31 | 0.13 | -0.04 |
| Departure Headway (s) | 4.4 | 4.5 | 4.2 |
| Degree Utilization, x | 0.10 | 0.12 | 0.32 |
| Capacity (veh/h) | 748 | 769 | 838 |
| Control Delay (s) | 7.9 | 8.1 | 9.1 |
| Approach Delay (s) | 7.9 | 8.1 | 9.1 |
| Approach LOS | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.7 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 36.4% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Configurations | | | | |
| Traffic Volume (vph) | 2 | 4 | 23 | 80 |
| Future Volume (vph) | 2 | 4 | 23 | 80 |
| Lane Group Flow (vph) | 104 | 8 | 24 | 376 |
| Sign Control | Stop | Stop | Stop | Stop |

| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization | 46.0% | ICU Level of Service A |
| Analysis Period (min) | 15 | |

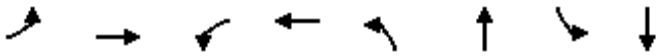


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 95 | 2 | 7 | 0 | 4 | 4 | 1 | 23 | 0 | 8 | 80 | 288 |
| Future Volume (vph) | 95 | 2 | 7 | 0 | 4 | 4 | 1 | 23 | 0 | 8 | 80 | 288 |
| Peak Hour 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 |
| Hourly flow rate (vph) | 95 | 2 | 7 | 0 | 4 | 4 | 1 | 23 | 0 | 8 | 80 | 288 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 104 | 8 | 24 | 376 |
| Volume Left (vph) | 95 | 0 | 1 | 8 |
| Volume Right (vph) | 7 | 4 | 0 | 288 |
| Hadj (s) | 0.18 | -0.27 | 0.04 | -0.42 |
| Departure Headway (s) | 4.9 | 4.6 | 4.6 | 3.8 |
| Degree Utilization, x | 0.14 | 0.01 | 0.03 | 0.40 |
| Capacity (veh/h) | 677 | 705 | 743 | 928 |
| Control Delay (s) | 8.7 | 7.6 | 7.7 | 9.3 |
| Approach Delay (s) | 8.7 | 7.6 | 7.7 | 9.3 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 9.1 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 46.0% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

# Total Projected 2024

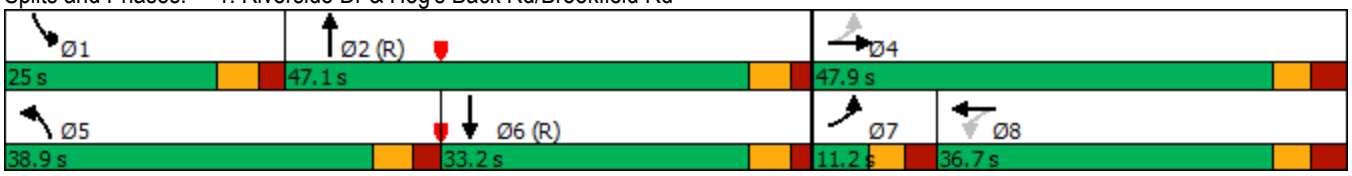


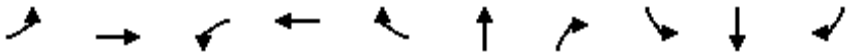
| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 70 | 34 | 101 | 45 | 492 | 1407 | 295 | 723 |
| Future Volume (vph) | 70 | 34 | 101 | 45 | 492 | 1407 | 295 | 723 |
| Lane Group Flow (vph) | 70 | 164 | 101 | 233 | 492 | 1836 | 295 | 1119 |
| Turn Type | pm+pt | NA | Perm | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | 4 | | 8 | | | | | |
| Detector Phase | 7 | 4 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 11.2 | 36.7 | 36.7 | 36.7 | 11.1 | 25.6 | 11.1 | 25.6 |
| Total Split (s) | 11.2 | 47.9 | 36.7 | 36.7 | 38.9 | 47.1 | 25.0 | 33.2 |
| Total Split (%) | 9.3% | 39.9% | 30.6% | 30.6% | 32.4% | 39.3% | 20.8% | 27.7% |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.9 | 3.4 | 3.4 | 3.4 | 2.4 | 1.9 | 2.4 | 1.9 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.2 | 6.7 | 6.7 | 6.7 | 6.1 | 5.6 | 6.1 | 5.6 |
| Lead/Lag | Lead | | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | C-Max | None | C-Max |
| Act Effct Green (s) | 25.7 | 25.2 | 16.2 | 16.2 | 43.9 | 46.2 | 30.2 | 32.6 |
| Actuated g/C Ratio | 0.21 | 0.21 | 0.14 | 0.14 | 0.37 | 0.38 | 0.25 | 0.27 |
| v/c Ratio | 0.53 | 0.38 | 0.64 | 0.65 | 0.79 | 0.99 | 0.69 | 0.84 |
| Control Delay | 50.1 | 12.1 | 66.6 | 23.6 | 26.9 | 56.3 | 51.1 | 45.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.1 | 12.1 | 66.6 | 23.6 | 26.9 | 56.3 | 51.1 | 45.1 |
| LOS | D | B | E | C | C | E | D | D |
| Approach Delay | | 23.5 | | 36.6 | | 50.1 | | 46.3 |
| Approach LOS | | C | | D | | D | | D |
| Queue Length 50th (m) | 13.4 | 6.4 | 23.0 | 14.3 | 87.4 | ~172.5 | 62.9 | 86.3 |
| Queue Length 95th (m) | 23.5 | 22.1 | 38.7 | 37.8 | m110.4 | m#206.1 | #111.6 | #119.5 |
| Internal Link Dist (m) | | 228.4 | | 515.1 | | 121.4 | | 276.2 |
| Turn Bay Length (m) | 15.0 | | | | 135.0 | | 160.0 | |
| Base Capacity (vph) | 133 | 625 | 291 | 517 | 619 | 1852 | 427 | 1329 |
| 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 | 0.26 | 0.35 | 0.45 | 0.79 | 0.99 | 0.69 | 0.84 |

| Intersection Summary | | |
|---|---|---|
| Cycle Length: 120 | | |
| Actuated Cycle Length: 120 | | |
| Offset: 91 (76%), Referenced to phase 2:NBT and 6:SBT, Start of Green | | |
| Natural Cycle: 135 | | |
| Control Type: Actuated-Coordinated | | |
| Maximum v/c Ratio: 0.99 | | |
| Intersection Signal Delay: 46.4 | Intersection LOS: D | |
| Intersection Capacity Utilization 95.6% | ICU Level of Service F | |
| Analysis Period (min) 15 | | |

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Riverside Dr & Hog's Back Rd/Brookfield Rd





| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | NBR | SBL | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 4 | 0 | 45 | 0 | 127 | 2204 | 86 | 44 | 761 | 7 | |
| Future Volume (vph) | 4 | 0 | 45 | 0 | 127 | 2204 | 86 | 44 | 761 | 7 | |
| Lane Group Flow (vph) | 4 | 1 | 0 | 45 | 127 | 2204 | 86 | 44 | 761 | 7 | |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | Prot | NA | Perm | |
| Protected Phases | | 4 | | 8 | | 2 | | 1 | 6 | | 5 |
| Permitted Phases | 4 | | 8 | | 8 | | 2 | | | 6 | |
| Detector Phase | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 1 | 6 | 6 | |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 |
| Minimum Split (s) | 30.8 | 30.8 | 30.8 | 30.8 | 30.8 | 26.6 | 26.6 | 10.8 | 26.6 | 26.6 | 10.8 |
| Total Split (s) | 30.8 | 30.8 | 30.8 | 30.8 | 30.8 | 78.4 | 78.4 | 10.8 | 78.4 | 78.4 | 10.8 |
| Total Split (%) | 25.7% | 25.7% | 25.7% | 25.7% | 25.7% | 65.3% | 65.3% | 9.0% | 65.3% | 65.3% | 9% |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 1.9 | 1.9 | 2.1 | 1.9 | 1.9 | 2.1 |
| Lost Time Adjust (s) | 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 | 6.8 | 5.6 | 5.6 | 5.8 | 5.6 | 5.6 | |
| Lead/Lag | | | | | | Lag | Lag | Lead | Lag | Lag | Lead |
| Lead-Lag Optimize? | | | | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | C-Max | C-Max | None | C-Max | C-Max | None |
| Act Effct Green (s) | 11.6 | 11.6 | | 11.6 | 11.6 | 83.7 | 83.7 | 8.8 | 96.0 | 96.0 | |
| Actuated g/C Ratio | 0.10 | 0.10 | | 0.10 | 0.10 | 0.70 | 0.70 | 0.07 | 0.80 | 0.80 | |
| v/c Ratio | 0.03 | 0.00 | | 0.34 | 0.59 | 0.93 | 0.08 | 0.35 | 0.28 | 0.01 | |
| Control Delay | 47.8 | 0.0 | | 57.2 | 33.4 | 26.3 | 1.9 | 59.1 | 2.6 | 0.0 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 47.8 | 0.0 | | 57.2 | 33.4 | 26.3 | 1.9 | 59.1 | 2.6 | 0.0 | |
| LOS | D | A | | E | C | C | A | E | A | A | |
| Approach Delay | | 38.2 | | 39.6 | | 25.4 | | | 5.6 | | |
| Approach LOS | | D | | D | | C | | | A | | |
| Queue Length 50th (m) | 0.9 | 0.0 | | 10.2 | 11.4 | 218.1 | 0.0 | 11.0 | 14.0 | 0.0 | |
| Queue Length 95th (m) | 4.2 | 0.0 | | 21.2 | 29.8 | #339.7 | 5.8 | m15.6 | m18.0 | m0.0 | |
| Internal Link Dist (m) | | 58.8 | | 118.5 | | 110.2 | | | 196.4 | | |
| Turn Bay Length (m) | | | | | 35.0 | | 50.0 | 90.0 | | 55.0 | |
| Base Capacity (vph) | 259 | 517 | | 270 | 365 | 2363 | 1084 | 124 | 2711 | 1230 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.02 | 0.00 | | 0.17 | 0.35 | 0.93 | 0.08 | 0.35 | 0.28 | 0.01 | |

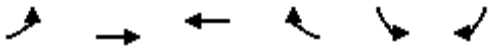
| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 100 (83%), Referenced to phase 2:NBT and 6:SBT, Start of Green | |
| Natural Cycle: 130 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.93 | |
| Intersection Signal Delay: 21.3 | Intersection LOS: C |
| Intersection Capacity Utilization 97.0% | ICU Level of Service F |
| Analysis Period (min) 15 | |

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Riverside Dr & Ridgewood Ave

| Lane Group | EBT | WBT | SBL |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | 109 | 127 | 15 |
| Future Volume (vph) | 109 | 127 | 15 |
| Lane Group Flow (vph) | 130 | 134 | 61 |
| Sign Control | Free | Free | Stop |

| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 28.7% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |



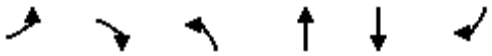
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 21 | 109 | 127 | 7 | 15 | 46 |
| Future Volume (Veh/h) | 21 | 109 | 127 | 7 | 15 | 46 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly flow rate (vph) | 21 | 109 | 127 | 7 | 15 | 46 |
| Pedestrians | | | | | | |
| Lane Width (m) | | | | | | |
| Walking Speed (m/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | None | None | | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | 143 | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 134 | | | | 282 | 130 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 134 | | | | 282 | 130 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 99 | | | | 98 | 95 |
| cM capacity (veh/h) | 1451 | | | | 698 | 919 |

| Direction, Lane # | EB 1 | WB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 130 | 134 | 61 |
| Volume Left | 21 | 0 | 15 |
| Volume Right | 0 | 7 | 46 |
| cSH | 1451 | 1700 | 853 |
| Volume to Capacity | 0.01 | 0.08 | 0.07 |
| Queue Length 95th (m) | 0.3 | 0.0 | 1.8 |
| Control Delay (s) | 1.3 | 0.0 | 9.5 |
| Lane LOS | A | | A |
| Approach Delay (s) | 1.3 | 0.0 | 9.5 |
| Approach LOS | | | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 2.3 | | |
| Intersection Capacity Utilization | 28.7% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | NBT | SBT |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | 61 | 88 | 61 |
| Future Volume (vph) | 61 | 88 | 61 |
| Lane Group Flow (vph) | 94 | 163 | 102 |
| Sign Control | Stop | Stop | Stop |

| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 28.3% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |



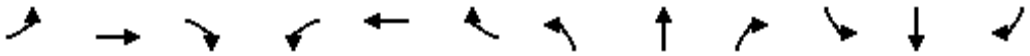
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Stop | Stop | |
| Traffic Volume (vph) | 61 | 33 | 75 | 88 | 61 | 41 |
| Future Volume (vph) | 61 | 33 | 75 | 88 | 61 | 41 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly flow rate (vph) | 61 | 33 | 75 | 88 | 61 | 41 |

| Direction, Lane # | EB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total (vph) | 94 | 163 | 102 |
| Volume Left (vph) | 61 | 75 | 0 |
| Volume Right (vph) | 33 | 0 | 41 |
| Hadj (s) | -0.05 | 0.13 | -0.21 |
| Departure Headway (s) | 4.4 | 4.4 | 4.1 |
| Degree Utilization, x | 0.12 | 0.20 | 0.12 |
| Capacity (veh/h) | 756 | 801 | 853 |
| Control Delay (s) | 8.0 | 8.4 | 7.6 |
| Approach Delay (s) | 8.0 | 8.4 | 7.6 |
| Approach LOS | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.1 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 28.3% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Configurations | | | | |
| Traffic Volume (vph) | 3 | 3 | 45 | 17 |
| Future Volume (vph) | 3 | 3 | 45 | 17 |
| Lane Group Flow (vph) | 222 | 14 | 49 | 105 |
| Sign Control | Stop | Stop | Stop | Stop |

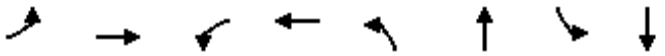
| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 33.4% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 218 | 3 | 1 | 0 | 3 | 11 | 4 | 45 | 0 | 2 | 17 | 86 |
| Future Volume (vph) | 218 | 3 | 1 | 0 | 3 | 11 | 4 | 45 | 0 | 2 | 17 | 86 |
| Peak Hour 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 |
| Hourly flow rate (vph) | 218 | 3 | 1 | 0 | 3 | 11 | 4 | 45 | 0 | 2 | 17 | 86 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 222 | 14 | 49 | 105 |
| Volume Left (vph) | 218 | 0 | 4 | 2 |
| Volume Right (vph) | 1 | 11 | 0 | 86 |
| Hadj (s) | 0.23 | -0.44 | 0.05 | -0.45 |
| Departure Headway (s) | 4.5 | 4.1 | 4.6 | 4.1 |
| Degree Utilization, x | 0.28 | 0.02 | 0.06 | 0.12 |
| Capacity (veh/h) | 779 | 828 | 730 | 826 |
| Control Delay (s) | 9.2 | 7.1 | 7.9 | 7.6 |
| Approach Delay (s) | 9.2 | 7.1 | 7.9 | 7.6 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.5 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 33.4% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

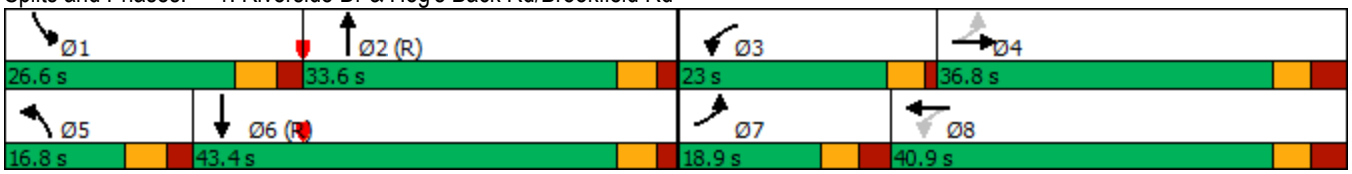


| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 164 | 51 | 321 | 28 | 137 | 765 | 224 | 1395 |
| Future Volume (vph) | 164 | 51 | 321 | 28 | 137 | 765 | 224 | 1395 |
| Lane Group Flow (vph) | 164 | 433 | 321 | 352 | 137 | 889 | 224 | 1528 |
| Turn Type | pm+pt | NA | pm+pt | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | 4 | | 8 | | | | | |
| 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 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 11.2 | 36.7 | 9.5 | 36.7 | 11.1 | 25.6 | 11.1 | 25.6 |
| Total Split (s) | 18.9 | 36.8 | 23.0 | 40.9 | 16.8 | 33.6 | 26.6 | 43.4 |
| Total Split (%) | 15.8% | 30.7% | 19.2% | 34.1% | 14.0% | 28.0% | 22.2% | 36.2% |
| Yellow Time (s) | 3.3 | 3.3 | 3.5 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.9 | 3.4 | 1.0 | 3.4 | 2.4 | 1.9 | 2.4 | 1.9 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.2 | 6.7 | 4.5 | 6.7 | 6.1 | 5.6 | 6.1 | 5.6 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | C-Max | None | C-Max |
| Act Effct Green (s) | 34.3 | 22.0 | 46.9 | 26.9 | 13.3 | 37.3 | 19.3 | 43.3 |
| Actuated g/C Ratio | 0.29 | 0.18 | 0.39 | 0.22 | 0.11 | 0.31 | 0.16 | 0.36 |
| v/c Ratio | 0.63 | 0.90 | 0.99 | 0.59 | 0.73 | 0.59 | 0.82 | 0.88 |
| Control Delay | 36.2 | 41.9 | 80.1 | 9.6 | 65.0 | 38.6 | 72.2 | 43.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 36.2 | 41.9 | 80.1 | 9.6 | 65.0 | 38.6 | 72.2 | 43.4 |
| LOS | D | D | F | A | E | D | E | D |
| Approach Delay | | 40.3 | | 43.2 | | 42.1 | | 47.1 |
| Approach LOS | | D | | D | | D | | D |
| Queue Length 50th (m) | 25.9 | 46.1 | 59.3 | 5.2 | 30.6 | 76.3 | 50.3 | 129.2 |
| Queue Length 95th (m) | 37.6 | 82.0 | #108.7 | 29.3 | #70.0 | 92.8 | #87.3 | #166.5 |
| Internal Link Dist (m) | | 228.4 | | 515.1 | | 121.4 | | 276.2 |
| Turn Bay Length (m) | 15.0 | | | | 135.0 | | 160.0 | |
| Base Capacity (vph) | 271 | 571 | 324 | 669 | 187 | 1498 | 295 | 1745 |
| 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 | 0.61 | 0.76 | 0.99 | 0.53 | 0.73 | 0.59 | 0.76 | 0.88 |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 84 (70%), Referenced to phase 2:NBT and 6:SBT, Start of Green | |
| Natural Cycle: 125 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.99 | |
| Intersection Signal Delay: 44.2 | Intersection LOS: D |
| Intersection Capacity Utilization 105.2% | ICU Level of Service G |
| Analysis Period (min) 15 | |

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Riverside Dr & Hog's Back Rd/Brookfield Rd



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 7 | 0 | 62 | 1 | 62 | 3 | 985 | 52 | 73 | 1812 | 8 |
| Future Volume (vph) | 7 | 0 | 62 | 1 | 62 | 3 | 985 | 52 | 73 | 1812 | 8 |
| Lane Group Flow (vph) | 7 | 5 | 0 | 63 | 62 | 3 | 985 | 52 | 73 | 1812 | 8 |
| Turn Type | Perm | NA | Perm | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | | 4 | | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | 8 | | 8 | | | 2 | | | 6 |
| Detector Phase | 4 | 4 | 8 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 30.8 | 30.8 | 30.8 | 30.8 | 30.8 | 10.8 | 26.6 | 26.6 | 10.8 | 26.6 | 26.6 |
| Total Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 14.0 | 75.0 | 75.0 | 14.0 | 75.0 | 75.0 |
| Total Split (%) | 25.8% | 25.8% | 25.8% | 25.8% | 25.8% | 11.7% | 62.5% | 62.5% | 11.7% | 62.5% | 62.5% |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 2.1 | 1.9 | 1.9 | 2.1 | 1.9 | 1.9 |
| 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) | 6.8 | 6.8 | | 6.8 | 6.8 | 5.8 | 5.6 | 5.6 | 5.8 | 5.6 | 5.6 |
| Lead/Lag | | | | | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | | | | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | C-Max | C-Max | None | C-Max | C-Max |
| Act Effct Green (s) | 12.2 | 12.2 | | 12.2 | 12.2 | 5.8 | 85.9 | 85.9 | 10.7 | 97.5 | 97.5 |
| Actuated g/C Ratio | 0.10 | 0.10 | | 0.10 | 0.10 | 0.05 | 0.72 | 0.72 | 0.09 | 0.81 | 0.81 |
| v/c Ratio | 0.05 | 0.02 | | 0.48 | 0.28 | 0.04 | 0.41 | 0.05 | 0.48 | 0.66 | 0.01 |
| Control Delay | 47.9 | 0.2 | | 62.6 | 10.6 | 55.0 | 10.2 | 0.7 | 72.5 | 6.4 | 0.0 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.9 | 0.2 | | 62.6 | 10.6 | 55.0 | 10.2 | 0.7 | 72.5 | 6.4 | 0.0 |
| LOS | D | A | | E | B | D | B | A | E | A | A |
| Approach Delay | | 28.0 | | 36.8 | | | 9.9 | | | 8.9 | |
| Approach LOS | | C | | D | | | A | | | A | |
| Queue Length 50th (m) | 1.5 | 0.0 | | 14.4 | 0.0 | 0.7 | 52.7 | 0.0 | 18.3 | 26.3 | 0.0 |
| Queue Length 95th (m) | 5.9 | 0.0 | | 27.8 | 9.4 | 3.9 | 82.4 | 1.7 | m21.3 | m220.6 | m0.0 |
| Internal Link Dist (m) | | 58.8 | | 118.5 | | | 110.2 | | | 196.4 | |
| Turn Bay Length (m) | | | | | 35.0 | 50.0 | | 50.0 | 90.0 | | 55.0 |
| Base Capacity (vph) | 257 | 408 | | 261 | 366 | 115 | 2426 | 1110 | 155 | 2753 | 1248 |
| 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 | 0.03 | 0.01 | | 0.24 | 0.17 | 0.03 | 0.41 | 0.05 | 0.47 | 0.66 | 0.01 |

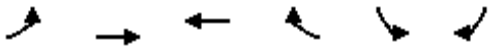
| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 112 (93%), Referenced to phase 2:NBT and 6:SBT, Start of Green | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.66 | |
| Intersection Signal Delay: 10.4 | Intersection LOS: B |
| Intersection Capacity Utilization 82.6% | ICU Level of Service E |
| Analysis Period (min) 15 | |

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Riverside Dr & Ridgewood Ave

| Lane Group | EBT | WBT | SBL |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | 87 | 97 | 9 |
| Future Volume (vph) | 87 | 97 | 9 |
| Lane Group Flow (vph) | 125 | 110 | 37 |
| Sign Control | Free | Free | Stop |

| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 23.7% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |



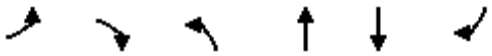
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 38 | 87 | 97 | 13 | 9 | 28 |
| Future Volume (Veh/h) | 38 | 87 | 97 | 13 | 9 | 28 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly flow rate (vph) | 38 | 87 | 97 | 13 | 9 | 28 |
| Pedestrians | | | | | | |
| Lane Width (m) | | | | | | |
| Walking Speed (m/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | None | None | | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | 143 | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 110 | | | | 266 | 104 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 110 | | | | 266 | 104 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 97 | | | | 99 | 97 |
| cM capacity (veh/h) | 1480 | | | | 704 | 951 |

| Direction, Lane # | EB 1 | WB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 125 | 110 | 37 |
| Volume Left | 38 | 0 | 9 |
| Volume Right | 0 | 13 | 28 |
| cSH | 1480 | 1700 | 876 |
| Volume to Capacity | 0.03 | 0.06 | 0.04 |
| Queue Length 95th (m) | 0.6 | 0.0 | 1.0 |
| Control Delay (s) | 2.4 | 0.0 | 9.3 |
| Lane LOS | A | | A |
| Approach Delay (s) | 2.4 | 0.0 | 9.3 |
| Approach LOS | | | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 2.4 | | |
| Intersection Capacity Utilization | 23.7% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | NBT | SBT |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | 36 | 49 | 243 |
| Future Volume (vph) | 36 | 49 | 243 |
| Lane Group Flow (vph) | 92 | 95 | 291 |
| Sign Control | Stop | Stop | Stop |

| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 37.7% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |



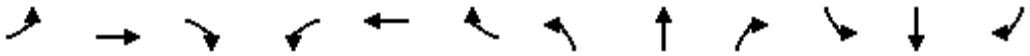
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Stop | Stop | |
| Traffic Volume (vph) | 36 | 56 | 46 | 49 | 243 | 48 |
| Future Volume (vph) | 36 | 56 | 46 | 49 | 243 | 48 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly flow rate (vph) | 36 | 56 | 46 | 49 | 243 | 48 |

| Direction, Lane # | EB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total (vph) | 92 | 95 | 291 |
| Volume Left (vph) | 36 | 46 | 0 |
| Volume Right (vph) | 56 | 0 | 48 |
| Hadj (s) | -0.25 | 0.13 | -0.06 |
| Departure Headway (s) | 4.5 | 4.6 | 4.2 |
| Degree Utilization, x | 0.11 | 0.12 | 0.34 |
| Capacity (veh/h) | 734 | 759 | 837 |
| Control Delay (s) | 8.1 | 8.2 | 9.3 |
| Approach Delay (s) | 8.1 | 8.2 | 9.3 |
| Approach LOS | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.8 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 37.7% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Configurations | | | | |
| Traffic Volume (vph) | 2 | 4 | 23 | 80 |
| Future Volume (vph) | 2 | 4 | 23 | 80 |
| Lane Group Flow (vph) | 113 | 8 | 24 | 389 |
| Sign Control | Stop | Stop | Stop | Stop |

| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization | 47.4% | ICU Level of Service A |
| Analysis Period (min) | 15 | |

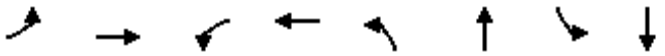


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 104 | 2 | 7 | 0 | 4 | 4 | 1 | 23 | 0 | 8 | 80 | 301 |
| Future Volume (vph) | 104 | 2 | 7 | 0 | 4 | 4 | 1 | 23 | 0 | 8 | 80 | 301 |
| Peak Hour 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 |
| Hourly flow rate (vph) | 104 | 2 | 7 | 0 | 4 | 4 | 1 | 23 | 0 | 8 | 80 | 301 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 113 | 8 | 24 | 389 |
| Volume Left (vph) | 104 | 0 | 1 | 8 |
| Volume Right (vph) | 7 | 4 | 0 | 301 |
| Hadj (s) | 0.18 | -0.27 | 0.04 | -0.43 |
| Departure Headway (s) | 4.9 | 4.6 | 4.6 | 3.8 |
| Degree Utilization, x | 0.16 | 0.01 | 0.03 | 0.41 |
| Capacity (veh/h) | 672 | 695 | 734 | 912 |
| Control Delay (s) | 8.8 | 7.7 | 7.8 | 9.5 |
| Approach Delay (s) | 8.8 | 7.7 | 7.8 | 9.5 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 9.2 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 47.4% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

# Total Projected 2029

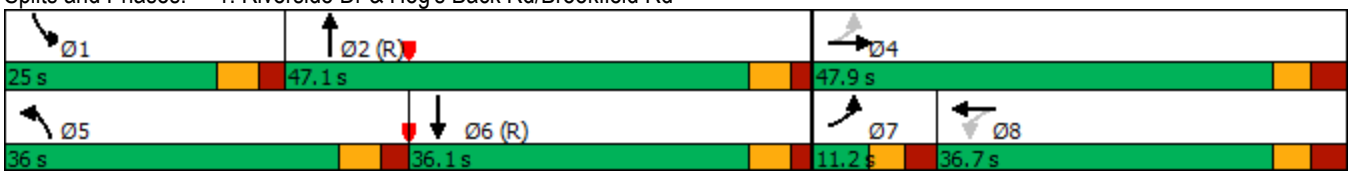


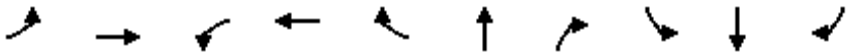
| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 73 | 35 | 106 | 46 | 516 | 1471 | 309 | 755 |
| Future Volume (vph) | 73 | 35 | 106 | 46 | 516 | 1471 | 309 | 755 |
| Lane Group Flow (vph) | 73 | 171 | 106 | 242 | 516 | 1921 | 309 | 1170 |
| Turn Type | pm+pt | NA | Perm | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | 4 | | 8 | | | | | |
| Detector Phase | 7 | 4 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 11.2 | 36.7 | 36.7 | 36.7 | 11.1 | 25.6 | 11.1 | 25.6 |
| Total Split (s) | 11.2 | 47.9 | 36.7 | 36.7 | 36.0 | 47.1 | 25.0 | 36.1 |
| Total Split (%) | 9.3% | 39.9% | 30.6% | 30.6% | 30.0% | 39.3% | 20.8% | 30.1% |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.9 | 3.4 | 3.4 | 3.4 | 2.4 | 1.9 | 2.4 | 1.9 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.2 | 6.7 | 6.7 | 6.7 | 6.1 | 5.6 | 6.1 | 5.6 |
| Lead/Lag | Lead | | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | C-Max | None | C-Max |
| Act Effct Green (s) | 26.1 | 25.6 | 16.7 | 16.7 | 45.5 | 44.2 | 31.8 | 30.5 |
| Actuated g/C Ratio | 0.22 | 0.21 | 0.14 | 0.14 | 0.38 | 0.37 | 0.26 | 0.25 |
| v/c Ratio | 0.55 | 0.39 | 0.66 | 0.66 | 0.80 | 1.08 | 0.69 | 0.93 |
| Control Delay | 51.5 | 11.8 | 67.1 | 24.1 | 26.4 | 88.5 | 50.2 | 53.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 51.5 | 11.8 | 67.1 | 24.1 | 26.4 | 88.5 | 50.2 | 53.4 |
| LOS | D | B | E | C | C | F | D | D |
| Approach Delay | | 23.7 | | 37.2 | | 75.4 | | 52.7 |
| Approach LOS | | C | | D | | E | | D |
| Queue Length 50th (m) | 13.9 | 6.5 | 24.1 | 15.6 | 97.4 | ~197.0 | 64.9 | 90.9 |
| Queue Length 95th (m) | 24.1 | 22.5 | 40.0 | 39.3 | m#140.5 | m#210.8 | #121.4 | #118.6 |
| Internal Link Dist (m) | | 228.4 | | 515.1 | | 121.4 | | 276.2 |
| Turn Bay Length (m) | 15.0 | | | | 135.0 | | 160.0 | |
| Base Capacity (vph) | 132 | 629 | 289 | 519 | 642 | 1774 | 448 | 1255 |
| 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 | 0.55 | 0.27 | 0.37 | 0.47 | 0.80 | 1.08 | 0.69 | 0.93 |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 91 (76%), Referenced to phase 2:NBT and 6:SBT, Start of Green | |
| Natural Cycle: 145 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 1.08 | |
| Intersection Signal Delay: 62.2 | Intersection LOS: E |
| Intersection Capacity Utilization 98.7% | ICU Level of Service F |
| Analysis Period (min) 15 | |

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Riverside Dr & Hog's Back Rd/Brookfield Rd





| Lane Group | EBL | EBT | WBL | WBT | WBR | NBT | NBR | SBL | SBT | SBR | Ø5 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 4 | 0 | 45 | 0 | 127 | 2308 | 86 | 44 | 796 | 7 | |
| Future Volume (vph) | 4 | 0 | 45 | 0 | 127 | 2308 | 86 | 44 | 796 | 7 | |
| Lane Group Flow (vph) | 4 | 1 | 0 | 45 | 127 | 2308 | 86 | 44 | 796 | 7 | |
| Turn Type | Perm | NA | Perm | NA | Perm | NA | Perm | Prot | NA | Perm | |
| Protected Phases | | 4 | | 8 | | 2 | | 1 | 6 | | 5 |
| Permitted Phases | 4 | | 8 | | 8 | | 2 | | | 6 | |
| Detector Phase | 4 | 4 | 8 | 8 | 8 | 2 | 2 | 1 | 6 | 6 | |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 |
| Minimum Split (s) | 30.8 | 30.8 | 30.8 | 30.8 | 30.8 | 26.6 | 26.6 | 10.8 | 26.6 | 26.6 | 10.8 |
| Total Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 75.0 | 75.0 | 14.0 | 75.0 | 75.0 | 14.0 |
| Total Split (%) | 25.8% | 25.8% | 25.8% | 25.8% | 25.8% | 62.5% | 62.5% | 11.7% | 62.5% | 62.5% | 12% |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 1.9 | 1.9 | 2.1 | 1.9 | 1.9 | 2.1 |
| Lost Time Adjust (s) | 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 | 6.8 | 5.6 | 5.6 | 5.8 | 5.6 | 5.6 | |
| Lead/Lag | | | | | | Lag | Lag | Lead | Lag | Lag | Lead |
| Lead-Lag Optimize? | | | | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | C-Max | C-Max | None | C-Max | C-Max | None |
| Act Effct Green (s) | 10.9 | 10.9 | | 10.9 | 10.9 | 84.6 | 84.6 | 8.5 | 96.7 | 96.7 | |
| Actuated g/C Ratio | 0.09 | 0.09 | | 0.09 | 0.09 | 0.70 | 0.70 | 0.07 | 0.81 | 0.81 | |
| v/c Ratio | 0.03 | 0.00 | | 0.37 | 0.52 | 0.97 | 0.08 | 0.37 | 0.29 | 0.01 | |
| Control Delay | 49.5 | 0.0 | | 59.8 | 18.3 | 30.3 | 1.8 | 52.8 | 2.1 | 0.0 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 49.5 | 0.0 | | 59.8 | 18.3 | 30.3 | 1.8 | 52.8 | 2.1 | 0.0 | |
| LOS | D | A | | E | B | C | A | D | A | A | |
| Approach Delay | | 39.6 | | 29.2 | | 29.3 | | | 4.7 | | |
| Approach LOS | | D | | C | | C | | | A | | |
| Queue Length 50th (m) | 0.9 | 0.0 | | 10.2 | 1.8 | 246.8 | 0.0 | 10.9 | 14.8 | 0.0 | |
| Queue Length 95th (m) | 4.3 | 0.0 | | 21.7 | 19.6 | #357.1 | 5.4 | m14.6 | m18.7 | m0.0 | |
| Internal Link Dist (m) | | 58.8 | | 118.5 | | 110.2 | | | 196.4 | | |
| Turn Bay Length (m) | | | | | 35.0 | | 50.0 | 90.0 | | 55.0 | |
| Base Capacity (vph) | 261 | 526 | | 272 | 400 | 2390 | 1095 | 131 | 2731 | 1239 | |
| Starvation Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.02 | 0.00 | | 0.17 | 0.32 | 0.97 | 0.08 | 0.34 | 0.29 | 0.01 | |

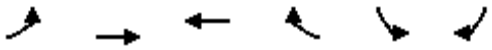
| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 100 (83%), Referenced to phase 2:NBT and 6:SBT, Start of Green | |
| Natural Cycle: 150 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.97 | |
| Intersection Signal Delay: 23.2 | Intersection LOS: C |
| Intersection Capacity Utilization 100.0% | ICU Level of Service G |
| Analysis Period (min) 15 | |

# 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.

Splits and Phases: 2: Riverside Dr & Ridgewood Ave

| Lane Group | EBT | WBT | SBL |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | 109 | 127 | 15 |
| Future Volume (vph) | 109 | 127 | 15 |
| Lane Group Flow (vph) | 130 | 134 | 61 |
| Sign Control | Free | Free | Stop |

| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 28.7% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |



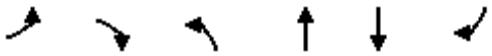
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 21 | 109 | 127 | 7 | 15 | 46 |
| Future Volume (Veh/h) | 21 | 109 | 127 | 7 | 15 | 46 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly flow rate (vph) | 21 | 109 | 127 | 7 | 15 | 46 |
| Pedestrians | | | | | | |
| Lane Width (m) | | | | | | |
| Walking Speed (m/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | None | None | | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | 143 | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 134 | | | | 282 | 130 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 134 | | | | 282 | 130 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 99 | | | | 98 | 95 |
| cM capacity (veh/h) | 1451 | | | | 698 | 919 |

| Direction, Lane # | EB 1 | WB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 130 | 134 | 61 |
| Volume Left | 21 | 0 | 15 |
| Volume Right | 0 | 7 | 46 |
| cSH | 1451 | 1700 | 853 |
| Volume to Capacity | 0.01 | 0.08 | 0.07 |
| Queue Length 95th (m) | 0.3 | 0.0 | 1.8 |
| Control Delay (s) | 1.3 | 0.0 | 9.5 |
| Lane LOS | A | | A |
| Approach Delay (s) | 1.3 | 0.0 | 9.5 |
| Approach LOS | | | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 2.3 | | |
| Intersection Capacity Utilization | 28.7% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | NBT | SBT |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | 61 | 88 | 61 |
| Future Volume (vph) | 61 | 88 | 61 |
| Lane Group Flow (vph) | 94 | 163 | 102 |
| Sign Control | Stop | Stop | Stop |

| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 28.3% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |



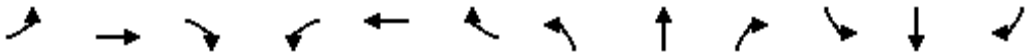
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Stop | Stop | |
| Traffic Volume (vph) | 61 | 33 | 75 | 88 | 61 | 41 |
| Future Volume (vph) | 61 | 33 | 75 | 88 | 61 | 41 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly flow rate (vph) | 61 | 33 | 75 | 88 | 61 | 41 |

| Direction, Lane # | EB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total (vph) | 94 | 163 | 102 |
| Volume Left (vph) | 61 | 75 | 0 |
| Volume Right (vph) | 33 | 0 | 41 |
| Hadj (s) | -0.05 | 0.13 | -0.21 |
| Departure Headway (s) | 4.4 | 4.4 | 4.1 |
| Degree Utilization, x | 0.12 | 0.20 | 0.12 |
| Capacity (veh/h) | 756 | 801 | 853 |
| Control Delay (s) | 8.0 | 8.4 | 7.6 |
| Approach Delay (s) | 8.0 | 8.4 | 7.6 |
| Approach LOS | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.1 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 28.3% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Configurations | | | | |
| Traffic Volume (vph) | 3 | 3 | 45 | 17 |
| Future Volume (vph) | 3 | 3 | 45 | 17 |
| Lane Group Flow (vph) | 222 | 14 | 49 | 105 |
| Sign Control | Stop | Stop | Stop | Stop |

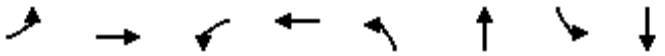
| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 33.4% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 218 | 3 | 1 | 0 | 3 | 11 | 4 | 45 | 0 | 2 | 17 | 86 |
| Future Volume (vph) | 218 | 3 | 1 | 0 | 3 | 11 | 4 | 45 | 0 | 2 | 17 | 86 |
| Peak Hour 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 |
| Hourly flow rate (vph) | 218 | 3 | 1 | 0 | 3 | 11 | 4 | 45 | 0 | 2 | 17 | 86 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 222 | 14 | 49 | 105 |
| Volume Left (vph) | 218 | 0 | 4 | 2 |
| Volume Right (vph) | 1 | 11 | 0 | 86 |
| Hadj (s) | 0.23 | -0.44 | 0.05 | -0.45 |
| Departure Headway (s) | 4.5 | 4.1 | 4.6 | 4.1 |
| Degree Utilization, x | 0.28 | 0.02 | 0.06 | 0.12 |
| Capacity (veh/h) | 779 | 828 | 730 | 826 |
| Control Delay (s) | 9.2 | 7.1 | 7.9 | 7.6 |
| Approach Delay (s) | 9.2 | 7.1 | 7.9 | 7.6 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.5 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 33.4% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |



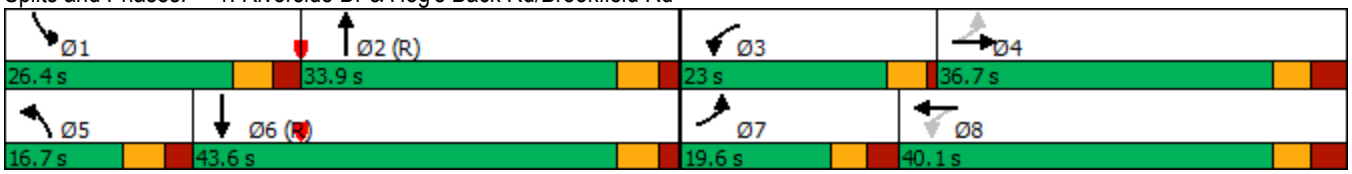
| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 172 | 53 | 337 | 29 | 143 | 799 | 234 | 1459 |
| Future Volume (vph) | 172 | 53 | 337 | 29 | 143 | 799 | 234 | 1459 |
| Lane Group Flow (vph) | 172 | 453 | 337 | 368 | 143 | 928 | 234 | 1598 |
| Turn Type | pm+pt | NA | pm+pt | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | 4 | | 8 | | | | | |
| 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 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 11.2 | 36.7 | 9.5 | 36.7 | 11.1 | 25.6 | 11.1 | 25.6 |
| Total Split (s) | 19.6 | 36.7 | 23.0 | 40.1 | 16.7 | 33.9 | 26.4 | 43.6 |
| Total Split (%) | 16.3% | 30.6% | 19.2% | 33.4% | 13.9% | 28.3% | 22.0% | 36.3% |
| Yellow Time (s) | 3.3 | 3.3 | 3.5 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 2.9 | 3.4 | 1.0 | 3.4 | 2.4 | 1.9 | 2.4 | 1.9 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.2 | 6.7 | 4.5 | 6.7 | 6.1 | 5.6 | 6.1 | 5.6 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | C-Max | None | C-Max |
| Act Effct Green (s) | 36.8 | 23.9 | 48.4 | 28.3 | 13.2 | 35.0 | 19.7 | 41.5 |
| Actuated g/C Ratio | 0.31 | 0.20 | 0.40 | 0.24 | 0.11 | 0.29 | 0.16 | 0.35 |
| v/c Ratio | 0.64 | 0.91 | 1.04 | 0.59 | 0.77 | 0.66 | 0.84 | 0.96 |
| Control Delay | 35.3 | 45.5 | 93.8 | 9.4 | 69.1 | 41.4 | 74.6 | 52.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 35.3 | 45.5 | 93.8 | 9.4 | 69.1 | 41.4 | 74.6 | 52.7 |
| LOS | D | D | F | A | E | D | E | D |
| Approach Delay | | 42.7 | | 49.8 | | 45.1 | | 55.5 |
| Approach LOS | | D | | D | | D | | E |
| Queue Length 50th (m) | 26.0 | 53.0 | ~68.0 | 5.3 | 32.8 | 83.8 | 52.3 | ~148.6 |
| Queue Length 95th (m) | 39.4 | #102.1 | #121.2 | 30.6 | #74.4 | 96.7 | #93.9 | #178.5 |
| Internal Link Dist (m) | | 228.4 | | 515.1 | | 121.4 | | 276.2 |
| Turn Bay Length (m) | 15.0 | | | | 135.0 | | 160.0 | |
| Base Capacity (vph) | 283 | 563 | 324 | 672 | 186 | 1408 | 293 | 1672 |
| 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 | 0.61 | 0.80 | 1.04 | 0.55 | 0.77 | 0.66 | 0.80 | 0.96 |

| Intersection Summary | | | |
|---|---|---|---|
| Cycle Length: 120 | | | |
| Actuated Cycle Length: 120 | | | |
| Offset: 84 (70%), Referenced to phase 2:NBT and 6:SBT, Start of Green | | | |
| Natural Cycle: 125 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 1.04 | | | |
| Intersection Signal Delay: 50.0 | | Intersection LOS: D | |
| Intersection Capacity Utilization 109.2% | | ICU Level of Service H | |
| Analysis Period (min) 15 | | | |

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Riverside Dr & Hog's Back Rd/Brookfield Rd



| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 7 | 0 | 62 | 1 | 62 | 3 | 1030 | 52 | 73 | 1897 | 8 |
| Future Volume (vph) | 7 | 0 | 62 | 1 | 62 | 3 | 1030 | 52 | 73 | 1897 | 8 |
| Lane Group Flow (vph) | 7 | 5 | 0 | 63 | 62 | 3 | 1030 | 52 | 73 | 1897 | 8 |
| Turn Type | Perm | NA | Perm | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | | 4 | | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | 4 | | 8 | | 8 | | | 2 | | | 6 |
| Detector Phase | 4 | 4 | 8 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 30.8 | 30.8 | 30.8 | 30.8 | 30.8 | 10.8 | 26.6 | 26.6 | 10.8 | 26.6 | 26.6 |
| Total Split (s) | 31.0 | 31.0 | 31.0 | 31.0 | 31.0 | 14.0 | 75.0 | 75.0 | 14.0 | 75.0 | 75.0 |
| Total Split (%) | 25.8% | 25.8% | 25.8% | 25.8% | 25.8% | 11.7% | 62.5% | 62.5% | 11.7% | 62.5% | 62.5% |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| All-Red Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 2.1 | 1.9 | 1.9 | 2.1 | 1.9 | 1.9 |
| 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) | 6.8 | 6.8 | | 6.8 | 6.8 | 5.8 | 5.6 | 5.6 | 5.8 | 5.6 | 5.6 |
| Lead/Lag | | | | | | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | | | | | | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | C-Max | C-Max | None | C-Max | C-Max |
| Act Effct Green (s) | 12.2 | 12.2 | | 12.2 | 12.2 | 5.8 | 85.9 | 85.9 | 10.7 | 97.5 | 97.5 |
| Actuated g/C Ratio | 0.10 | 0.10 | | 0.10 | 0.10 | 0.05 | 0.72 | 0.72 | 0.09 | 0.81 | 0.81 |
| v/c Ratio | 0.05 | 0.02 | | 0.48 | 0.28 | 0.04 | 0.42 | 0.05 | 0.48 | 0.69 | 0.01 |
| Control Delay | 47.9 | 0.2 | | 62.6 | 10.6 | 55.0 | 10.4 | 0.7 | 70.0 | 7.1 | 0.0 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.9 | 0.2 | | 62.6 | 10.6 | 55.0 | 10.4 | 0.7 | 70.0 | 7.1 | 0.0 |
| LOS | D | A | | E | B | D | B | A | E | A | A |
| Approach Delay | | 28.0 | | 36.8 | | | 10.1 | | | 9.4 | |
| Approach LOS | | C | | D | | | B | | | A | |
| Queue Length 50th (m) | 1.5 | 0.0 | | 14.4 | 0.0 | 0.7 | 56.2 | 0.0 | 18.3 | 32.4 | 0.0 |
| Queue Length 95th (m) | 5.9 | 0.0 | | 27.8 | 9.4 | 3.9 | 87.5 | 1.7 | m19.8 | m223.8 | m0.0 |
| Internal Link Dist (m) | | 58.8 | | 118.5 | | | 110.2 | | | 196.4 | |
| Turn Bay Length (m) | | | | | 35.0 | 50.0 | | 50.0 | 90.0 | | 55.0 |
| Base Capacity (vph) | 257 | 406 | | 261 | 366 | 115 | 2426 | 1110 | 155 | 2753 | 1248 |
| 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 | 0.03 | 0.01 | | 0.24 | 0.17 | 0.03 | 0.42 | 0.05 | 0.47 | 0.69 | 0.01 |

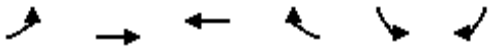
| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Offset: 112 (93%), Referenced to phase 2:NBT and 6:SBT, Start of Green | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.69 | |
| Intersection Signal Delay: 10.8 | Intersection LOS: B |
| Intersection Capacity Utilization 84.7% | ICU Level of Service E |
| Analysis Period (min) 15 | |

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Riverside Dr & Ridgewood Ave

| Lane Group | EBT | WBT | SBL |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | 87 | 97 | 9 |
| Future Volume (vph) | 87 | 97 | 9 |
| Lane Group Flow (vph) | 125 | 110 | 37 |
| Sign Control | Free | Free | Stop |

| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 23.7% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |



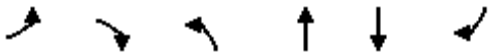
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 38 | 87 | 97 | 13 | 9 | 28 |
| Future Volume (Veh/h) | 38 | 87 | 97 | 13 | 9 | 28 |
| Sign Control | | Free | Free | | Stop | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly flow rate (vph) | 38 | 87 | 97 | 13 | 9 | 28 |
| Pedestrians | | | | | | |
| Lane Width (m) | | | | | | |
| Walking Speed (m/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | None | None | | | |
| Median storage veh) | | | | | | |
| Upstream signal (m) | | 143 | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 110 | | | | 266 | 104 |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 110 | | | | 266 | 104 |
| tC, single (s) | 4.1 | | | | 6.4 | 6.2 |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 2.2 | | | | 3.5 | 3.3 |
| p0 queue free % | 97 | | | | 99 | 97 |
| cM capacity (veh/h) | 1480 | | | | 704 | 951 |

| Direction, Lane # | EB 1 | WB 1 | SB 1 |
|---|---|---|---|
| Volume Total | 125 | 110 | 37 |
| Volume Left | 38 | 0 | 9 |
| Volume Right | 0 | 13 | 28 |
| cSH | 1480 | 1700 | 876 |
| Volume to Capacity | 0.03 | 0.06 | 0.04 |
| Queue Length 95th (m) | 0.6 | 0.0 | 1.0 |
| Control Delay (s) | 2.4 | 0.0 | 9.3 |
| Lane LOS | A | | A |
| Approach Delay (s) | 2.4 | 0.0 | 9.3 |
| Approach LOS | | | A |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 2.4 | | |
| Intersection Capacity Utilization | 23.7% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBL | NBT | SBT |
|---|---|---|---|
| Lane Configurations | | | |
| Traffic Volume (vph) | 36 | 49 | 243 |
| Future Volume (vph) | 36 | 49 | 243 |
| Lane Group Flow (vph) | 92 | 95 | 291 |
| Sign Control | Stop | Stop | Stop |

| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization 37.7% | | ICU Level of Service A |
| Analysis Period (min) 15 | | |



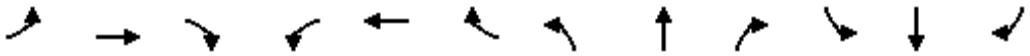
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Stop | Stop | |
| Traffic Volume (vph) | 36 | 56 | 46 | 49 | 243 | 48 |
| Future Volume (vph) | 36 | 56 | 46 | 49 | 243 | 48 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Hourly flow rate (vph) | 36 | 56 | 46 | 49 | 243 | 48 |

| Direction, Lane # | EB 1 | NB 1 | SB 1 |
|---|---|---|---|
| Volume Total (vph) | 92 | 95 | 291 |
| Volume Left (vph) | 36 | 46 | 0 |
| Volume Right (vph) | 56 | 0 | 48 |
| Hadj (s) | -0.25 | 0.13 | -0.06 |
| Departure Headway (s) | 4.5 | 4.6 | 4.2 |
| Degree Utilization, x | 0.11 | 0.12 | 0.34 |
| Capacity (veh/h) | 734 | 759 | 837 |
| Control Delay (s) | 8.1 | 8.2 | 9.3 |
| Approach Delay (s) | 8.1 | 8.2 | 9.3 |
| Approach LOS | A | A | A |

| Intersection Summary | | | |
|---|---|---|---|
| Delay | 8.8 | | |
| Level of Service | A | | |
| Intersection Capacity Utilization | 37.7% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Lane Group | EBT | WBT | NBT | SBT |
|---|---|---|---|---|
| Lane Configurations | | | | |
| Traffic Volume (vph) | 2 | 4 | 23 | 80 |
| Future Volume (vph) | 2 | 4 | 23 | 80 |
| Lane Group Flow (vph) | 113 | 8 | 24 | 389 |
| Sign Control | Stop | Stop | Stop | Stop |

| Intersection Summary | | |
|---|---|---|
| Control Type: Unsignalized | | |
| Intersection Capacity Utilization | 47.4% | ICU Level of Service A |
| Analysis Period (min) | 15 | |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Sign Control | | Stop | | | Stop | | | Stop | | | Stop | |
| Traffic Volume (vph) | 104 | 2 | 7 | 0 | 4 | 4 | 1 | 23 | 0 | 8 | 80 | 301 |
| Future Volume (vph) | 104 | 2 | 7 | 0 | 4 | 4 | 1 | 23 | 0 | 8 | 80 | 301 |
| Peak Hour 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 |
| Hourly flow rate (vph) | 104 | 2 | 7 | 0 | 4 | 4 | 1 | 23 | 0 | 8 | 80 | 301 |

| Direction, Lane # | EB 1 | WB 1 | NB 1 | SB 1 |
|---|---|---|---|---|
| Volume Total (vph) | 113 | 8 | 24 | 389 |
| Volume Left (vph) | 104 | 0 | 1 | 8 |
| Volume Right (vph) | 7 | 4 | 0 | 301 |
| Hadj (s) | 0.18 | -0.27 | 0.04 | -0.43 |
| Departure Headway (s) | 4.9 | 4.6 | 4.6 | 3.8 |
| Degree Utilization, x | 0.16 | 0.01 | 0.03 | 0.41 |
| Capacity (veh/h) | 672 | 695 | 734 | 912 |
| Control Delay (s) | 8.8 | 7.7 | 7.8 | 9.5 |
| Approach Delay (s) | 8.8 | 7.7 | 7.8 | 9.5 |
| Approach LOS | A | A | A | A |

| Intersection Summary | | | | |
|---|---|---|---|---|
| Delay | 9.2 | | | |
| Level of Service | A | | | |
| Intersection Capacity Utilization | 47.4% | ICU Level of Service | A | |
| Analysis Period (min) | 15 | | | |

# Roundabout Analysis Reports

# MOVEMENT SUMMARY

## Site: 101 [Existing AM]

New Site
Site Category: (None)
Roundabout

**Movement Performance - Vehicles**

| Mov ID | Turn | Demand Flows Total veh/h | HV % | Deg. Satn v/c | Average Delay sec | Level of Service | 95% Back of Queue Vehicles veh | Distance m | Prop. Queued | Effective Stop Rate | Aver. No. Cycles | Average Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| South: Flannery Dr | | | | | | | | | | | | |
| 1 | L2 | 94 | 2.0 | 0.295 | 9.1 | LOS A | 1.3 | 9.1 | 0.46 | 0.61 | 0.46 | 48.0 |
| 3 | R2 | 204 | 2.0 | 0.295 | 4.6 | LOS A | 1.3 | 9.1 | 0.46 | 0.61 | 0.46 | 46.5 |
| Approach | | 299 | 2.0 | 0.295 | 6.0 | LOS A | 1.3 | 9.1 | 0.46 | 0.61 | 0.46 | 47.0 |
| East: Airport Pkwy NB On-Off / SB On Ramps | | | | | | | | | | | | |
| 4 | L2 | 4 | 2.0 | 0.198 | 7.8 | LOS A | 1.0 | 7.1 | 0.25 | 0.33 | 0.25 | 49.6 |
| 5 | T1 | 249 | 2.0 | 0.198 | 2.9 | LOS A | 1.0 | 7.1 | 0.25 | 0.33 | 0.25 | 49.3 |
| Approach | | 253 | 2.0 | 0.198 | 3.0 | LOS A | 1.0 | 7.1 | 0.25 | 0.33 | 0.25 | 49.3 |
| North: Airport Pkwy SB Off Ramp | | | | | | | | | | | | |
| 7 | L2 | 3 | 2.0 | 0.197 | 9.1 | LOS A | 1.1 | 8.0 | 0.49 | 0.52 | 0.49 | 48.6 |
| 8 | T1 | 34 | 2.0 | 0.197 | 4.2 | LOS A | 1.1 | 8.0 | 0.49 | 0.52 | 0.49 | 48.3 |
| 9 | R2 | 196 | 2.0 | 0.197 | 4.6 | LOS A | 1.1 | 8.0 | 0.49 | 0.52 | 0.49 | 47.0 |
| Approach | | 233 | 2.0 | 0.197 | 4.6 | LOS A | 1.1 | 8.0 | 0.49 | 0.52 | 0.49 | 47.2 |
| West: Brookfield Rd | | | | | | | | | | | | |
| 11 | T1 | 401 | 2.0 | 0.153 | 2.7 | LOS A | 0.9 | 6.1 | 0.16 | 0.30 | 0.16 | 49.6 |
| 12 | R2 | 74 | 2.0 | 0.153 | 3.5 | LOS A | 0.9 | 6.1 | 0.16 | 0.31 | 0.16 | 48.2 |
| Approach | | 476 | 2.0 | 0.153 | 2.8 | LOS A | 0.9 | 6.1 | 0.16 | 0.30 | 0.16 | 49.4 |
| All Vehicles | | 1261 | 2.0 | 0.295 | 3.9 | LOS A | 1.3 | 9.1 | 0.31 | 0.42 | 0.31 | 48.4 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

## Site: 101 [Existing PM]

New Site
Site Category: (None)
Roundabout

**Movement Performance - Vehicles**

| Mov ID | Turn | Demand Flows Total veh/h | HV % | Deg. Satn v/c | Average Delay sec | Level of Service | 95% Back of Queue Vehicles veh | Distance m | Prop. Queued | Effective Stop Rate | Aver. No. Cycles | Average Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| South: Flannery Dr | | | | | | | | | | | | |
| 1 | L2 | 37 | 2.0 | 0.117 | 9.1 | LOS A | 0.5 | 3.4 | 0.48 | 0.61 | 0.48 | 47.9 |
| 3 | R2 | 73 | 2.0 | 0.117 | 4.6 | LOS A | 0.5 | 3.4 | 0.48 | 0.61 | 0.48 | 46.4 |
| Approach | | 110 | 2.0 | 0.117 | 6.1 | LOS A | 0.5 | 3.4 | 0.48 | 0.61 | 0.48 | 46.9 |
| East: Airport Pkwy NB On-Off / SB On Ramps | | | | | | | | | | | | |
| 4 | L2 | 18 | 2.0 | 0.098 | 7.6 | LOS A | 0.5 | 3.3 | 0.13 | 0.34 | 0.13 | 49.7 |
| 5 | T1 | 116 | 2.0 | 0.098 | 2.7 | LOS A | 0.5 | 3.3 | 0.13 | 0.34 | 0.13 | 49.4 |
| Approach | | 133 | 2.0 | 0.098 | 3.3 | LOS A | 0.5 | 3.3 | 0.13 | 0.34 | 0.13 | 49.4 |
| North: Airport Pkwy SB Off Ramp | | | | | | | | | | | | |
| 7 | L2 | 11 | 2.0 | 0.413 | 8.4 | LOS A | 2.8 | 20.0 | 0.42 | 0.43 | 0.42 | 48.9 |
| 8 | T1 | 262 | 2.0 | 0.413 | 3.5 | LOS A | 2.8 | 20.0 | 0.42 | 0.43 | 0.42 | 48.5 |
| 9 | R2 | 300 | 2.0 | 0.413 | 4.0 | LOS A | 2.8 | 20.0 | 0.42 | 0.43 | 0.42 | 47.3 |
| Approach | | 573 | 2.0 | 0.413 | 3.8 | LOS A | 2.8 | 20.0 | 0.42 | 0.43 | 0.42 | 47.9 |
| West: Brookfield Rd | | | | | | | | | | | | |
| 11 | T1 | 488 | 2.0 | 0.239 | 3.8 | LOS A | 1.5 | 10.9 | 0.48 | 0.44 | 0.48 | 48.3 |
| 12 | R2 | 158 | 2.0 | 0.239 | 4.3 | LOS A | 1.5 | 10.9 | 0.47 | 0.44 | 0.47 | 47.0 |
| Approach | | 646 | 2.0 | 0.239 | 3.9 | LOS A | 1.5 | 10.9 | 0.48 | 0.44 | 0.48 | 48.0 |
| All Vehicles | | 1462 | 2.0 | 0.413 | 4.0 | LOS A | 2.8 | 20.0 | 0.42 | 0.44 | 0.42 | 48.0 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

## Site: 101 [Total Background 2024 and 2029 AM]

New Site
Site Category: (None)
Roundabout

**Movement Performance - Vehicles**

| Mov ID | Turn | Demand Flows Total veh/h | HV % | Deg. Satn v/c | Average Delay sec | Level of Service | 95% Back of Queue Vehicles veh | Distance m | Prop. Queued | Effective Stop Rate | Aver. No. Cycles | Average Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| South: Flannery Dr | | | | | | | | | | | | |
| 1 | L2 | 87 | 2.0 | 0.289 | 9.0 | LOS A | 1.2 | 8.9 | 0.46 | 0.60 | 0.46 | 48.1 |
| 3 | R2 | 207 | 2.0 | 0.289 | 4.6 | LOS A | 1.2 | 8.9 | 0.46 | 0.60 | 0.46 | 46.6 |
| Approach | | 294 | 2.0 | 0.289 | 5.9 | LOS A | 1.2 | 8.9 | 0.46 | 0.60 | 0.46 | 47.0 |
| East: Airport Pkwy NB On-Off / SB On Ramps | | | | | | | | | | | | |
| 4 | L2 | 13 | 2.0 | 0.184 | 7.8 | LOS A | 0.9 | 6.5 | 0.23 | 0.34 | 0.23 | 49.6 |
| 5 | T1 | 224 | 2.0 | 0.184 | 2.9 | LOS A | 0.9 | 6.5 | 0.23 | 0.34 | 0.23 | 49.2 |
| Approach | | 237 | 2.0 | 0.184 | 3.2 | LOS A | 0.9 | 6.5 | 0.23 | 0.34 | 0.23 | 49.2 |
| North: Airport Pkwy SB Off Ramp | | | | | | | | | | | | |
| 7 | L2 | 3 | 2.0 | 0.186 | 8.9 | LOS A | 1.0 | 7.4 | 0.47 | 0.51 | 0.47 | 48.7 |
| 8 | T1 | 31 | 2.0 | 0.186 | 4.0 | LOS A | 1.0 | 7.4 | 0.47 | 0.51 | 0.47 | 48.3 |
| 9 | R2 | 189 | 2.0 | 0.186 | 4.5 | LOS A | 1.0 | 7.4 | 0.47 | 0.51 | 0.47 | 47.1 |
| Approach | | 223 | 2.0 | 0.186 | 4.5 | LOS A | 1.0 | 7.4 | 0.47 | 0.51 | 0.47 | 47.3 |
| West: Brookfield Rd | | | | | | | | | | | | |
| 11 | T1 | 390 | 2.0 | 0.148 | 2.7 | LOS A | 0.8 | 5.7 | 0.17 | 0.30 | 0.17 | 49.6 |
| 12 | R2 | 69 | 2.0 | 0.148 | 3.5 | LOS A | 0.8 | 5.7 | 0.16 | 0.31 | 0.16 | 48.2 |
| Approach | | 459 | 2.0 | 0.148 | 2.8 | LOS A | 0.8 | 5.7 | 0.17 | 0.30 | 0.17 | 49.4 |
| All Vehicles | | 1213 | 2.0 | 0.289 | 3.9 | LOS A | 1.2 | 8.9 | 0.31 | 0.42 | 0.31 | 48.4 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

## Site: 101 [Total Background 2024 and 2029 PM]

New Site
Site Category: (None)
Roundabout

**Movement Performance - Vehicles**

| Mov ID | Turn | Demand Flows Total veh/h | HV % | Deg. Satn v/c | Average Delay sec | Level of Service | 95% Back of Queue Vehicles veh | Distance m | Prop. Queued | Effective Stop Rate | Aver. No. Cycles | Average Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| South: Flannery Dr | | | | | | | | | | | | |
| 1 | L2 | 36 | 2.0 | 0.120 | 9.0 | LOS A | 0.5 | 3.5 | 0.47 | 0.60 | 0.47 | 48.0 |
| 3 | R2 | 79 | 2.0 | 0.120 | 4.5 | LOS A | 0.5 | 3.5 | 0.47 | 0.60 | 0.47 | 46.5 |
| Approach | | 115 | 2.0 | 0.120 | 5.9 | LOS A | 0.5 | 3.5 | 0.47 | 0.60 | 0.47 | 47.0 |
| East: Airport Pkwy NB On-Off / SB On Ramps | | | | | | | | | | | | |
| 4 | L2 | 37 | 2.0 | 0.104 | 7.6 | LOS A | 0.5 | 3.4 | 0.13 | 0.39 | 0.13 | 49.4 |
| 5 | T1 | 104 | 2.0 | 0.104 | 2.7 | LOS A | 0.5 | 3.4 | 0.13 | 0.39 | 0.13 | 49.0 |
| Approach | | 141 | 2.0 | 0.104 | 4.0 | LOS A | 0.5 | 3.4 | 0.13 | 0.39 | 0.13 | 49.1 |
| North: Airport Pkwy SB Off Ramp | | | | | | | | | | | | |
| 7 | L2 | 10 | 2.0 | 0.396 | 8.4 | LOS A | 2.6 | 18.8 | 0.42 | 0.44 | 0.42 | 48.9 |
| 8 | T1 | 236 | 2.0 | 0.396 | 3.5 | LOS A | 2.6 | 18.8 | 0.42 | 0.44 | 0.42 | 48.5 |
| 9 | R2 | 299 | 2.0 | 0.396 | 4.0 | LOS A | 2.6 | 18.8 | 0.42 | 0.44 | 0.42 | 47.3 |
| Approach | | 545 | 2.0 | 0.396 | 3.9 | LOS A | 2.6 | 18.8 | 0.42 | 0.44 | 0.42 | 47.8 |
| West: Brookfield Rd | | | | | | | | | | | | |
| 11 | T1 | 460 | 2.0 | 0.223 | 3.7 | LOS A | 1.4 | 10.0 | 0.47 | 0.44 | 0.47 | 48.4 |
| 12 | R2 | 146 | 2.0 | 0.223 | 4.3 | LOS A | 1.4 | 10.0 | 0.45 | 0.43 | 0.45 | 47.1 |
| Approach | | 606 | 2.0 | 0.223 | 3.9 | LOS A | 1.4 | 10.0 | 0.46 | 0.43 | 0.46 | 48.0 |
| All Vehicles | | 1407 | 2.0 | 0.396 | 4.0 | LOS A | 2.6 | 18.8 | 0.41 | 0.44 | 0.41 | 48.0 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

## Site: 101 [Total Projected 2024 and 2029 AM]

New Site
Site Category: (None)
Roundabout

| Movement Performance - Vehicles | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mov ID | Turn | Demand Flows Total veh/h | HV % | Deg. Satn v/c | Average Delay sec | Level of Service | 95% Back of Queue Vehicles veh | Distance m | Prop. Queued | Effective Stop Rate | Aver. No. Cycles | Average Speed km/h |
| South: Flannery Dr | | | | | | | | | | | | |
| 1 | L2 | 87 | 2.0 | 0.304 | 9.0 | LOS A | 1.3 | 9.5 | 0.46 | 0.60 | 0.46 | 48.1 |
| 3 | R2 | 222 | 2.0 | 0.304 | 4.6 | LOS A | 1.3 | 9.5 | 0.46 | 0.60 | 0.46 | 46.6 |
| Approach | | 309 | 2.0 | 0.304 | 5.8 | LOS A | 1.3 | 9.5 | 0.46 | 0.60 | 0.46 | 47.0 |
| East: Airport Pkwy NB On-Off / SB On Ramps | | | | | | | | | | | | |
| 4 | L2 | 20 | 2.0 | 0.189 | 7.8 | LOS A | 0.9 | 6.7 | 0.23 | 0.35 | 0.23 | 49.5 |
| 5 | T1 | 224 | 2.0 | 0.189 | 2.9 | LOS A | 0.9 | 6.7 | 0.23 | 0.35 | 0.23 | 49.1 |
| Approach | | 244 | 2.0 | 0.189 | 3.3 | LOS A | 0.9 | 6.7 | 0.23 | 0.35 | 0.23 | 49.2 |
| North: Airport Pkwy SB Off Ramp | | | | | | | | | | | | |
| 7 | L2 | 3 | 2.0 | 0.186 | 9.0 | LOS A | 1.0 | 7.4 | 0.48 | 0.51 | 0.48 | 48.7 |
| 8 | T1 | 31 | 2.0 | 0.186 | 4.1 | LOS A | 1.0 | 7.4 | 0.48 | 0.51 | 0.48 | 48.3 |
| 9 | R2 | 189 | 2.0 | 0.186 | 4.5 | LOS A | 1.0 | 7.4 | 0.48 | 0.51 | 0.48 | 47.1 |
| Approach | | 223 | 2.0 | 0.186 | 4.5 | LOS A | 1.0 | 7.4 | 0.48 | 0.51 | 0.48 | 47.3 |
| West: Brookfield Rd | | | | | | | | | | | | |
| 11 | T1 | 390 | 2.0 | 0.149 | 2.7 | LOS A | 0.8 | 5.6 | 0.18 | 0.31 | 0.18 | 49.5 |
| 12 | R2 | 69 | 2.0 | 0.149 | 3.5 | LOS A | 0.8 | 5.6 | 0.17 | 0.32 | 0.17 | 48.1 |
| Approach | | 459 | 2.0 | 0.149 | 2.8 | LOS A | 0.8 | 5.6 | 0.18 | 0.31 | 0.18 | 49.3 |
| All Vehicles | | 1235 | 2.0 | 0.304 | 4.0 | LOS A | 1.3 | 9.5 | 0.31 | 0.43 | 0.31 | 48.3 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

# MOVEMENT SUMMARY

## Site: 101 [Total Projected 2024 and 2029 PM]

New Site
Site Category: (None)
Roundabout

**Movement Performance - Vehicles**

| Mov ID | Turn | Demand Flows Total veh/h | HV % | Deg. Satn v/c | Average Delay sec | Level of Service | 95% Back of Queue Vehicles veh | Distance m | Prop. Queued | Effective Stop Rate | Aver. No. Cycles | Average Speed km/h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| South: Flannery Dr | | | | | | | | | | | | |
| 1 | L2 | 36 | 2.0 | 0.129 | 9.0 | LOS A | 0.5 | 3.9 | 0.47 | 0.60 | 0.47 | 48.1 |
| 3 | R2 | 88 | 2.0 | 0.129 | 4.6 | LOS A | 0.5 | 3.9 | 0.47 | 0.60 | 0.47 | 46.5 |
| Approach | | 124 | 2.0 | 0.129 | 5.8 | LOS A | 0.5 | 3.9 | 0.47 | 0.60 | 0.47 | 47.0 |
| East: Airport Pkwy NB On-Off / SB On Ramps | | | | | | | | | | | | |
| 4 | L2 | 50 | 2.0 | 0.113 | 7.6 | LOS A | 0.5 | 3.8 | 0.13 | 0.41 | 0.13 | 49.2 |
| 5 | T1 | 104 | 2.0 | 0.113 | 2.7 | LOS A | 0.5 | 3.8 | 0.13 | 0.41 | 0.13 | 48.8 |
| Approach | | 154 | 2.0 | 0.113 | 4.3 | LOS A | 0.5 | 3.8 | 0.13 | 0.41 | 0.13 | 48.9 |
| North: Airport Pkwy SB Off Ramp | | | | | | | | | | | | |
| 7 | L2 | 10 | 2.0 | 0.400 | 8.5 | LOS A | 2.7 | 19.1 | 0.43 | 0.45 | 0.43 | 48.8 |
| 8 | T1 | 236 | 2.0 | 0.400 | 3.6 | LOS A | 2.7 | 19.1 | 0.43 | 0.45 | 0.43 | 48.5 |
| 9 | R2 | 299 | 2.0 | 0.400 | 4.1 | LOS A | 2.7 | 19.1 | 0.43 | 0.45 | 0.43 | 47.2 |
| Approach | | 545 | 2.0 | 0.400 | 3.9 | LOS A | 2.7 | 19.1 | 0.43 | 0.45 | 0.43 | 47.8 |
| West: Brookfield Rd | | | | | | | | | | | | |
| 11 | T1 | 460 | 2.0 | 0.225 | 3.8 | LOS A | 1.4 | 10.1 | 0.48 | 0.44 | 0.48 | 48.3 |
| 12 | R2 | 146 | 2.0 | 0.225 | 4.4 | LOS A | 1.4 | 10.1 | 0.46 | 0.44 | 0.46 | 47.0 |
| Approach | | 606 | 2.0 | 0.225 | 3.9 | LOS A | 1.4 | 10.1 | 0.47 | 0.44 | 0.47 | 48.0 |
| All Vehicles | | 1429 | 2.0 | 0.400 | 4.1 | LOS A | 2.7 | 19.1 | 0.42 | 0.45 | 0.42 | 47.9 |

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: SIDRA Roundabout LOS.
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.