TRANSPORTATION IMPACT ASSESSMENT
STEP 5 – TIA SUBMISSION

Project No.: CCO-22-2933

Prepared for:

BBS Construction
1805 Woodward Drive
Ottawa, ON
K2C 0P9

Prepared by:

McIntosh Perry Consulting Engineers Ltd.
115 Walgreen Road
Carp, ON
K0A 1L0

August 2022

McINTOSH PERRY

EXECUTIVE SUMMARY

McIntosh Perry Consulting Engineers Ltd. (MP) has been retained by BBS Construction to prepare a Transportation Impact Assessment (TIA) for the proposed expansion of the existing Myers Dealership lot located at 4149 Strandherd Drive, Ottawa ON. The two proposed buildings, dedicated to Automobile Sales, have a GFA of 1,640 m^2 (Myers Nissan) and 2,989 m^2 (Myers Subaru), and includes two entrances fronting on Strandherd Drive, and two entrances fronting onto Dealership Drive.

Previous Step 4 of the TIA was submitted in April 2022, with comments received by the City in June 2022. All comments were review and report was updated based on the comments and the amended site plan. However, with updates to the site plan in August 2022 caused a reduction of the GFA of the two new proposed dealerships. The August 2022 iteration of the site plan was developed which included:

- Myers Subaru Dealership with a GFA of 2,989 m^2 from the original 3,430 m^2;
- Myers Nissan Dealership with a GFA of 1,640 m^2 from the original 2,011 m^2,
- A reduction in parking totalling 558 from the original 571 parking spaces.

MP reviewed the following traffic scenarios for the study area:

- existing road-network for the 2022 existing conditions as a baseline model.
- The 2022 and the 2023 buildout year horizons, background traffic only.
- The 5-year horizon, background traffic only.
- The 2022 and the 2023 buildout year horizons, total traffic.
- The 5-year horizon, total traffic.

Where background scenarios included only the background traffic growth and acted as a baseline for the study years where the development was not built. Total traffic scenarios represented the study years where the proposed development has is built, incorporating both the background traffic growth and the development generated traffic on within the study area.

Based on traffic assessment and analysis, the proposed development is anticipated to have minimal impact to the proposed study area and majority of traffic movements and intersection approaches are expected to operate at or below capacity with the traffic generated by as per the statistics noted in the site plan associated with the April 2022 TIA Step 4 submission. As the newly amended August 2022 site plan proposed a total reduction of 812 m^2 for both proposed dealerships combined, it is anticipated that the proposed development will generate fewer trips then proposed in the report and as such will have less of an impact on the roadway network then shown in the report.

Prepared by,

William Sherwin, EIT

Transportation and Traffic Engineering Intern

w.sherwin@mcintoshperry.com

613.714.5929

Thomas Gryz, M.A.Sc., P.Eng.

Transportation and Traffic Engineer

t.gryz@mcintoshperry.com

613.903.5772

McINTOSH PERRY

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1.0 SCREENING FORM

The following section describes the initial assessment of the proposed development with respect to the Transportation Impact Assessment (TIA) Screening Form and will provide reasoning for potential triggers. The TIA screening form is attached in Appendix A.

1.1 Trip Generation Triggers

The developments land use types include two separate buildings dedicated to Automobile Sales, with a GFA of 2,011 m^2 (Myers Nissan) and 3,430m^2 (Myers Subaru). The development size is larger than the minimum of 1,000 m^2 for destination retail. As such, the criteria for the trip generation trigger is met.

1.2 Location Trigger

The proposed development is neither located within a Design Priority Area (DPA) or a Transit-oriented Development (TOD) zone. The site will have a driveway that accesses Strandherd Drive, which is designated as part of the City's Spine Bicycle Network. As such, the criteria for a location trigger has been met.

1.3 Safety Trigger

The proposed development has all existing and proposed driveways within 150 m of a Signalized intersection (Strandherd Drive and Dealership Drive) with two access onto Strandherd Drive and the other three onto Dealership Drive. As such, the criteria for a safety trigger has been met.

2.0 DESCRIPTION OF PROPOSED DEVELOPMENT

The proposed development will be located at 4149 Strandherd Drive located in Barrhaven. The proposed development is located in the west quadrant of the intersection on Strandherd Drive and Dealership Drive. The proposed development will include two separate buildings dedicated to Automobile Sales, with a GFA of 2,011 m^2 and 3,430m^2. The proposed site already has an existing dealership on the lands with a GFA of 2,970 m^2. The build-out date is expected to be 2022 for phase one (first dealership) and 2023 for the second dealership. Figure 2.1 shows the location of the proposed development, subject lands, and surrounding area. The site plan can be found in Appendix B.

Figure 2.1 Proposed Development Location

The development is located in a Business Park Industrial Zone with a subcode of IP[2635] H18 and IP[2636] H(22) under The City of Ottawa Zoning By-Law. The zone permits a variety of non-residential uses such as Automobile Dealership, emergency services etc.

3.0 EXISTING CONDITIONS

The following outlines the existing site characteristics and provides a summary of the expected development transportation conditions.

3.1 Roadways

The following section outlines the existing study area roadways, obtained from the City of Ottawa Official Plan, Annex 1 – Road Classification and Right-of-Way. MP performed a field review on April 19, 2021, to confirm geometries, lane configurations and existing conditions carried forward in the TIA.

Strandherd Drive, within the vicinity of the subject site is a two-lane divided urban arterial roadway, consisting of a 44.5 m right-of-way and a posted speed limit of 80 km/h. Strandherd Drive runs east-west overall, however,

Strandhered drives runs from north-south within the vicinity of the proposed development, with paved shoulders on both sides of the roadway. However, Strandherd drive is currently under construction to increase to four-lanes.

Maravasta Drive, within the vicinity of the proposed development is a two-lane undivided urban collector roadway, with an unspecified right-of-way, and an unposted speed limit of 50 km/h. Maravasta Drive runs east-west, with concrete sidewalks on both sides of the roadway.

Dealership Drive, within the vicinity of the proposed development is a two-lane undivided urban collector roadway, with an unspecified right-of-way and an unposted speed limit of 50 km/h. Dealership Drive runs east-west, with concrete sidewalks on both sides of the roadway.

Kennevale Drive, within the vicinity of the proposed development is a two-lane undivided urban collector, with an unspecified right-of-way and a posted speed limit of 40 km/h. Kennevale Drive runs east-west, with concrete sidewalks on both sides of the roadway.

3.2 Intersections

The following section documents the existing study intersections including their control type, lane configurations, turning restrictions, and, any other relevant data. The following three intersections were identified for this study:

- Strandherd Drive at Dealership Drive/Kennevale Drive;
- Dealership Drive and Philsar Street; and,
- Strandherd Drive at Maravasta Drive.

3.2.1 Strandherd Drive at Dealership Drive/Kennevale Drive

Strandherd Drive and Dealership Drive/Kennevale Drive is a four leg, signalized intersection, located to the east of the proposed development.

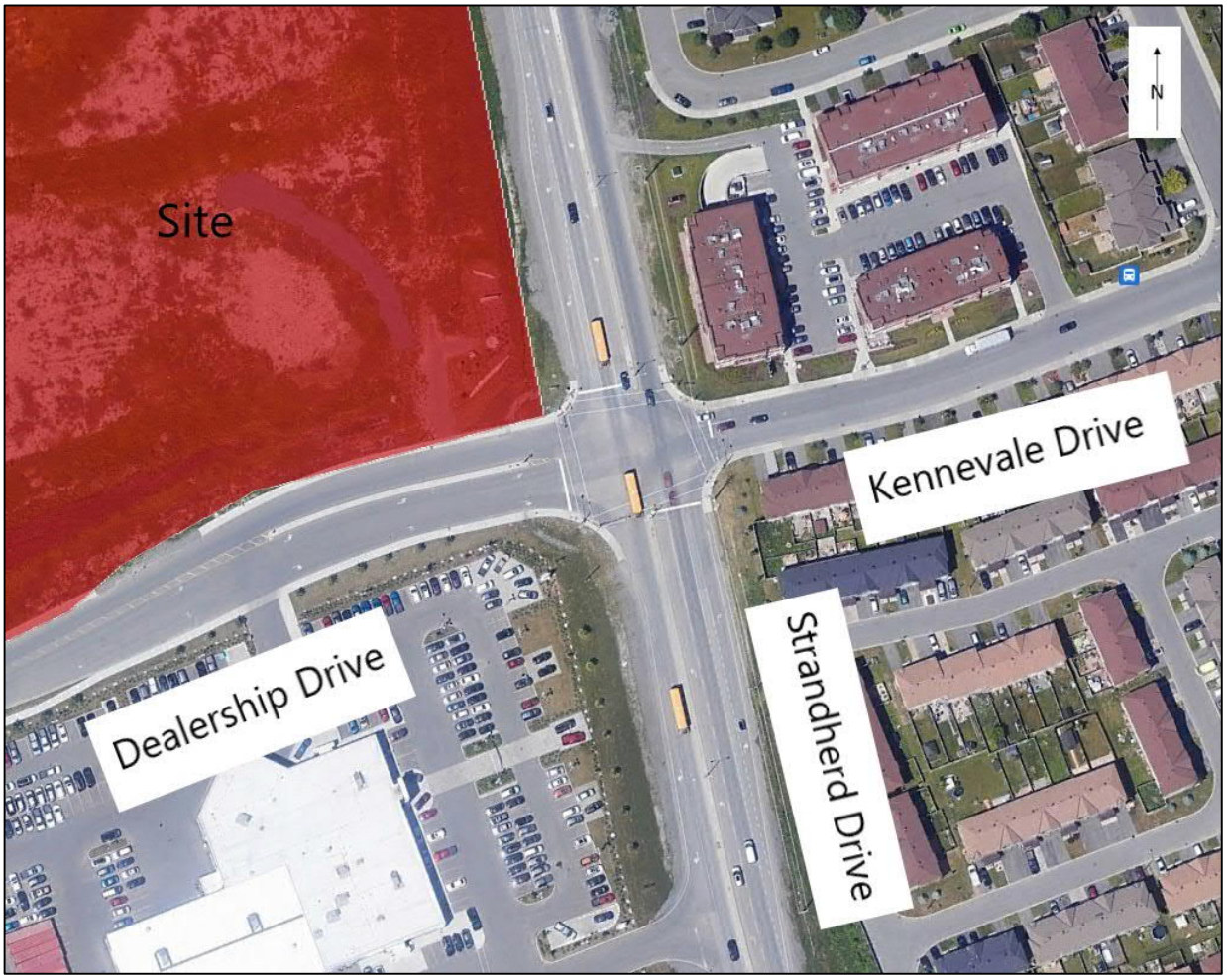

Figure 3.1 Strandherd Drive at Dealership Drive/Kennevale Drive

- Strandherd Drive – Northbound: one left turn lane with a storage of 100 m, one through lane and one right turn lane with a storage of 50 m.
- Strandherd Drive – Southbound: one left turn lane with a storage of 100 m, one through lane and one right turn lane with a storage of 50 m.
- Dealership Drive – Eastbound: one left-turn lane with a storage length of 75 m, one through lane, one right turn lane with a storage length of 75 m.
- Kennevale Drive – Westbound: one left-turn lane with a storage lane of 50 m, one shared through-right turn lane.

3.2.2 Dealership Drive and Philsar Street

Dealership Drive and Philsar Street is a three-legged unsignalized intersection, located adjacent to the proposed southern entrance to the site. Once the proposed development is completed this intersection will then be a four-legged intersection.

Figure 3.2 Dealership Drive at Philsar Street

- Philsar Street – Northbound: One shared left-right turn lane.
- Dealership Drive – Eastbound: One shared through-right turn lane.
- Dealership Drive – Westbound: One shared through-left turn lane.

3.2.3 Strandherd Drive at Maravasta Drive

Strandherd Drive at Maravasta Drive is a four leg, signalized intersection, located to the north of the proposed development.

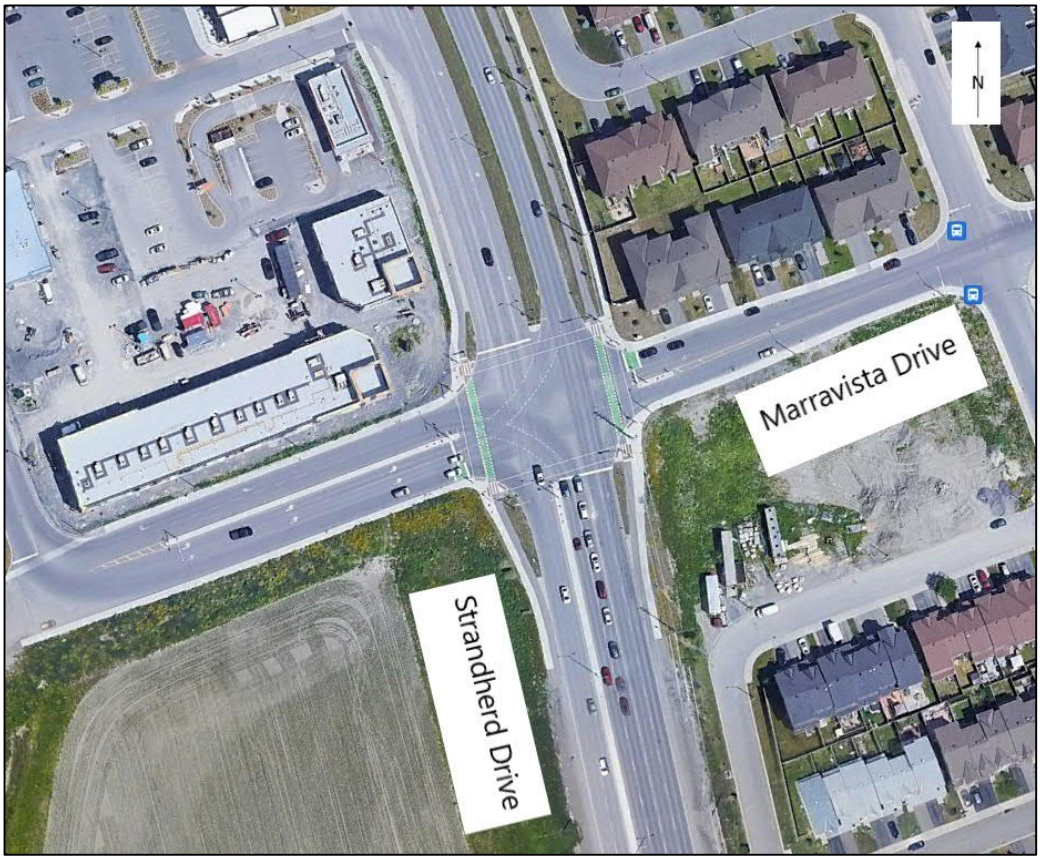

Figure 3.3 Strandherd Drive at Maravasta Drive

- Strandherd Drive – Northbound: two left-turn lane with a storage lane of 125 m, one through lane, one shared through-right turn lane.
- Strandherd Drive – Southbound: one left-turn lane with a storage lane of 150 m, two through lanes, one right-turn lane.
- Maravasta Drive – Eastbound: two left-turn lanes with storage lengths of 85 m, and one shared through-right-turn lane.
- Maravasta Drive – Westbound: one left-turn lane with a storage length of 35 m, and one shared through-right turn lane.

3.3 Existing Driveways

The following section documents the existing driveway entrance within a 200m of the proposed site access. Figure 3.4 illustrates the driveways within the vicinity of the proposed site.

Figure 3.4 Existing Driveways

As shown in Figure 3.4 there are a total of 6 existing access within 200 m of the proposed development. The majority of the entrances belong to other dealerships within the area off of Dealership Drive, Strandherd Drive and Philsar Street. There is also one entrance on the northbound lane of Strandherd Drive that allows access to the shopping plaza adjacent to the proposed site.

3.4 Existing Multi-Use Pathways

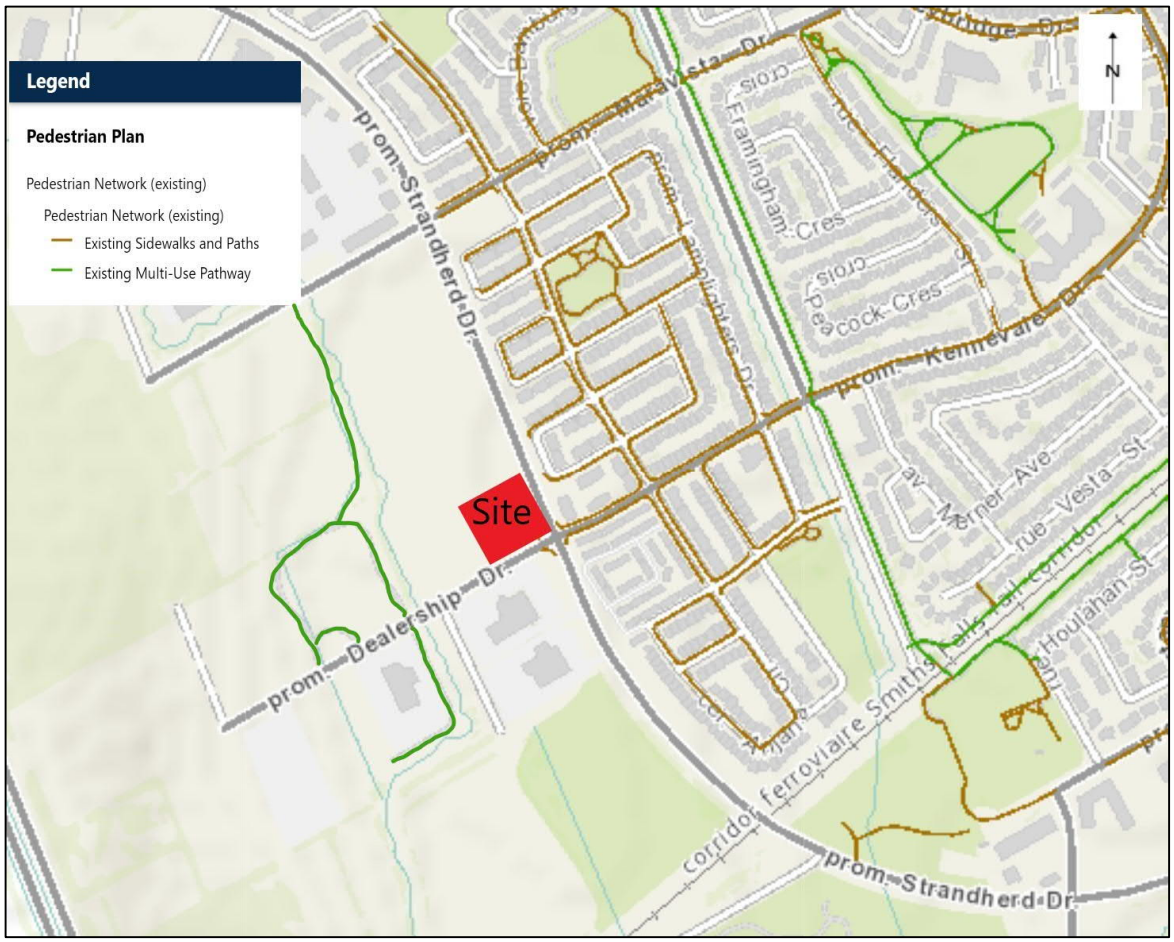

Figure 3.5 Existing Multi-use Pathways

As shown in the Figure 3.5 there is an existing multi use pathways within the vicinity of the proposed development to the west, and a large network of sidewalks to the east.

3.5 Existing Transit Network

The following section documents the existing transit networks within the surrounding area. Figure 3.6 illustrates the existing bus routes within the study area of the proposed site.

Figure 3.6 Existing Transit Routes

Currently there are two (2) transit routes that service the proposed development including:

- Route 99: Provides service from Barrhaven Center to Greenboro/Hurdman Station, operating every 40 minutes;
- Route 170: Provides service from Barrhaven Center to Fallowfield, operating every 30 minutes;

Figure 3.7 Illustrates the location of the transit stops within the vicinity of the proposed development.

Figure 3.7 Transit Stop Locations

3.6 Existing Traffic Management Measures

No area traffic calming measures were identified within a 250 m vicinity of the subject site. Additionally, no traffic calming measures were identified along the Strandherd Drive within the study area.

3.7 Existing Peak Hour Travel Demand by Mode

The proposed site is located in Ottawa's outer suburbs area South Nepean (Barrhaven). Transit mode shares based on the City of Ottawa Transportation Master Plan (TMP) leaving the area to other areas of Ottawa account for 20% of morning peak period trips as of 2011, where the 2031 target for transit mode shares leaving is 26%. The 2011 transit mode shares of the morning peak trips arriving to the area is 6% where the target 2031 rate is 11%.

The observed 2011, 24 hour mode shares from the 2011 O-D Tran Survey for the South Nepean area, where the development is located, is summarized in Table 3.1. O-D survey information can be found in Appendix C.

Table 3.1 O-D Survey Transportation Mode Shares

Mode	From District (%)	To District (%)	Average (%)
Auto Drive	66	66	66
Auto Passenger	15	16	15
Transit	16	15	15
bicycle	0	1	1
Walk	0	0	0
Other	3	2	3

Based on this survey the South Nepean area was shown to have the following mode shares; 15 % of auto passenger, 15% transit, 1 % bicycle, 0 % walking and 3 % other. It should be noted that the other category accounts for trips such as taxis, school buses, motorcycle and scooters. As such, for the purposes of modelling traffic conditions and projections of future conditions, the percentages of "other" trips will be distributed to auto driver, resulting in 69% auto driver trips.

3.8 Existing Collision History

Collision data was provided by the city for the years 2016-2020. The data was reviewed for boundary roads within the study area, as identified in Section 3.0. The data was divided into 4 sections, Table 3.1 illustrates the data.

- Strandherd Drive and Dealership Drive/Kennevale Drive;
- Strandherd Drive and Maravasta Drive;
- Strandherd Drive Between Dealership Drive/Kennevale Drive and Maravasta Drive, and;
- Dealership Drive Between Strandherd Drive and end.

Table 3.1 Collision data

Location	Collisions								
	2016	2017	2018	2019	2020	Total	Cyclist	Pedestrian	Fatalities
Strandherd Drive and Dealership Drive/Kennevale Drive	4	10	8	12	4	38	0	0	0
Strandherd Drive and Maravasta Drive	1	7	8	10	10	36	0	0	0
Strandherd Drive Between Dealership Drive/Kennevale Drive and Maravasta Drive	2	2	1	5	2	12	0	0	0
Dealership Drive Between Strandherd Drive and end	0	0	0	0	1	1	0	0	0

As seen from table 3.1 there were 38 total collisions at the intersection of Strandherd Drive and Dealership Drive/Kennevale Drive, 36 at the intersection of Strandherd Drive and Maravasta Drive, 12 on Strandherd Drive Between Dealership Drive/Kennevale Drive and Maravasta Drive, and 1 on Dealership Drive Between Strandherd Drive and end from the years 2016-2020. Throughout these 5 years there were no collision that involved cyclists, pedestrians or resulted in a Fatality.

3.9 Existing Traffic Volumes

MP obtained TMC data from the City of Ottawa for the following Intersections:

- Strandherd Drive at Dealership Dr / Kennevale Dr (01-18-2018 and 01-20-2018); and,
- Strandherd Drive at Maravasta Drive (01-18-2018 and 01-20-2018).

As well Mp performed traffic movement counts at the intersection of Dealership Drive and Philsar Street (04-05-2022).

MP used a growth factor of 1.5% annually, non-compounding to adjust volumes to 2022 (existing conditions). This factor was determined based on the City of Ottawa Transportation Master Plan, which states that the City of Ottawa is expected to increase its population from 922,00 to 1.14 Million residents from 2011 to 2031, this results in an annual growth rate of 1.1%. Other TIA's completed in the area suggest a 1.5% annual growth rate such as the 3288 and 3300 Borrisokane Road, 4205, 4345 and 4375 Mckenna Casey Drive Transportation Impact Assessment. Since traffic growth is a function of both population and employment growth, a growth rate of

1.5% was used to ensure that both background growths are taken into account. Figure 3.8 illustrates the existing conditions volumes. TMC and signal timing data can be found in Appendix C.

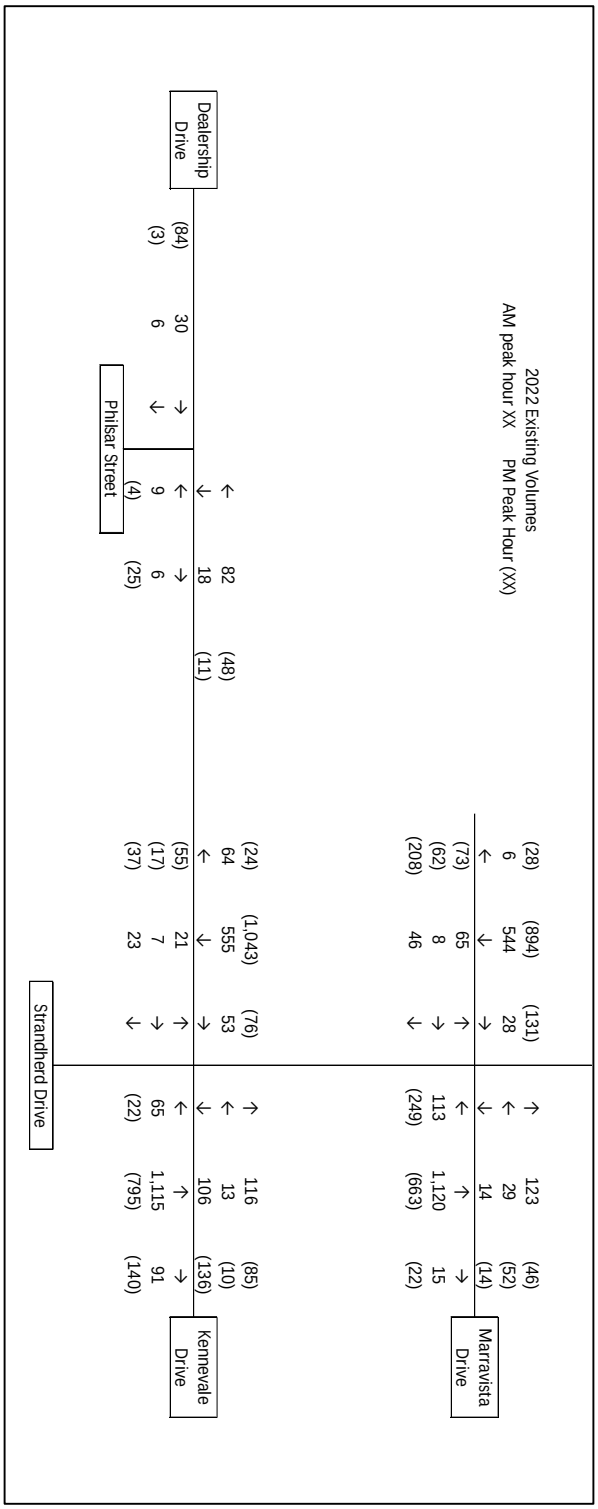

Figure 3.8 Existing Conditions Traffic Movement Volumes

3.10 Existing Traffic Operations

Level of Service (LOS) is a qualitative measure of the operating conditions, based on lane configuration, signal operation/phasing. LOS criteria for signalized and unsignalized intersection based on the Multi Modal Level of Service (MMLOS) Guidelines, are illustrated in Table 3.2.

Table 3.2 Definition of LOS for Intersections

Level of Service	v/c Ratio
A	0 to 0.60
B	0.61 to 0.70
C	0.71 to 0.80
D	0.81 to 0.90
E	0.91 to 1.00
F	> 1.00

Existing traffic operations analysis was performed using Synchro 11 software. Signal timing information was provided by the city. Table 3.3 summarizes the existing conditions.

Table 3.3 Existing Conditions

Movement	AM Peak Hour			PM Peak Hour		
	LOS	V/C	Delay	LOS	V/C	Delay
Strandherd Drive and Dealership Drive/Kennevale Drive						
EBL	A	0.22	50	A	0.32	55
EBT	A	0.05	43	A	0.06	47
EBR	A	0.09	1	A	0.13	3
WBL	B	0.64	65	C	0.74	78
WBTR	A	0.46	15	A	0.33	14
NBL	A	0.13	12	A	0.12	15
NBT	E	1.00	49	C	0.74	24
NBR	A	0.09	3	A	0.15	6
SBL	A	0.42	47	B	0.61	80
SBT	A	0.44	15	D	0.81	20
SBR	A	0.06	6	A	0.02	2
Strandherd Drive and Marravista Drive						
EBL	A	0.32	57	A	0.38	60
EBTR	A	0.19	14	B	0.66	27
WBL	A	0.15	57	A	0.17	58
WBTR	A	0.53	17	A	0.41	31
NBL	A	0.47	67	B	0.69	61
NBTR	A	0.60	12	A	0.46	27
SBL	A	0.29	60	B	0.68	68
SBT	A	0.34	21	A	0.58	28
SBR	A	0.01	0	A	0.03	0
Dealership Drive and Philsar Street						
EBTL	A	0.02	0	A	0.06	0
WBTR	A	0.01	1	A	0.00	0
NBLR	A	0.02	9	A	0.03	9
Note: NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, L = Left-turn, T = Through, R = Right-turn						

The intersection of Strandherd Drive and Dealership Drive/kennevale Drive is expected to operate well with all movements operating at an LOS of D and a v/c of 0.81 or less during both the AM and PM peak hour with the exception of the northbound through lane during the AM peak hour which operates at an LOS of E with a v/c of 1.00 due to the large number of vehicles going towards Hwy 416 during the morning peak hour towards the downtown core. This shows that the roadway is approaching capacity.

The intersection of Strandherd Drive and Maravasta Drive is expected to operate well with all movements operating at an LOS of B or better with a v/c of 0.69 or less.

The intersection of Dealership Drive and Philsar Street is expected to operate well with all movements operating at an LOS of A and a delay of 9 seconds or less.

All movements are anticipated to improve with the planned expansion of Strandherd drive from two-lanes to four-lanes reducing the capacity of the northbound and southbound movements at each intersection.

Synchro 11 reports can be found in Appendix D.

4.0 PLANNED CONDITIONS

4.1 Roadway Network Modifications

According to the City of Ottawa Transportation Master Plan, currently Strandherd drive is in the process of being widened from a two-lane roadway to a four-lane roadway. As such all future conditions scenarios shall be modelled with Strandherd Drive acting as a four-lane roadway from Fallowfield Road to Maravasta Drive (Phase 1 2014-2019) and Maravasta to Jockvale Road (Phase 2 2020-2025).

4.2 Other Study Area Developments

Within 1 km to the south of the proposed development there are currently 5 different development applications. All 5 applications are for a planned subdivisions located throughout 3288, 3300 Borrisokane Road, 4205, 4345, and 4375 McKenna Casey Drive. This subdivision is planned to add 313 Am and 348 PM new peak hour two-way trips to the network to be completed and full build out by the year 2030. As well as an existing dealership located on the proposed site.

Figure 4.1 illustrates the location of the other area development relative to the proposed site.

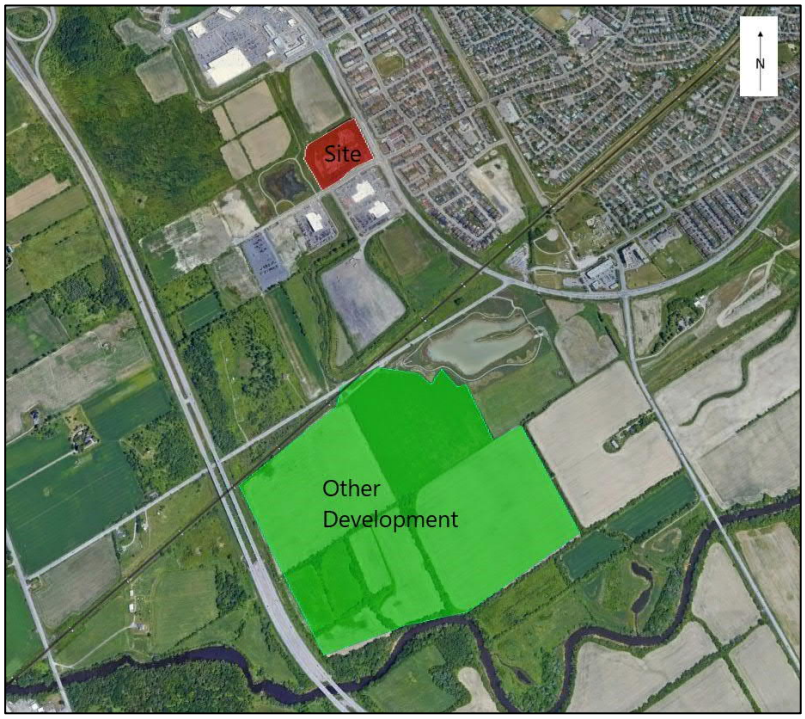

Figure 4.1 Other Study Area Developments

5.0 STUDY AREA AND TIME PERIODS

5.1 Study Area

The proposed study area is limited to the following intersection:

- Strandherd Drive at Dealership Drive/Kennevale Drive; and,
- Strandherd Drive at Maravasta Drive.

5.2 Time Periods

The proposed time periods for the analysis are:

- AM Peak (8:00-9:00) hour of adjacent roadways, and;
- PM Peak (16:00-17:00) hour of adjacent roadways.

5.3 Horizon Years

The proposed horizon years for analysis are:

- Existing Conditions (2022);
- Total Future Traffic phase 1 (2022) Conditions; No background condition for 2022 as the existing 2022 conditions will server as the background as phase 1 is anticipated to be completed during 2022.

- Background Future phase 2 (2023) and Total Future phase 2(2023) conditions and,
- Horizon Background (2028) and Total Horizon Traffic (2028) Conditions.

6.0 EXEMPTION REVIEW

Table 6.1 summarizes the exemptions review in accordance with the City of Ottawa TIA Guidelines.

Table 6.1 Exemptions Review

Module	Element	Exempted	Reasoning
Design Review Component			
4.1 Development Design	4.1.2 Circulation and Access	No	Not exempted due to being a Site Plan
	4.1.3 New Street Networks	Yes	The development is not a subdivision
4.2 Parking	4.2.1 Parking Supply	No	Not exempted due to being a Site Plan
	4.2.2 Spillover Parking	Yes	The development has more parking spots than needed with 368 spaces provided
Network Impact Component			
4.5 Transportation Demand Management	All elements	No	The development is expected to have more than 60 employees
4.6 Neighbourhood Traffic Management	4.6.1 Adjacent Neighbours	Yes	The development uses a collector roadway as a boundary street
4.8 Network Concept		Yes	It is assumed that the Dealership will not generate more than 200 new person trips during peak hour

7.0 DEVELOPMENT GENERATED TRAVEL DEMAND

7.1 Trip Generation

As the site currently has one other dealership on the premise, all trips generated by the proposed two new dealerships will have an impact on the existing traffic network. The proposed developments are anticipated to have a GFA of 2,011 m^2 (Myers Nissan) and 3,430m^2 (Myers Subaru). The proposed development will be

completed in two phases with the Subaru dealership being constructed in phase one (2022) and the Nissan dealership being constructed in phase two (2023). Table 7.1 shows the ITE Trip Generation for the two phases of the proposed development.

Table 7.1 ITE Trip Generation

Land Use	ITE LUC	FA Sq Ft. (m	Rate		Trips Generated		Trip Distribution			
							am		pm	
			am	pm	am	pm	In	Out	In	Out
Phase 1										
Dealership	840 Automotive Sales New	36,950 (3,430)	1.87	2.43	69	90	50	19	36	54
Total Person Trips (x1.28)					88	115	64	24	46	69
Phase 2										
Dealership	840 Automotive Sales New	36,950 (3,430)	1.87	2.43	69	90	50	19	36	54
Dealership	840 Automotive Sales New	21,646 (2,011)	1.87	2.43	40	53	29	11	21	32
Total Person Trips (x1.28)					139	183	101	38	73	110

As ITE trip generation results is in new vehicles trips, these values must be multiplied by a factor of 1.28 from the City of Ottawa Transportation Impact Assessment Guidelines (2017), in order to represent development generated new Person Trips. As such the proposed development is anticipated to generate 88 person trips during the am peak hour with 64 entering the site and 24 leaving the site during the am peak hour and 115 person trips during the pm peak hour with 46 entering the site and 54 leaving the site for phase one. Phase two is anticipate to generate 139 person trips during the am peak hour with 101 entering the site and 38 exiting the site where as the pm peak hour is anticipated to generate 183 person trips with 73 entering the site and 110 exiting the site.

7.2 Mode Share

As stated previously in this report, the expected build out year is 2022 for phase 1 and 2023 for phase 2. Additionally, the proposed development and surrounding study area is serviced by public transit, has adequate pedestrian and cycling facilities, and a number of multi-use pathways. The City of Ottawa Long Range Financial Plan (2011) estimates a transit ridership increase of 3.8% from 2016 to 2020 and 2.0% increase from 2021-2025. The City of Ottawa Transportation Master Plan has also identified mode share targets for the year 2031 city wide. Table 7.2 shows the mode share targets expected for traffic within the study area.

Table 7.2 Future 2031 Mode Share Targets

Travel Mode	Mode Share Target	Rationale
Auto Drive	50%	Currently average of 71% of person trips. This is expected to decrease in the future as more transit and cycling options become available.
Auto Passenger	9%	% of auto passenger person trips will not change in proportion to Auto Drivers.
Transit	26%	Transit person trips are expected to increase over time, as predicted by City of Ottawa Long Range Financial Plan.
Bicycle	5%	% of cycling is expected to increase as cycling networks become more accessible and increase
Walk	10%	% of walking person trips is expected to increase.

However as these are for the 2031 horizon year, and the use of the development is for a dealership it is anticipated that trips will be mainly made up of people bringing in their vehicles for maintenance/shuttle services for these people, using their vehicles to come and look at new vehicles for purchase etc. that all new trips will be made up of entirely of new Auto Driver trips to remain conservative.

7.3 Trip Distribution

Trip distribution was based on existing traffic patterns from acquired TMC data. Table 7.3 illustrates the splits.

Table 7.3 Directional Distribution

Direction	AM	PM
Northbound	57%	39%
Southbound	30%	47%
Westbound	11%	4%
Eastbound	2%	9%
Total	100%	100%

7.4 Trip Assignment

Figure 7.1 and Figure 7.2 illustrates the AM and PM trip assignment for the proposed development generated auto driver trips for both phase one and phase two respectively.

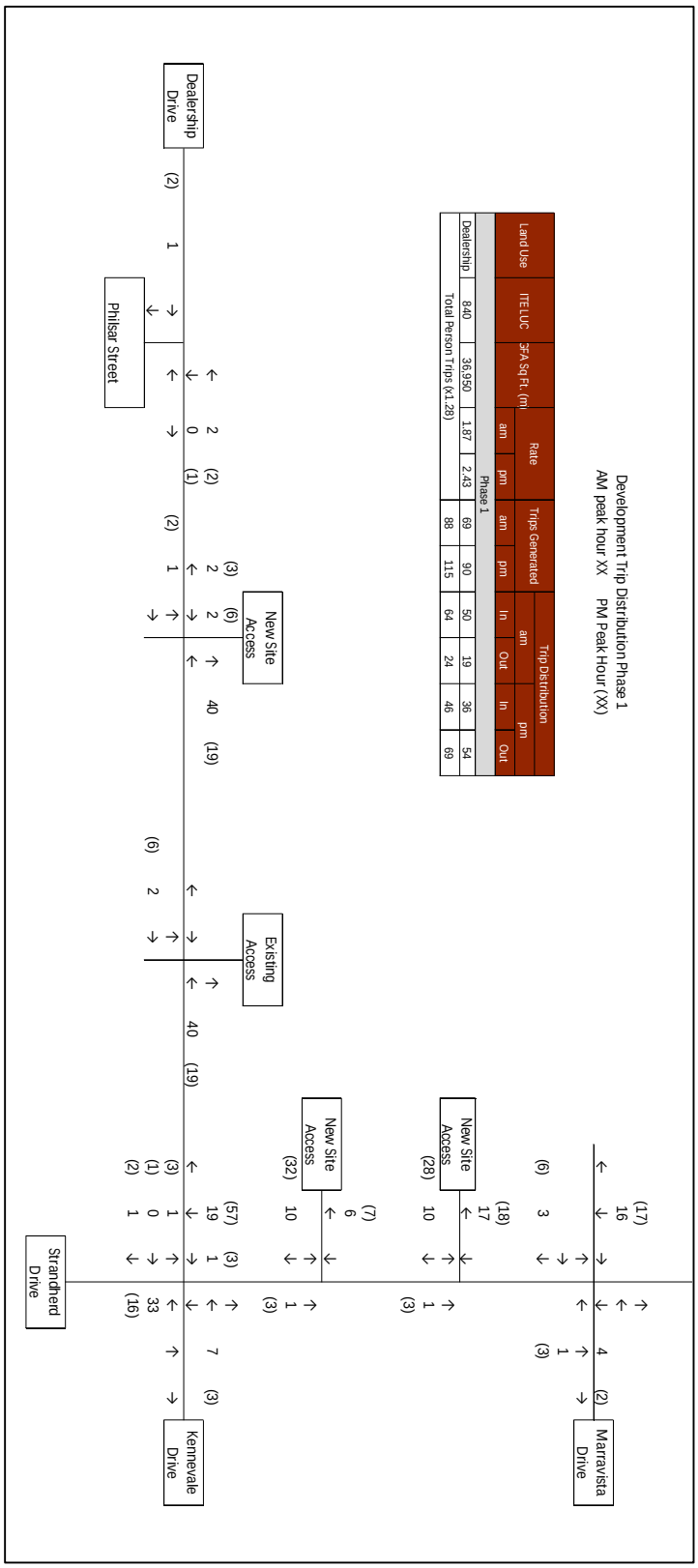

Figure 7.1 Phase One Development Generated traffic

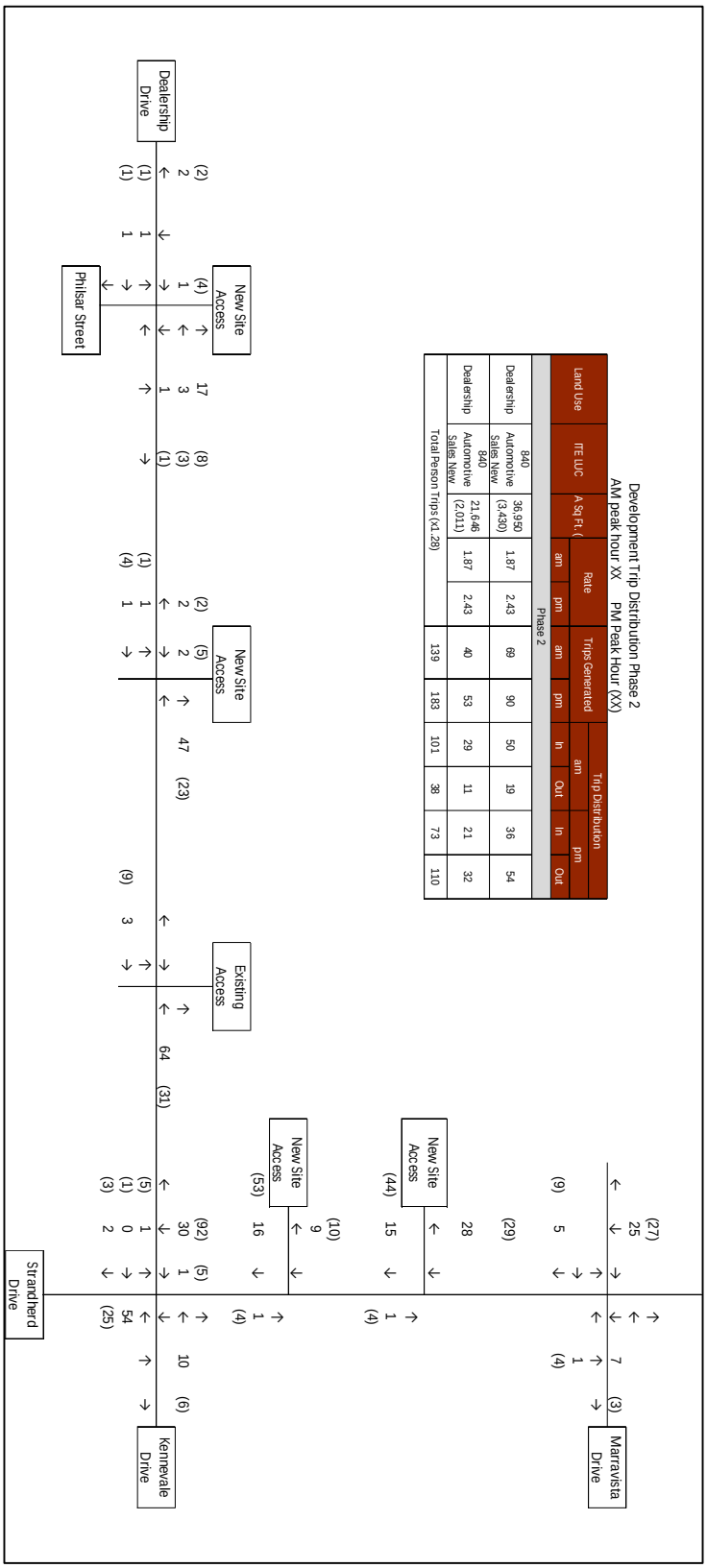

Figure 7.2 Phase Two Development Generated traffic

8.0 BACKGROUND TRAVEL DEMAND

As previously stated in Section 3.9, MP received turning movements counts from the city taken at:

- Strandherd Drive at Dealership Drive / Kennevale Drive (01-18-2018 and 01-20-2018); and,
- Strandherd Drive at Maravasta Drive (01-18-2018 and 01-20-2018).

In addition, MP performed traffic movement counts at the intersection of Dealership Drive and Philsar Street (05-04-2022).

The traffic volumes were projected to 2022, applied to the network and balanced accordingly.

8.1 Transportation Network Plans

As mentioned in section 4.1, the City of Ottawa Transportation master Plan indicates that Strandherd Drive is, currently, in the process of being widened from a two-lane roadway to a four-lane roadway. As such all future conditions scenarios shall be modelled with Strandherd Drive acting as a four-lane roadway from Fallowfield Road to Maravasta Drive (Phase 1 2014-2019) and Maravasta Drive to Jockvale Road (Phase 2 2020-2025). This is anticipated to relieve the capacity issues presented in section 3.10.

8.2 Background Growth

To project the traffic volume to the current and future years, a growth rate of 1.5% was used as stated in Section 3.9. The growth rate is considered appropriate as it is to include both the population and employment growth within the City of Ottawa.

8.3 Other Developments

As discussed in section 4.1 earlier there is a planned subdivisions located throughout 3288, 3300 Borrisokane Road, 4205, 4345, and 4375 McKenna Casey Drive. This subdivision is planned to add 313 AM and 348 PM new peak hour two-way trips to the network to be completed and full build out by the year 2030. However, as this development buildout and occupancy is not expected until the year 2030 it is outside of the study time period. As such it will not be included in the background traffic for this study. MP does acknowledge that this will add a fair number of trips to the network in the future and should be monitored when the time comes. As well as an existing dealership located on the proposed site to be completed in 2022. As such Figure 8.1 illustrated the trips added to the network.

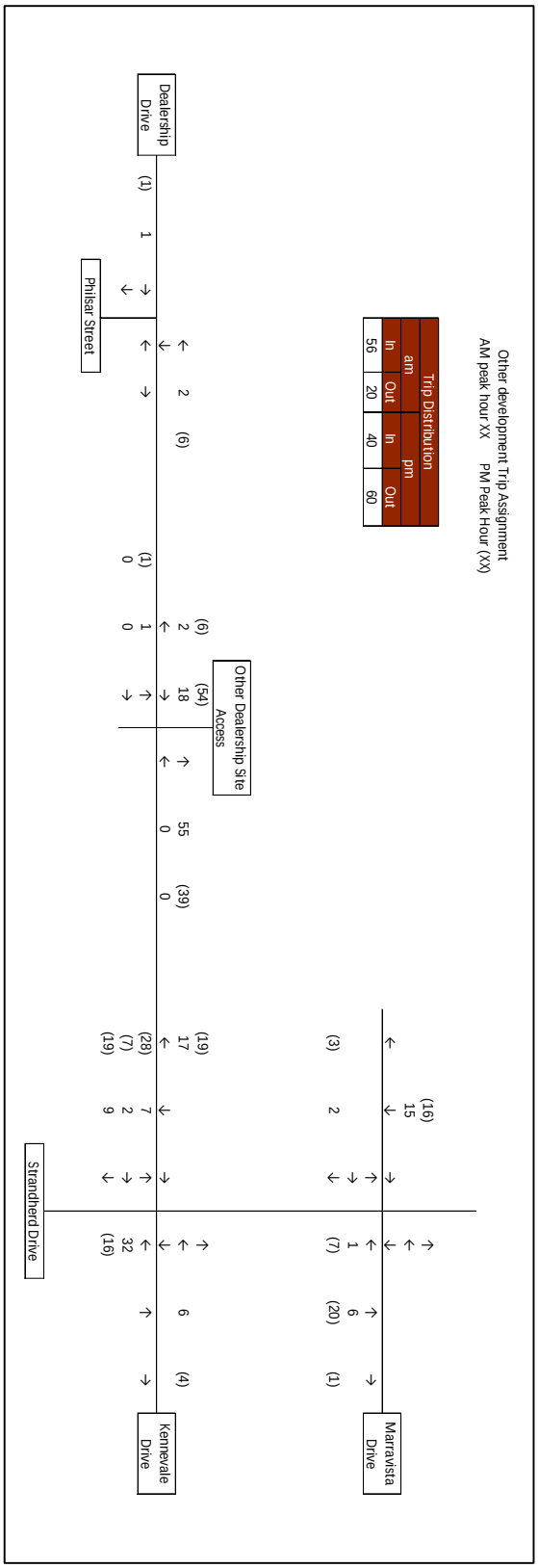

Figure 8.1 Other Development Generated traffic

9.0 DEMAND RATIONALIZATION

With the improvements to the road network (Strandherd Drive Roadway Widening) from two (2) to four (4) lanes, this is expected to improve operation conditions of the transportation network within the vicinity of the proposed development, therefore increasing network capacity and in turn improving operating conditions during the future scenarios as this is expected to be completed by 2023 within the vicinity of the proposed development.

10.0 DEVELOPMENT DESIGN

This section will review the proposed development and its transportation network elements in order to ensure that a safe and efficient design has been proposed, to encourage walking, cycling, and transit use. The City of Ottawa's TDM-supportive Development Design and Infrastructure checklist has been completed and attached in Appendix E for reference. The TDM-supportive Development Design and Infrastructure checklist outlines the TDM elements to be included in the proposed development.

10.1 Design Suitable Modes

The proposed site plan is anticipated to include a total of 571 parking spaces with 183 (3 barrier free) from the existing dealership on site, 203 (3 barrier free) for phase 1 Subaru dealership and 185 (2 barrier free) for phase 2 Nissan Dealership. As described in Section 3.5, the closest transit stops to the proposed development are located along Kennevale Drive.

10.2 Circulation Access

The proposed development is anticipated to include 2 entrances fronting on Strandherd Drive to the north of the intersection of Strandherd Drive and Dealership Drive/Kennevale Drive. Both accesses work as right-in-right-out. The proposed development will also have two full movements accesses fronting onto Dealership Drive with the western most access becoming the fourth leg (southbound) of the Dealership Drive and Philsar Street. All intersections are to be unsignalized with the accesses being under yield control.

11.0 PARKING

The site plan shows that included on the site will be a total of 571 parking spaces with 183 (3 barrier free) from the existing dealership on site, 203 (3 barrier free) for phase 1 Subaru dealership and 185 (2 barrier free) for phase 2 Nissan Dealership. The City of Ottawa Zoning By-Law 2008-250, Section 101, Schedule 1A lists the proposed development as being in Area C (Suburban). Table 101 within the City of Ottawa By-law gives the minimum parking rates for varying land uses. The proposed development is located further than 600m from rapid transit and given there is no limit on the number of parking spaces imposed on the development. Table 11.1 illustrates the City of Ottawa By-Law minimum number of parking spaces for the proposed development.

Table 11.1 City of Ottawa By-Law Parking Requirements

Land Use	Minimum Parking Spaces Rate	Gross Floor Area (m^2)	Minimum Number of Spaces Required
Automobile Dealership (Subaru)	Sales/showroom area, 2 per 100 m2 of gross floor area; Service area, 2 per service bay; Other areas, 1 per 100 m2 of gross floor area.	3,430	59
Automobile Dealership (Nissan)		2,011	30

The proposed development is anticipated to include more then the require number of parking spaces of 59 and 30 for a total of 89 parking spaces for the two new dealerships.

The proposed development is anticipated to provide 7 total bicycle parking spaces which meets the minimum bicycle parking space requirement as per the City of Ottawa's zoning by-law.

12.0 BOUNDARY STREET

This section will examine the design elements of the noted boundary street and their ability to accommodate the proposed development as well as being consistent with the City of Ottawa's Complete Street design philosophy as well as its urban design objectives.

12.1 Segment Mobility

12.1.1 Pedestrian Level of Service (PLOS)

The pedestrian level of service (PLOS) is used to evaluate pedestrian comfort, safety and convenience on the boundary street segment. PLOS was assessed for Strandherd Drive and Dealership Drive, which will provide direct pedestrian access to the proposed development. Table 12.1 illustrates the PLOS of Strandherd Drive and Dealership Drive.

Table 12.1 PLOS

Side of Roadway	Sidewalk Width (m)	Boulevard Width (m)	Motor Vehicle Traffic Volume	Presence of On-Street Parking	Operating Speed	LOS
Strandherd Drive						
East	2	N/A	>3000	N/A	90	F
West	2	N/A	>3000	N/A	90	F
Dealership Drive						
North	2	N/A	<3000	N/A	60	C
South	2	N/A	<3000	N/A	60	C

Based on Exhibit 22 – Minimum Desirable MMLOS Targets by Official Plan Policy/Designation & Road classification Strandherd Drive and Dealership Drive both have a target of C based on the site being located in an urban employment area. As such only Dealership Drive meet the target.

12.1.2 Bicycle Level of Service (BLOS)

Bicycle level of service (BLOS) is used to evaluate the level of stress experienced by cyclists using the roadway corridor. The BLOS for Strandherd Drive and Dealership Drive is lustrated in Table 12.2.

Table 12.2 BLOS

Bike Lane Facility	Number of Travel Lanes	Operating Speed (km/h)	BLOS
Strandherd Drive			
Mixed Traffic	4	90	F
Dealership Drive			
Mixed Traffic	2	60	F

Based on Exhibit 22 – Minimum Desirable MMLOS Targets by Official Plan Policy/Designation & Road classification Strandherd Drive being part of the spine route has a target of C and Dealership Drive has a target of D based on the site being located in an urban employment area. As such the target has not been met for either street.

12.1.3 Transit Level of Service (TLOS)

Transit level of service (TLOS) is to evaluate the relative attractiveness of transit based on travel time and transit priority. The TLOS of Strandherd Drive and Dealership Drive was reviewed and is illustrated in Table 12.3.

Table 12.3 TLOS

Transit Facility	Level of exposure	BLOS
Strandherd Drive		
Mixed Traffic	Low	D

Based on Exhibit 22 – Minimum Desirable MMLOS Targets by Official Plan Policy/Designation & Road classification Strandherd Drive has a target of D. As such the target has been met for Strandherd Drive. As Dealership Drive currently does not see any transit traffic along the corridor it is not considered for TLOS.

12.1.4 Truck Level of Service (tkLOS)

Truck level of service (tkLOS) is to evaluate the level of ease of trucks to operate within a corridor. The tkLOS was reviewed for Strandherd Drive and Dealership Drive and is illustrated in Table 12.4.

Table 12.4 tkLOS

Side of Roadway	Curb Lane Width	Number of Travel Lanes	tkLOS
Strandherd Drive			
East	3.75	2	A
West	3.75	2	A
Dealership Drive			
North	3.25	2	D
South	3.5	1	F

Based on Exhibit 22 – Minimum Desirable MMLOS Targets by Official Plan Policy/Designation & Road classification Strandherd Drive as a truck route is B and Dealership Drive has a target of D as dealership drive is not a truck route based on the site being located in an urban employment area. As such the target has been met for all directions on both streets with the exception of the south side of the street (eastbound) for Dealership Drive.

12.2 Road Safety

Available collision data within the study area was reviewed and is presented in Section 3.7. No road safety concerns were identified on boundary streets or within the study area. As City of Ottawa collision records do not indicate the direction of travel for vehicles involved, collision diagrams are not feasible.

13.0 ACCESS INTERSECTION DESIGN

This section will examine design elements of the proposed developments access points and assess their alignment with the City of Ottawa's Complete Street philosophy, MMLOS Guidelines and urban design objectives.

13.1 Location and Design of Access

The proposed development is anticipated to include two entrances fronting on Strandherd Drive to the north of the intersection of Strandherd Drive and Dealership Drive/Kennevale Drive. Both accesses are expected to operate as right-in-right-out. The proposed development will also have two full movements accesses fronting onto Dealership Drive with the west most access becoming the fourth leg (southbound) of the Dealership Drive and Philsar Street. All intersections are to be unsignalized with the accesses being under yield control.

The southern Site access off of Strandherd Drive has a shared access to both the Subaru and the VW dealership. To avoid conflict in between the entrances of the two dealership internal accesses, stop signs will be provided at each approach. As shown in Figure 13.1.

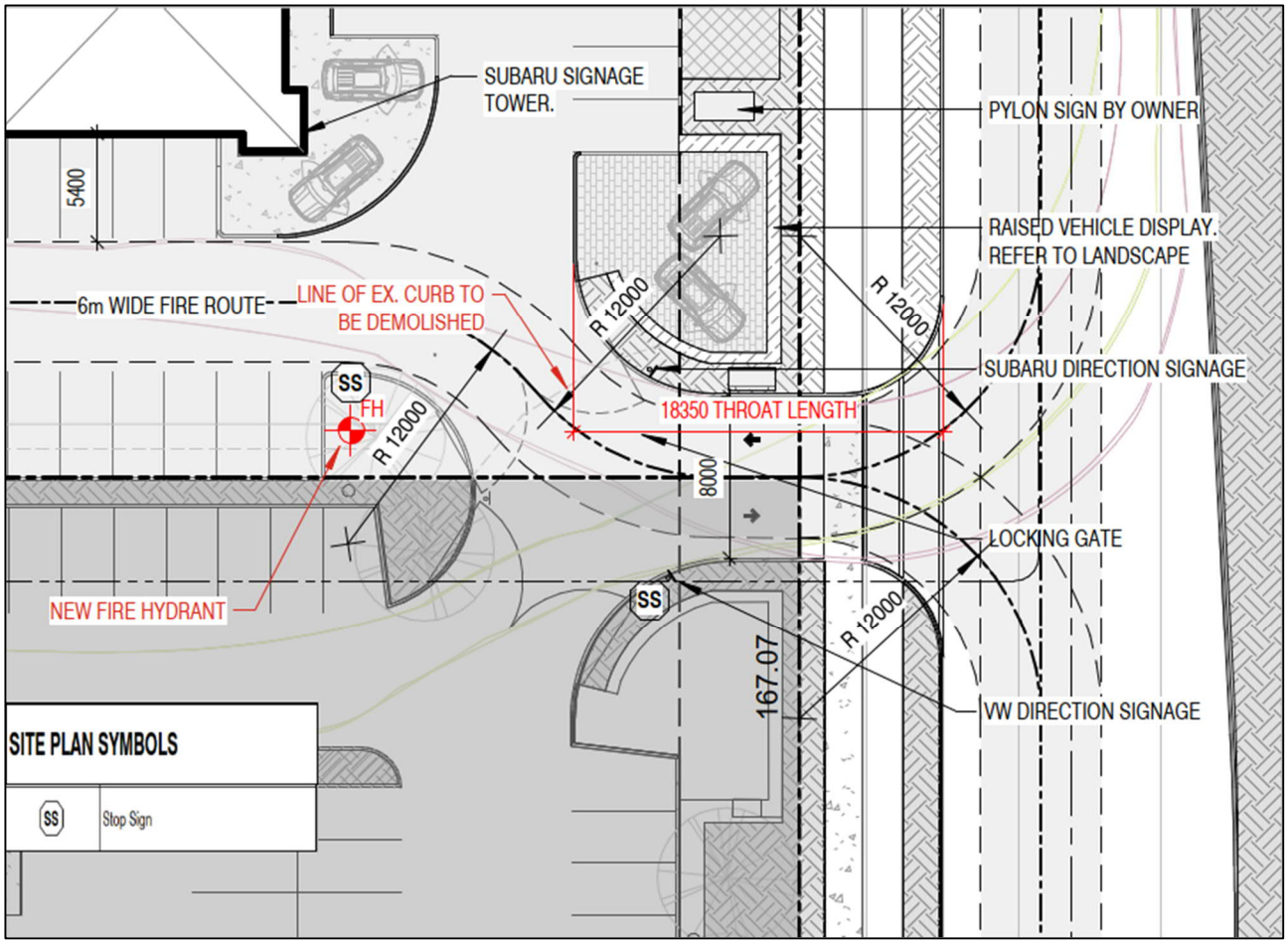

Figure 13.1 Internal Access Control for Southern Standheard Drive Access

13.1.1 Access Sightlines

The TAC Geometric Design Guide for Canadian Roads, June 2017, was used to determine the required sight distances. Section 9.9.4 Design Intersection Sight Distances – Case B1, Left Turn From Stop, and Table 9.9.6 Design Intersection Sight Distances – Case B2, Right Turn from stop, were used in the review of the sight lines for the access of the proposed development.

Table 13.1 illustrates the minimum required length of sight triangle leg. Strandherd Drive has a design speed of 90 km/h, as such 90 km/h will be the design speed analysed for the right-turn from stop at the two Strandherd Drive accesses. As Dealership Drive has a design speed of 60 km/h, a 60 km/h design speed will be used for the left and right turns at both accesses onto Dealership Drive.

Table 13.1 Length of Sight Triangle- Case B, Stop Control on the Minor Road

Design Speed (Km/h)	Left Turn Required Sight Distance (m)	Right Turn Required Sight Distance (m)
90	N/a	165
60	130	110

Table 13.2 summarizes the available sight distance for each manoeuvre.

Table 13.2 Available Sight Distances

Available Sight Distances	Strandherd Drive		Dealership Drive	
	Northern Access (m)	Southern Access (m)	Eastern Access (m)	Western Access (m)
Right Turn	330	410	150	200
Left Turn	N/a	N/a	400	350

Based on Table 13.1, all manoeuvres are expected to meet the required site distance with the exception of the right turn of the eastern most access of Strandherd Drive as the intersection of Strandherd Drive and Dealership Drive/Kennevale Drive is 150 m to the east of the site access when 165 m is required. However, as vehicles will be traveling slow due to a turning movement being performed onto Dealership Drive from Strandherd Drive, the vehicles will be travelling at a lower operating speed than the 60 km/h used in the analysis. As well as there are no obstructions blocking the view further east past the intersection meeting the required 165 m for the right turn out of the eastern most access on Dealership Drive.

13.2 Access Intersection Control

In consideration of existing and projected volumes of traffic anticipated to utilize the site access, a yield control at accesses fronting onto Strandherd Drive is recommended, while the two accesses fronting onto Dealership Drive are recommending operating as stop controlled as the western most will become the fourth leg of the existing intersection of Dealership Drive and Philsar Street as well as the high density of accesses along Dealership Drive in both directions.

13.3 Access Intersection Design

No concerns are anticipated due to the existing sightlines of the proposed site access and expected low speed of vehicles traveling through the intersection of the proposed site access. As the proposed site access will not be signalized, the MMLOS guidelines do not apply for this intersection.

14.0 TRANSPORTATION DEMAND MANAGEMENT

As both of the dealerships combined are anticipated to include more then 60 employees TDM measures were reviewed for the site. As described in section 3.4, there are multiple sidewalks in the vicinity of the proposed

development that lead to the site. As such, based on TDM supportive Design and Infrastructure measure, the majority of required and basic measures have been met as shown in Appendix E.

However, based on the location of the site and the land use (automotive dealership) it is anticipated that the majority of employees will commute by personal vehicle. If they do not, there are two bus routes that service the site as well as a well-connected network of sidewalks that lead to each building from the roadways.

15.0 NEIGHBOURHOOD TRAFFIC MANAGEMENT

This module reviews the significant access routes to the development and identifies any required neighbourhood traffic management (NTM) measures to mitigate impacts on collector and local roads.

15.1 Adjacent Neighbourhoods

The proposed development includes three accesses onto Dealership Drive, an urban collector roadway. However, as Dealership Drive is the main roadway into Barrhaven's Automotive Park it is anticipated that the roadway was designed to support the traffic of multiple dealerships as this is the only approved usage of the land fronting onto Dealership Drive. As such, the development is not anticipated to cause any major operational impacts on Dealership Drive.

16.0 TRANSIT

This section will review the potential impacts of the proposed development on existing and planned transit networks and services in order to ensure TLOS is not negatively impacted.

16.1 Route Capacity

Due to the nature of the development, it is anticipated that very few new transit trips will be generated by the development. The relatively low number of development-generated trips are expected to be adequately accommodated by the existing transit routes and is not expected to result in any requirement for additional transit capacity. Further, it is not anticipated that the existing transit routes will require modification as a result of the proposed development.

16.2 Transit Capacity

As noted in Section 3.5, there are two routes in the area which travelers may use to travel to and from the development. It is anticipated that the relatively low number of development-generated transit trips can be accommodated, and it is not anticipated that any additional transit trips will result in impacts to travel times.

17.0 REVIEW OF NETWORK CONCEPT

The proposed development is not anticipated to generate more then 200 peak hour person auto-driver trips, this section has been omitted from this TIA Report.

18.0 INTERSECTION DESIGN

18.1 Intersection Control

This section will determine the design elements of the study area intersections required to accommodate the proposed development, ensuring they are consistent with the City of Ottawa Complete Street philosophy and MMLOS practices.

18.2 Intersection Design

All study intersections within the study area of the proposed development are signalized with the exception of the intersection of Dealership Drive and Philsar Street. No signal warrants were completed as a result of the low volumes of vehicles at the stop-controlled intersection.

18.2.1 Intersection Vehicular Level of Service (LOS)

Level of Service (LOS) is a qualitative measure of the operating conditions, based on lane configuration, signal operation/phasing. LOS criteria for signalized and unsignalized intersection based on the Multi Modal Level Of Service (MMLOS) Guidelines, are illustrated in Table 18.1.

Table 18.1 Definition of LOS for Intersections

Level of Service	v/c Ratio
A	0 to 0.60
B	0.61 to 0.70
C	0.71 to 0.80
D	0.81 to 0.90
E	0.91 to 1.00
F	> 1.00

Signal timings were optimized for future conditions with all Synchro 11 parameter taken in Accordance with Appendix C: Synchro Analysis Parameters of the City of Ottawa TIA Guidelines (2017) Additionally, all pedestrian clearance timings as well as amber and all red times that were provided by the City of Ottawa were used in the analysis of future operating conditions.

MP reviewed the existing 2022 conditions which can be found in Section 3.3, the future 2022 phase 1 buildout year, 2023 phase 2 buildout year: background and total traffic, and the 2028 Background and total traffic

operating conditions at all study area intersections. For all scenario the Strandherd Drive Widening will be used as the road network. Synchro 11 reports for all analysis periods can be found in Appendix D. table 18.2 summarizes the 2023 Background Traffic V/C and LOS according to the City of Ottawa TIA methodologies.

Table 18.2 2023 Background Traffic Conditions

Movement	AM Peak Hour			PM Peak Hour		
	LOS	V/C	Delay	LOS	V/C	Delay
Strandherd Drive and Dealership Drive/Kennevale Drive						
EBL	A	0.33	58	C	0.71	87
EBT	A	0.06	47	A	0.15	55
EBR	A	0.14	1	A	0.19	2
WBL	B	0.69	74	C	0.77	86
WBTR	A	0.47	16	A	0.37	17
NBL	A	0.41	62	A	0.28	75
NBTR	A	0.57	15	A	0.46	15
SBL	A	0.48	70	B	0.64	89
SBT	A	0.28	11	A	0.49	13
SBR	A	0.09	2	A	0.04	1
Strandherd Drive and Marravista Drive						
EBL	A	0.33	57	A	0.42	61
EBTR	A	0.21	14	C	0.72	30
WBL	A	0.16	57	A	0.16	58
WBTR	A	0.55	18	A	0.39	30
NBL	A	0.48	59	B	0.70	60
NBTR	B	0.62	24	A	0.49	28
SBL	A	0.29	60	B	0.67	66
SBT	A	0.35	22	B	0.65	31
SBR	A	0.01	0	A	0.03	0
Dealership Drive and Existing Site Access						
EBTL	A	0.00	0	A	0.00	0
WBTR	A	0.09	0	A	0.06	0
SBLR	A	0.03	9	A	0.08	10
Dealership Drive and Philsar Street						
EBTL	A	0.02	0	A	0.06	0
WBTR	A	0.01	1	A	0.01	1
NBLR	A	0.02	9	A	0.03	9
Note: NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, L = Left-turn, T = Through, R = Right-turn						

During the 2023 background conditions all movements at all intersections are anticipated to operate well with a max LOS of C and a v/c of 0.77 or less and a max delay of 89 s. These improvements from the existing conditions is due to the roadway improvements along Strandherd Drive that are anticipated to be completed by 2023.

table 18.3 summarizes the 2028 Background Traffic V/C and LOS

Table 18.3 2028 Background Traffic Conditions

Movement	AM Peak Hour			PM Peak Hour		
	LOS	V/C	Delay	LOS	V/C	Delay
Strandherd Drive and Dealership Drive/Kennevale Drive						
EBL	A	0.34	57	C	0.73	87
EBT	A	0.07	45	A	0.15	53
EBR	A	0.14	2	A	0.22	12
WBL	B	0.70	72	C	0.80	87
WBTR	A	0.52	25	A	0.36	15
NBL	A	0.37	59	A	0.30	74
NBTR	B	0.67	19	A	0.51	16
SBL	A	0.38	61	B	0.62	83
SBT	A	0.31	12	A	0.53	14
SBR	A	0.10	2	A	0.05	1
Strandherd Drive and Marravista Drive						
EBL	A	0.35	57	A	0.50	64
EBTR	A	0.22	13	C	0.71	30
WBL	A	0.17	57	A	0.17	58
WBTR	A	0.57	18	A	0.41	31
NBL	A	0.50	59	B	0.69	59
NBTR	B	0.67	25	A	0.59	32
SBL	A	0.31	60	B	0.66	63
SBT	A	0.39	23	C	0.77	37
SBR	A	0.01	0	A	0.04	0
Dealership Drive and Existing Site Access						
EBTL	A	0.00	0	A	0.00	0
WBTR	A	0.09	0	A	0.06	0
SBLR	A	0.03	10	A	0.08	10
Dealership Drive and Philsar Street						
EBTL	A	0.03	0	A	0.06	0
WBTR	A	0.01	1	A	0.01	1
NBLR	A	0.02	9	A	0.04	9
Note: NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, L = Left-turn, T = Through, R = Right-turn						

During the 2028 background conditions all movements at all intersections are anticipated to operate well with a LOS of C and a v/c of 0.80 or less and a max delay of 87 s.

table 18.4 summarizes the 2022 Total Traffic V/C and LOS

Table 18.4 2022 Total Traffic Conditions

Movement	AM Peak Hour			PM Peak Hour		
	LOS	V/C	Delay	LOS	V/C	Delay
Strandherd Drive and Dealership Drive/Kennevale Drive						
EBL	A	0.28	59	A	0.50	73
EBT	A	0.05	49	A	0.11	55
EBR	A	0.10	1	A	0.13	1
WBL	B	0.69	77	C	0.77	88
WBTR	A	0.51	18	A	0.37	17
NBL	A	0.44	65	A	0.28	77
NBTR	A	0.55	14	A	0.45	15
SBL	A	0.48	72	B	0.64	90
SBT	A	0.28	11	A	0.50	13
SBR	A	0.07	2	A	0.02	0
Strandherd Drive and Marravista Drive						
EBL	A	0.33	57	A	0.41	61
EBTR	A	0.21	14	C	0.72	30
WBL	A	0.20	58	A	0.18	58
WBTR	A	0.55	18	A	0.39	30
NBL	A	0.47	59	B	0.69	61
NBTR	B	0.61	23	A	0.47	28
SBL	A	0.29	60	B	0.68	67
SBT	A	0.35	22	B	0.64	31
SBR	A	0.01	0	A	0.03	0
Dealership Drive and Existing Site Access						
EBTL	A	0.00	0	A	0.00	0
WBTR	A	0.11	0	A	0.07	0
SBLR	A	0.03	10	A	0.08	10
Dealership Drive and Philsar Street						
EBTL	A	0.00	0	A	0.00	0
WBTR	A	0.01	1	A	0.01	2
NBLR	A	0.02	9	A	0.03	9
Dealership Drive and Eastern Access						
EBTL	A	0.00	0	A	0.01	1
WBTR	A	0.08	0	A	0.05	0
SBLR	A	0.00	9	A	0.01	9
Strandherd Drive and Northern Access						
EBR	A	0.01	9	A	0.04	10
SBTR	A	0.26	0	A	0.48	0
Strandherd Drive and Southern Access						
EBR	A	0.03	9	A	0.04	10
SBTR	A	0.26	0	A	0.49	0
Note: NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, L = Left-turn, T = Through, R = Right-turn						

During the 2022 total conditions all movements at all intersections are anticipated to operate well with a max LOS of C and a v/c of 0.77 or less and a max delay of 90 s. The improvements within the network shown in table 18.4 are due to the roadway improvements along Strandherd Drive that are to be completed at the end of 2022 when phase 1 buildout is anticipated to also be completed. As such it is shown that the development after phase 1 buildout will have little impact on the existing road network.

table 18.5 summarizes the 2023 Total Traffic V/C and LOS

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Table 18.5 2023 Total Traffic Conditions

Movement	AM Peak Hour			PM Peak Hour		
	LOS	V/C	Delay	LOS	V/C	Delay
Strandherd Drive and Dealership Drive/Kennevale Drive						
EBL	A	0.40	66	C	0.79	102
EBT	A	0.07	49	A	0.16	57
EBR	A	0.15	2	A	0.20	2
WBL	B	0.70	77	C	0.78	89
WBTR	A	0.54	21	A	0.39	19
NBL	A	0.54	65	A	0.40	78
NBTR	B	0.66	17	A	0.46	16
SBL	A	0.49	72	B	0.65	89
SBT	A	0.30	12	A	0.55	15
SBR	A	0.09	3	A	0.04	1
Strandherd Drive and Marravista Drive						
EBL	A	0.33	57	A	0.42	61
EBTR	A	0.26	14	C	0.73	30
WBL	A	0.23	58	A	0.19	59
WBTR	A	0.55	18	A	0.39	30
NBL	A	0.48	59	B	0.70	60
NBTR	B	0.62	24	A	0.51	29
SBL	A	0.29	60	B	0.67	66
SBT	A	0.38	22	B	0.69	33
SBR	A	0.01	0	A	0.03	0
Dealership Drive and Existing Site Access						
EBTL	A	0.00	0	A	0.00	0
WBTR	A	0.14	0	A	0.08	0
SBLR	A	0.03	10	A	0.09	10
Dealership Drive and Philsar Street/Western Access						
EBLTR	A	0.00	0	A	0.00	0
WBLTR	A	0.01	1	A	0.01	1
NBLTR	A	0.02	9	A	0.03	9
SBLTR	A	0.00	9	A	0.01	10
Dealership Drive and Eastern Access						
EBTL	A	0.00	0	A	0.00	1
WBTR	A	0.11	0	A	0.06	0
SBLR	A	0.00	9	A	0.01	9
Strandherd Drive and Northern Access						
EBR	A	0.02	9	A	0.06	10
SBTR	A	0.28	0	A	0.50	0
Strandherd Drive and Southern Access						
EBR	A	0.02	9	A	0.07	10
SBTR	A	0.28	0	A	0.52	0
Note: NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, L = Left-turn, T = Through, R = Right-turn						

During the 2023 total conditions all movements at all intersections are anticipated to operate well with a max LOS of C and a v/c of 0.79 or less and a max delay of 102 s. The largest increase in v/c is in the Eastbound left turn lane at the intersection of Strandherd Drive and Dealership Drive/Kennevale Drive as it increases by 0.08 from the background 2023 conditions and by 0.47 by the 2022 total conditions. This is due to the increase in the left turn volumes due to the existing dealership on the proposed site and the increase volume due to the newly generated trips for phase 1.

table 18.6 summarizes the 2028 Total Traffic V/C and LOS

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Table 18.6 2028 Total Traffic Conditions

Movement	AM Peak Hour			PM Peak Hour		
	LOS	V/C	Delay	LOS	V/C	Delay
Strandherd Drive and Dealership Drive/Kennevale Drive						
EBL	A	0.41	64	D	0.81	102
EBT	A	0.07	46	A	0.16	54
EBR	A	0.14	2	A	0.21	3
WBL	B	0.70	73	C	0.80	87
WBTR	A	0.59	28	A	0.40	18
NBL	A	0.45	59	A	0.43	78
NBTR	B	0.62	17	A	0.51	17
SBL	A	0.50	69	B	0.70	92
SBT	A	0.02	11	A	0.59	16
SBR	A	0.10	3	A	0.05	1
Strandherd Drive and Marravista Drive						
EBL	A	0.35	57	A	0.45	62
EBTR	A	0.27	14	C	0.73	31
WBL	A	0.23	59	A	0.21	59
WBTR	A	0.57	18	A	0.41	31
NBL	A	0.50	59	B	0.69	58
NBTR	B	0.67	25	B	0.61	33
SBL	A	0.31	60	B	0.66	63
SBT	A	0.41	23	D	0.81	38
SBR	A	0.01	0	A	0.04	0
Dealership Drive and Existing Site Access						
EBTL	A	0.00	0	A	0.00	0
WBTR	A	0.15	0	A	0.09	0
SBLR	A	0.03	10	A	0.09	10
Dealership Drive and Philsar Street/Western Access						
EBLTR	A	0.00	0	A	0.00	0
WBLTR	A	0.01	1	A	0.01	1
NBLTR	A	0.02	9	A	0.04	9
SBLTR	A	0.00	9	A	0.01	10
Dealership Drive and Eastern Access						
EBTL	A	0.00	0	A	0.00	1
WBTR	A	0.11	0	A	0.07	0
SBLR	A	0.00	9	A	0.01	10
Strandherd Drive and Northern Access						
EBR	A	0.02	9	A	0.06	10
SBTR	A	0.30	0	A	0.54	0
Strandherd Drive and Southern Access						
EBR	A	0.02	9	A	0.07	10
SBTR	A	0.30	0	A	0.56	0
Note: NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, L = Left-turn, T = Through, R = Right-turn						

During the 2028 total conditions all movements at all intersections are anticipated to operate well with a max v/c LOS of D and a v/c of 0.81 or less and a max delay of 102 s. All site accesses operate well with a LOS of A and very low v/c ratios.

When comparing the Existing Conditions to the 2028 Background Conditions to the 2028 Total Conditions it is shown that the proposed development will have minimal impacts onto the existing road network.

18.2.2 Intersection Pedestrian Level of Service (PLOS)

The PLSO for the study intersections were determined in accordance with The City of Ottawa's MMLOS Guidelines. The Pedestrian Exposure at Signalized Intersection (PETSI), average delay to pedestrians, and corresponding levels of service at the signalized intersections are summarized below in Table 18.7.

Table 18.7 Signalized Intersection Pedestrian Level of Service

Intersection / Approach (crossing)	PETSI Evaluation		Pedestrian Delay Evaluation		Critical PLOS
	Total	LOS	Delay	LOS	
Maravista Drive (EB/WB) at Starndherd Drive (NB/SB)					
Northbound (E-W)	26	F	38	D	F
Southbound (E-W)	26	F	38	D	F
Eastbound (N-S)	37	E	27	C	E
Westbound (N-S)	70	C	27	C	C
Dealership Drive/Kennevale Drive (EB/WB) at Strandherd Drive (NB/SB)					
Northbound (E-W)	26	F	44	E	F
Southbound (E-W)	26	F	44	E	F
Eastbound (N-S)	37	E	42	E	E
Westbound (N-S)	53	D	42	E	E

Based on Exhibit 22 – Minimum Desirable MMLOS Targets by Official Plan Policy/Designation & Road classification both intersections have a PLOS target of C based on the site being located in an urban employment area. As such neither intersection meets the target, with the exception of the westbound crossing at the intersection of Maravasta Drive and Strandherd Drive.

18.2.3 Intersection Bicycle Level of Service (BLOS)

The Bicycle Level of Service (BLOS) for the study intersection was determined in accordance with the City of Ottawa's MMLOS Guidelines. Table 18.8 illustrates the BLOS.

Table 18.8 Signalized Intersection Bicycle Level of Service

Intersection / Approach	Bike Lane Facility	Lanes crossed to turn left	Speed (km/h)	LOS
Maravista Drive (EB/WB) at Strendherd Drive (NB/SB)				
Northbound (E-W)	Seperated Bike Lane	dual left turn lane	90	F
Southbound (E-W)	Seperated Bike Lane	2	90	F
Eastbound (N-S)	Mixed Traffic	2	60	F
Westbound (N-S)	Mixed Traffic	1	60	F
Dealership Drive/Kennevale Drive (EB/WB) at Strandherd Drive (NB/SB)				
Northbound (E-W)	Seperated Bike Lane	dual left turn lane	90	F
Southbound (E-W)	Seperated Bike Lane	2	90	F
Eastbound (N-S)	Mixed Traffic	2	60	F
Westbound (N-S)	Mixed Traffic	1	60	F

Based on Exhibit 22 – Minimum Desirable MMLOS Targets by Official Plan Policy/Designation & Road classification Strandherd Drive being part of the spine route has a target of C where Dealership Drive/Kennevale Drive and Maravasta Drive has a target of D based on the site being located in an urban employment area. As such the target has not been met for any street.

18.2.4 Intersection Transit Level of Service (TLOS)

In order to evaluate Transit Level of Service at the study intersections, average delays at approaches were determined based on the intersectional analysis completed as part of this investigation. Detailed analysis reports are presented in Appendix D.

Upon review of Exhibit 16 of The City of Ottawa's MMLOS Guidelines, all signalized intersections operate at an TLOS of F, due to high cycle timings and delays.

18.2.5 Intersection Truck Level of Service (tkLOS)

The Truck Level of Service (tkLOS) for the study area intersections was determined in accordance with the City of Ottawa's MMLOS Guidelines. The effective Radii, number of receiving lanes and corresponding LOS at the signalized intersections are summarized in Table 18.9.

Table 18.9 Signalized Intersection Truck Level of Service

Intersection / Approach (crossing)	Effective Corner Radius (m)	Number of Receiving Lanes	LOS
Maravista Drive (EB/WB) at Strandherd Drive (NB/SB)			
Northbound (E-W)	>15	1	C
Southbound (E-W)	>15	2	A
Eastbound (N-S)	10 to 15	2	B
Westbound (N-S)	>15	2	A
Dealership Drive/Kennevale Drive (EB/WB) at Strandherd Drive (NB/SB)			
Northbound (E-W)	10 to 15	1	E
Southbound (E-W)	10 to 15	2	B
Eastbound (N-S)	>15	2	A
Westbound (N-S)	10 to 15	2	B

Based on Exhibit 22 – Minimum Desirable MMLOS Targets by Official Plan Policy/Designation & Road classification Strandherd Drive as a truck route is B whereas Dealership Drive/Kennevale Drive and Marasvista have a target of D as dealership drive is not a truck route based on the site being located in an urban employment area. As such all approaches with the exception of the northbound approach at both intersections meet the target.

19.0 SUMMARY AND RECCOMENDATIONS

After the scoping report the following are the conclusions pulled.

- Two automobile dealerships are anticipated to be developed located at 4149 Strandherd Drive in Barrhaven, with GFA of 2,011 m^2 (Myers Nissan) and 3,430m^2 (Myers Subaru);
- The development is planned to be done in two phases, 2022 and 2023 with each phase consisting of one building;
- Based on this survey the South Nepean area was shown to have the following mode shares; 15 % of auto passenger, 15% transit, 1 % bicycle, 0 % walking and 3 % other, resulting in 66% automobile drivers;
- 38 total collisions at the intersection of Strandherd Drive and Dealership Drive/Kennevale Drive, 36 at the intersection of Strandherd Drive and Maravasta Drive, 12 on Strandherd Drive Between Dealership Drive/Kennevale Drive and Maravasta, and 1 on Dealership Drive Between Strandherd Drive and end from the years 2016-2020;
- All movements operate well with the exceptions of the northbound through lane at the intersection of Strandherd Drive and Dealership Drive/Kennevale Drive which operated at an LOS of E with a v/c of 1.00;
- It is anticipated that the roadway improvements will aid with these critical movements;
- The study years include the existing conditions (2022), and the background and total conditions for: phase one buildout (2022), phase 2 buildout (2023) and 5-year Horizon (2028).

- The proposed development is anticipated to generate 88 trips during the am peak and 115 trips during the pm peak during phase 1 and a total of 139 trips during the am peak and 183 trips during the pm peak during phase 2
- With the widening of Strandherd Drive within the vicinity of the proposed development, it is anticipated that the development generated traffic demand will be satisfied by the transportation network.
- It is anticipated that the proposed development will provide adequate facilities to meet the City of Ottawa's complete Street design philosophy, meeting the majority of the basic and required TDM measures in bicycle walking, and transit. Along the boundary road transit level of service is relatively low, however as the development is not anticipated to generate a large volume of transit mode share trips, the impact on transit due to the development is expected to be minimal.
- Overall, all the roadways within the project study area operate at acceptable levels of service through all study analysis horizons.

APPENDIX A – TIA STEP 1 SCREENING FORM

City of Ottawa 2017 TIA Guidelines Screening Form

1. Description of Proposed Development

Municipal Address	4149 Strandherd Drive
Description of Location	Development of a Myers Nissan and another Future Myers Automobile Dealership
Land Use Classification	Automobile Sales (840)
Development Size (units)	N/a
Development Size (m^2)	Myers Nissan (2,011m^2) Future Myers (3,430m^2)
Number of Accesses and Locations	5 Accesses Total; 2 new Accessess onto Strandherd Drive, **1 Existing Access onto** Dealership Drive, 2 new Accesses onto Dealership Drive
Phase of Development	Planning
Buildout Year	TBD

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

2. Trip Generation Trigger

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

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

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

If the proposed development size is greater than the sizes **identified** above, **the Trip Generation Trigger is satisfied.**

3. **Location Triggers**

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

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

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

4. Safety Triggers

	Yes	No
Are posted speed limits on a boundary street are 80 km/hr or greater?		X
Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway?	X	
Is the proposed driveway within the area of influence of an adjacent traffic signal or roundabout (i.e. within 300 m of intersection in rural conditions, or within 150 m of intersection in urban/ suburban conditions)?	X	
Is the proposed driveway within auxiliary lanes of an intersection?	X	
Does the proposed driveway make use of an existing median break that serves an existing site?		X
Is there is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development?	X	
Does the development include a drive-thru facility?		X

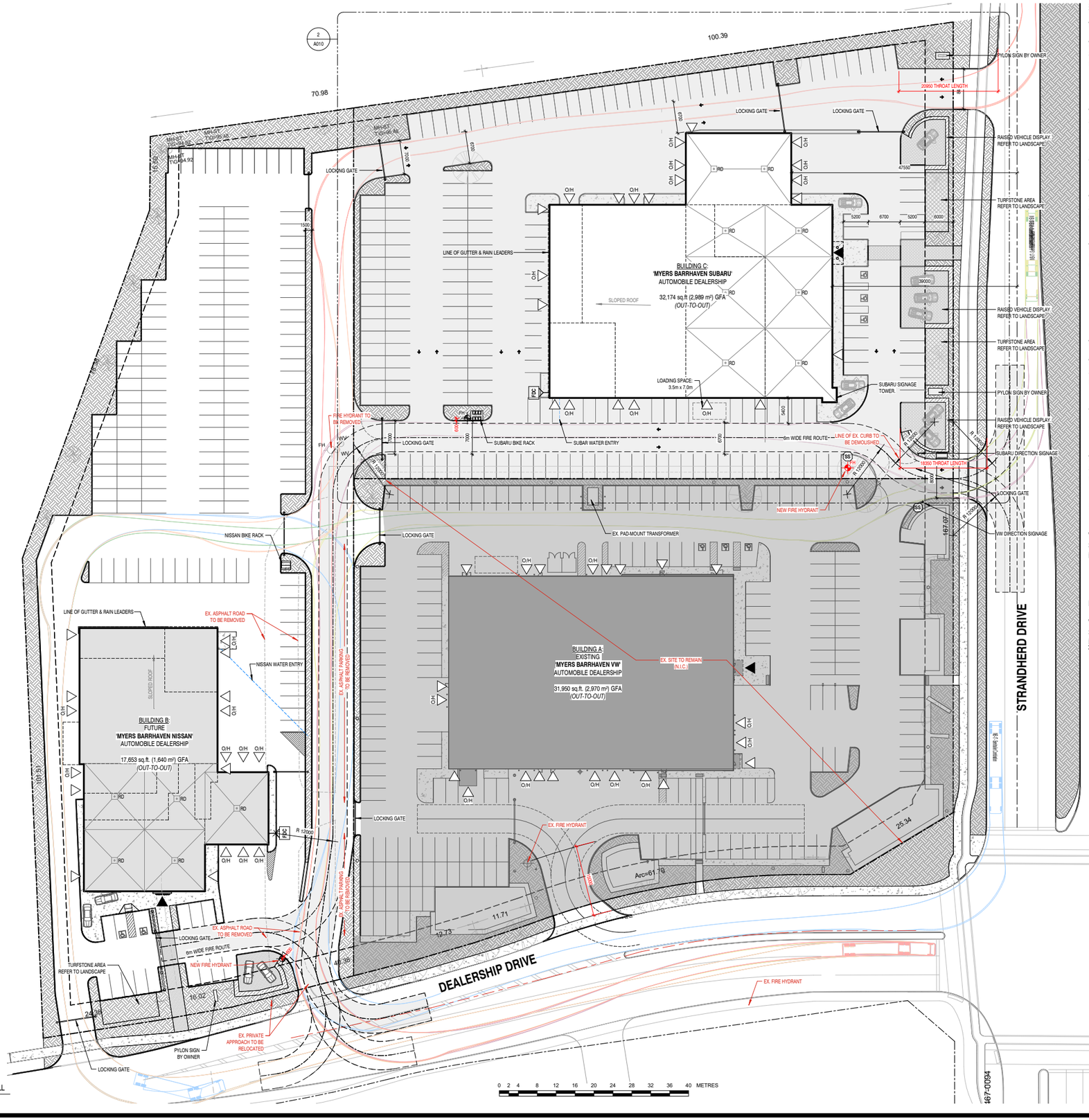
If any of the above questions were answered with 'Yes,' the Safety Trigger is satisfied.

5. Summary

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

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

APPENDIX B – SITE PLAN



1 / A010A SITE PLAN OVERALL
1 : 400

SITE / BUILDING / PARKING SUMMARY:

TOTAL SITE AREA = 33,784 m² (8.35 acres)

VW SITE	= 11,259 m² (2.78 acres)
SUBARU SITE	= 11,071 m² (2.74 acres)
NISSAN SITE	= 11,453 m² (2.83 acres)
	= 33,784 m² (8.35 acres)

BUILDING AREAS: *(OUT-TO-OUT)*

VW SITE	= 2,970 m²
SUBARU SITE	= 2,989 m²
NISSAN SITE	= 1,640 m²
	= 7,599 m²

OVERALL FLOOR SPACE INDEX = 0.25

LOT COVERAGE:

VW SITE	= 2,448 m²
SUBARU SITE	= 2,781 m²
NISSAN SITE	= 1,525 m²
	= 6,754 m²

TOTAL LOT COVERAGE = 20.0%

MINIMUM WIDTH OF LANDSCAPING:

ABUTTING STRANDHERD DR.	= 6.0m
ABUTTING STREET	= 3.2m
ABUTTING O'KEEFE DRAINAGE CORRIDOR	= 3.0m
OTHER CASES	= 0.0m

TOTAL LANDSCAPE AREA:

VW SITE	= 9,105 m²
SUBARU SITE	= 1,128 m²
NISSAN SITE	= 1,743 m²
	= 11,976 m²

% LANDSCAPE AREA = 35.4%

PARKING ON SITE:

	REQ'D	PROV'D
VW SITE	59 spaces	183 spaces
SUBARU SITE	xx	203 spaces
NISSAN SITE	37 spaces	170 spaces
	= xx	**558 spaces**

BARRIER-FREE PARKING:

	REQ'D	PROV'D
VW SITE	1 x 'A', 2x 'B'	3x 'A'
SUBARU SITE	xx	2x 'A', 1x 'B'
NISSAN SITE	1x 'A', 1x 'B'	1x 'A', 1x 'B'

'A' = 3.4m x 5.2m
'B' = 2.6m x 5.2m

BICYCLE PARKING:

	REQ'D	PROV'D
VW SITE	2	2
SUBARU SITE	3	3
NISSAN SITE	2	2
TOTAL	**7**	**7**

SITE PLAN SYMBOLS

ICON	DESCRIPTION
	Existing Buildings
	Proposed Buildings
	Property Lines
	Setback Lines
	Fence
	Road Lanes
	Existing Concrete Curb
	Proposed Concrete Curb
	Depressed Concrete Curb
	Concrete Sidewalk
	Proposed Concrete Pavers
	Sawcut Asphalt
	Existing Landscape Area
	Proposed Landscape Area
	Proposed Turfstone Area
	Barrier Free Parking Space
	Exterior Bicycle Parking Spot with Bollard Style Bike Rack
	Two Way Vehicle Circulation
	Principal Entrance Door
	Exterior Door ('O/H' indicates Overhead Door)
	Exterior 6m Wide Fire Route (12m centerline radius on all turns, TYP.)
FDC	Fire Department Connection
FH	Fire Hydrant
SS	Stop Sign

TOPOGRAPHICAL SKETCH OF ELEVATIONS OVER PART OF
BLOCK 4
REGISTERED PLAN 4M-1538
CITY OF OTTAWA
ANNIS, O'SULLIVAN, VOLLEBEKK Ltd.
E.H. Herweyer O.L.S.
Field Work Completed: Sept. 2019

REVISIONS

No.	DATE	DESCRIPTION
0	11 Jan 2022	Issued for Coordination
1	22 Apr 2022	Issued for Coordination
2	20 July 2022	Progress for Review
3	09 Aug 2022	Revised per SPA City Comments 1
4	18 Aug 2022	Issued for Consultant Coordination

It is the responsibility of the appropriate contractor to check and verify all dimensions on site and report all errors and / or omissions to the Architect.
All contractors must comply with all pertinent codes and by-laws.
Do not scale drawings.
This drawing may not be used for construction until signed by KWC Architects Inc. and shall not be used without the Architect's consent.

north

architect's seal

KWC ARCHITECTS INC.
383 Parkdale Avenue, Suite 201
Ottawa, Ontario, Canada, K1Y 4R4
Phone: 613 238-2217
Fax: 613 238-6595
E-Mail: kwc@kwc-arch.com

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owner
ZENA INVESTMENT CORPORATION

project
MYERS BARRHAVEN SUBARU AUTOMOBILE DEALSHIP
4149 Strandherd Drive

drawing title
SITE PLAN - OVERALL COMPOSITE PLAN

project no.	kwc 2174
scale	As indicated
drawn by	CM / AK
date	11 JANUARY 2022

drawing no.
A010A

APPENDIX C – TRAFFIC DATA

McINTOSH PERRY

South Nepean

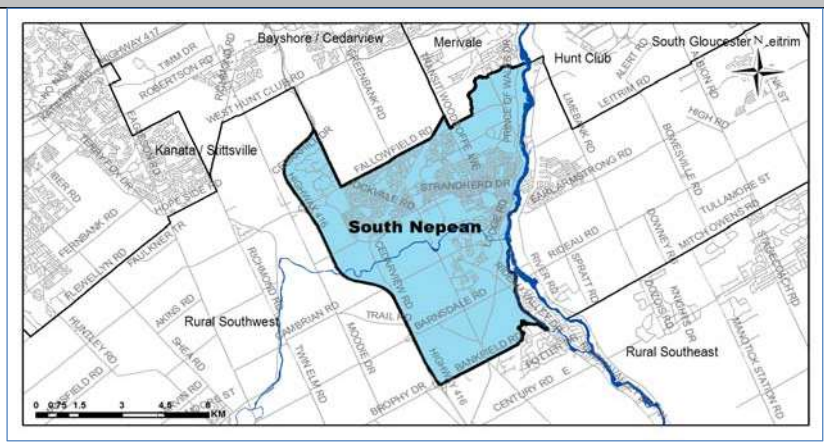
Demographic Characteristics

Population	72,750	Actively Travelled	57,830
Employed Population	35,540	Number of Vehicles	44,130
Households	26,260	Area (km^2)	54.8

Occupation Status (age 5+)	Male	Female	Total
Full Time Employed	17,630	14,730	32,350
Part Time Employed	620	2,570	3,190
Student	9,910	9,420	19,340
Retiree	3,420	4,200	7,620
Unemployed	720	500	1,220
Homemaker	180	2,390	2,570
Other	270	540	810
Total:	32,750	34,350	67,100

Traveller Characteristics	Male	Female	Total
Transit Pass Holders	5,590	6,100	11,700
Licensed Drivers	24,480	25,260	49,740
Telecommuters	60	310	370
Trips made by residents	88,180	97,380	185,550

Selected Indicators	
Daily Trips per Person (age 5+)	2.77
Vehicles per Person	0.61
Number of Persons per Household	2.77
Daily Trips per Household	7.07
Vehicles per Household	1.68
Workers per Household	1.35
Population Density (Pop/km2)	1330

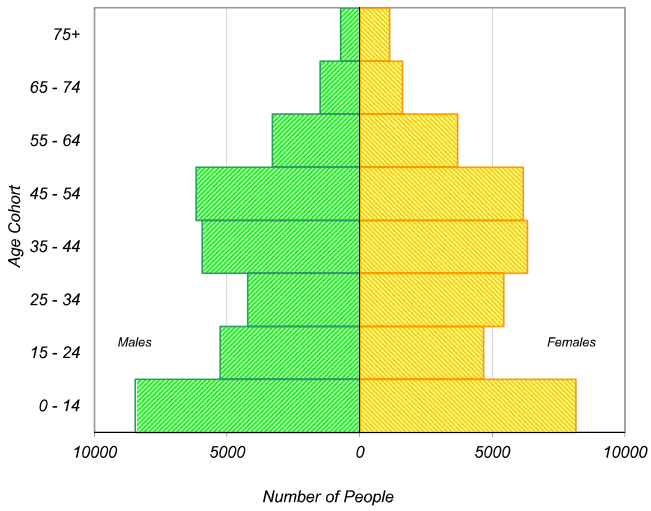


Household Size		
1 person	3,560	14%
2 persons	7,300	28%
3 persons	5,500	21%
4 persons	6,320	24%
5+ persons	3,590	14%
Total:	26,260	100%

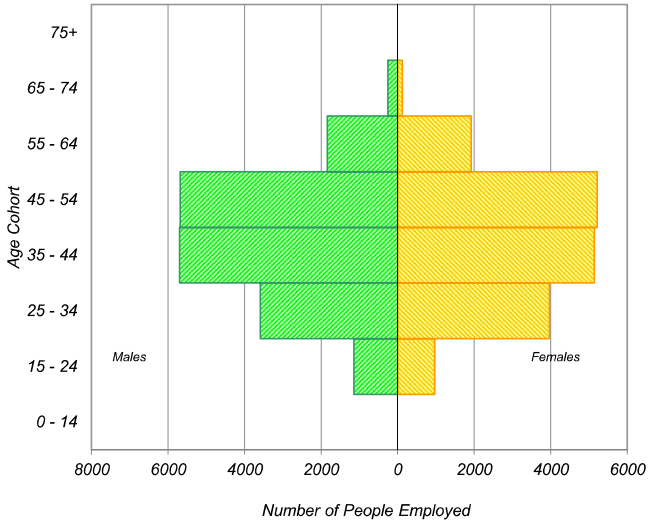
Households by Vehicle Availability		
0 vehicles	810	3%
1 vehicle	9,500	36%
2 vehicles	13,800	53%
3 vehicles	1,730	7%
4+ vehicles	410	2%
Total:	26,260	100%

Households by Dwelling Type		
Single-detached	14,530	55%
Semi-detached	3,090	12%
Townhouse	7,770	30%
Apartment/Condo	870	3%
Total:	26,260	100%

Population



Employed Population

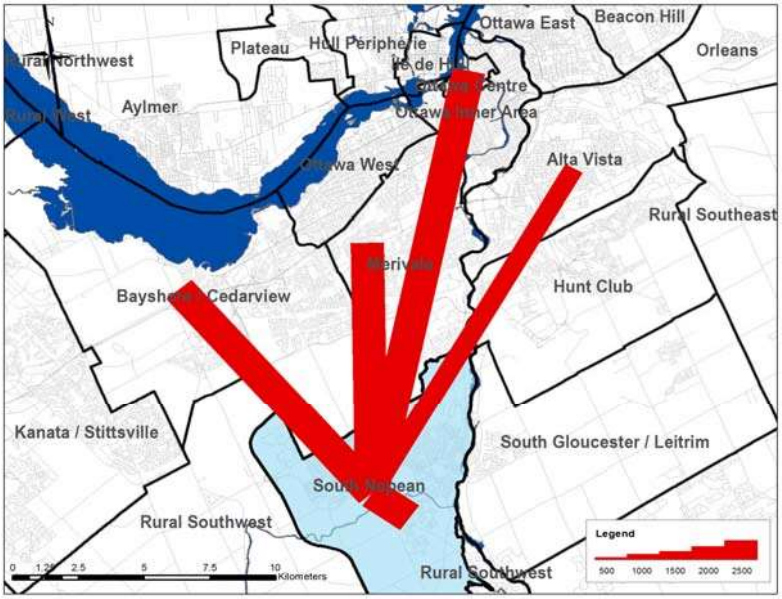


* In 2005 data was only collected for household members aged 11+ therefore these results cannot be compared to the 2011 data.

Travel Patterns

Top Five Destinations of Trips from South Nepean

AM Peak Period



Summary of Trips to and from South Nepean

AM Peak Period (6:30 - 8:59) Districts	Destinations of Trips From District	% Total	Origins of Trips To District	% Total
Ottawa Centre	3,820	9%	30	0%
Ottawa Inner Area	2,270	5%	340	1%
Ottawa East	630	2%	50	0%
Beacon Hill	370	1%	50	0%
Alta Vista	2,360	6%	460	2%
Hunt Club	920	2%	440	2%
Merivale	4,310	10%	790	3%
Ottawa West	1,830	4%	160	1%
Bayshore / Cedarview	3,230	8%	700	3%
Orléans	330	1%	200	1%
Rural East	20	0%	60	0%
Rural Southeast	250	1%	580	2%
South Gloucester / Leitrim	100	0%	310	1%
South Nepean	17,260	42%	17,260	74%
Rural Southwest	580	1%	970	4%
Kanata / Stittsvile	1,800	4%	690	3%
Rural West	80	0%	30	0%
Île de Hull	840	2%	50	0%
Hull Périphérie	260	1%	40	0%
Plateau	0	0%	40	0%
Aylmer	60	0%	40	0%
Rural Northwest	40	0%	40	0%
Pointe Gatineau	0	0%	0	0%
Gatineau Est	0	0%	20	0%
Rural Northeast	10	0%	20	0%
Buckingham / Masson-Angers	20	0%	0	0%
Ontario Sub-Total:	40,160	97%	23,120	99%
Québec Sub-Total:	1,230	3%	250	1%
Total:	41,390	100%	23,370	100%

Trips by Trip Purpose

24 Hours	From District		To District		Within District	
Work or related	25,640	41%	5,290	8%	4,680	6%
School	5,310	8%	1,430	2%	10,610	13%
Shopping	4,940	8%	4,220	7%	12,840	16%
Leisure	6,960	11%	4,020	6%	5,760	7%
Medical	1,720	3%	900	1%	840	1%
Pick-up / drive passenger	4,040	6%	3,920	6%	7,530	9%
Return Home	11,460	18%	40,960	65%	34,630	43%
Other	2,640	4%	2,090	3%	3,020	4%
Total:	62,710	100%	62,830	100%	79,910	100%

AM Peak (06:30 - 08:59)	From District		To District		Within District	
Work or related	18,160	75%	2,890	47%	2,120	12%
School	3,280	14%	1,170	19%	9,180	53%
Shopping	180	1%	70	1%	720	4%
Leisure	350	1%	230	4%	220	1%
Medical	400	2%	60	1%	100	1%
Pick-up / drive passenger	1,060	4%	770	13%	2,860	17%
Return Home	210	1%	640	10%	1,070	6%
Other	520	2%	290	5%	990	6%
Total:	24,160	100%	6,120	100%	17,260	100%

PM Peak (15:30 - 17:59)	From District		To District		Within District	
Work or related	410	5%	290	1%	410	2%
School	250	3%	0	0%	50	0%
Shopping	900	11%	1,090	5%	2,090	11%
Leisure	1,420	17%	790	3%	1,840	10%
Medical	190	2%	230	1%	90	0%
Pick-up / drive passenger	820	10%	1,700	7%	1,610	9%
Return Home	3,800	47%	18,990	81%	11,810	64%
Other	360	4%	490	2%	540	3%
Total:	8,150	100%	23,580	100%	18,440	100%

Peak Period (%)	Total:	% of 24 Hours	Within District (%)
24 Hours	205,450		39%
AM Peak Period	47,540	23%	36%
PM Peak Period	50,170	24%	37%

Trips by Primary Travel Mode

24 Hours	From District		To District		Within District	
Auto Driver	41,340	66%	41,280	66%	39,110	49%
Auto Passenger	9,400	15%	10,030	16%	15,320	19%
Transit	9,990	16%	9,520	15%	2,260	3%
Bicycle	310	0%	320	1%	960	1%
Walk	80	0%	170	0%	13,060	16%
Other	1,600	3%	1,520	2%	9,210	12%
Total:	62,720	100%	62,840	100%	79,920	100%

AM Peak (06:30 - 08:59)	From District		To District		Within District	
Auto Driver	14,570	60%	4,360	71%	5,800	34%
Auto Passenger	1,930	8%	780	13%	3,210	19%
Transit	6,610	27%	330	5%	730	4%
Bicycle	80	0%	50	1%	320	2%
Walk	20	0%	10	0%	3,000	17%
Other	930	4%	590	10%	4,200	24%
Total:	24,140	100%	6,120	100%	17,260	100%

PM Peak (15:30 - 17:59)	From District		To District		Within District	
Auto Driver	5,840	72%	14,640	62%	8,420	46%
Auto Passenger	1,730	21%	2,680	11%	3,930	21%
Transit	350	4%	5,770	24%	650	4%
Bicycle	80	1%	110	0%	150	1%
Walk	30	0%	0	0%	3,680	20%
Other	100	1%	380	2%	1,590	9%
Total:	8,130	100%	23,580	100%	18,420	100%

Avg Vehicle Occupancy	From District	To District	Within District
24 Hours	1.23	1.24	1.39
AM Peak Period	1.13	1.18	1.55
PM Peak Period	1.30	1.18	1.47

Transit Modal Split	From District	To District	Within District
24 Hours	16%	16%	4%
AM Peak Period	29%	6%	7%
PM Peak Period	4%	25%	5%

Traffic Signal Timing

City of Ottawa, Public Works & Environmental Services Department

Traffic Signal Operations Unit

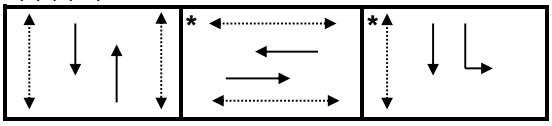
Intersection:	***Main:*** Strandherd	***Side:***	Kennevale
Controller:	**ATC3**	**TSD:**	**6715**
Author:	Ruben Bonzele	**Date:**	07-Feb-2022

Existing Timing Plans†

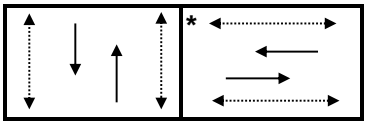
	Plan							**Ped Minimum Time**		
	AM Peak 1	**Off Peak** 2	**PM Lite** 3	**Night** 4	**Weekend** 5	**Evening** 12	**PM Peak** 13	***Walk***	***DW***	***A+R***
Cycle	120	110	120	80	110	95	140			
Offset	29	93	57	X	93	X	57			
NB Thru	70	60	67	42	60	42	87	7	22	3.7+2.4
SB Thru	70	60	67	42	60	42	87	7	22	3.7+2.4
EB Thru	38	38	38	38	38	38	38	7	24	3.3+3.3
WB Thru	38	38	38	38	38	38	38	7	24	3.3+3.3
SB Left	12	12	15	-	12	15	15	-	-	3.7+2.1

Phasing Sequence‡

Plan: 1,2,3,5,12,13



Plan: 4



Schedule

Weekday

Time	Plan
0:15	4
6:00	1
9:30	2
15:00	3
15:30	13
18:00	3
18:30	2
20:00	12
22:30	4

Weekend

Time	Plan
0:15	4
8:30	12
10:00	5
18:00	12
22:30	4

Notes

†: Time for each direction includes amber and all red intervals

‡: Start of first phase should be used as reference point for offset

Asterisk (*) Indicates actuated phase

(fp): Fully Protected Left Turn

◄·····► Pedestrian signal

Cost is $61.16 ($54.12 + HST)

Traffic Signal Timing

City of Ottawa, Public Works & Environmental Services Department

Traffic Signal Operations Unit

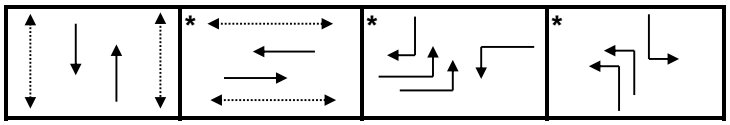
Intersection:	***Main:*** Strandherd	***Side:***	Maravista
Controller:	**ATC3**	**TSD:**	**6728**
Author:	Ruben Bonzele	**Date:**	07-Feb-2022

Existing Timing Plans†

	Plan						**Ped Minimum Time**		
	AM Peak 1	**Off Peak** 2	**PM Peak** 3	**Night** 4	**Weekend** 5	**Evening** 12	***Walk***	***DW***	***A+R***
Cycle	120	110	120	110	110	120			
Offset	83	0	82	X	0	X			
NB Thru	38	37	40	33	35	33	7	17	3.7+2.8
SB Thru	38	37	40	33	35	33	7	17	3.7+2.8
EB Thru	47	47	47	47	47	47	7	32	3.3+4.3
WB Thru	47	47	47	47	47	47	7	32	3.3+4.3
EB Left (fp)	20	13	15	15	13	20	-	-	3.3+4.3
WB Left (fp)	20	13	15	15	13	20	-	-	3.3+4.3
SB Right	20	13	15	15	13	20	-	-	3.3+4.3
NB Left (fp)	15	13	18	15	15	20	-	-	3.7+2.7
SB Left (fp)	15	13	18	15	15	20	-	-	3.7+2.7

Phasing Sequence‡

Plan: All



Notes: 1) For plan 1, if the EW pedestrian phase is not actuated, the EW thru will be forced off 19s early
2) For plan 3,4,12 if the EW pedestrian phase is not actuated, the EW thru will be forced off after 30s

Schedule

Weekday

Time	Plan
0:15	4
6:00	1
9:30	2
15:00	3
18:30	2
20:00	12
22:30	4

Weekend

Time	Plan
0:15	4
8:30	12
10:00	5
18:00	12
23:00	4

Notes

†: Time for each direction includes amber and all red intervals

‡: Start of first phase should be used as reference point for offset

Asterisk (*) Indicates actuated phase

(fp): Fully Protected Left Turn

◄·····► Pedestrian signal

Cost is $61.16 ($54.12 + HST)

Transportation Services - Traffic Services

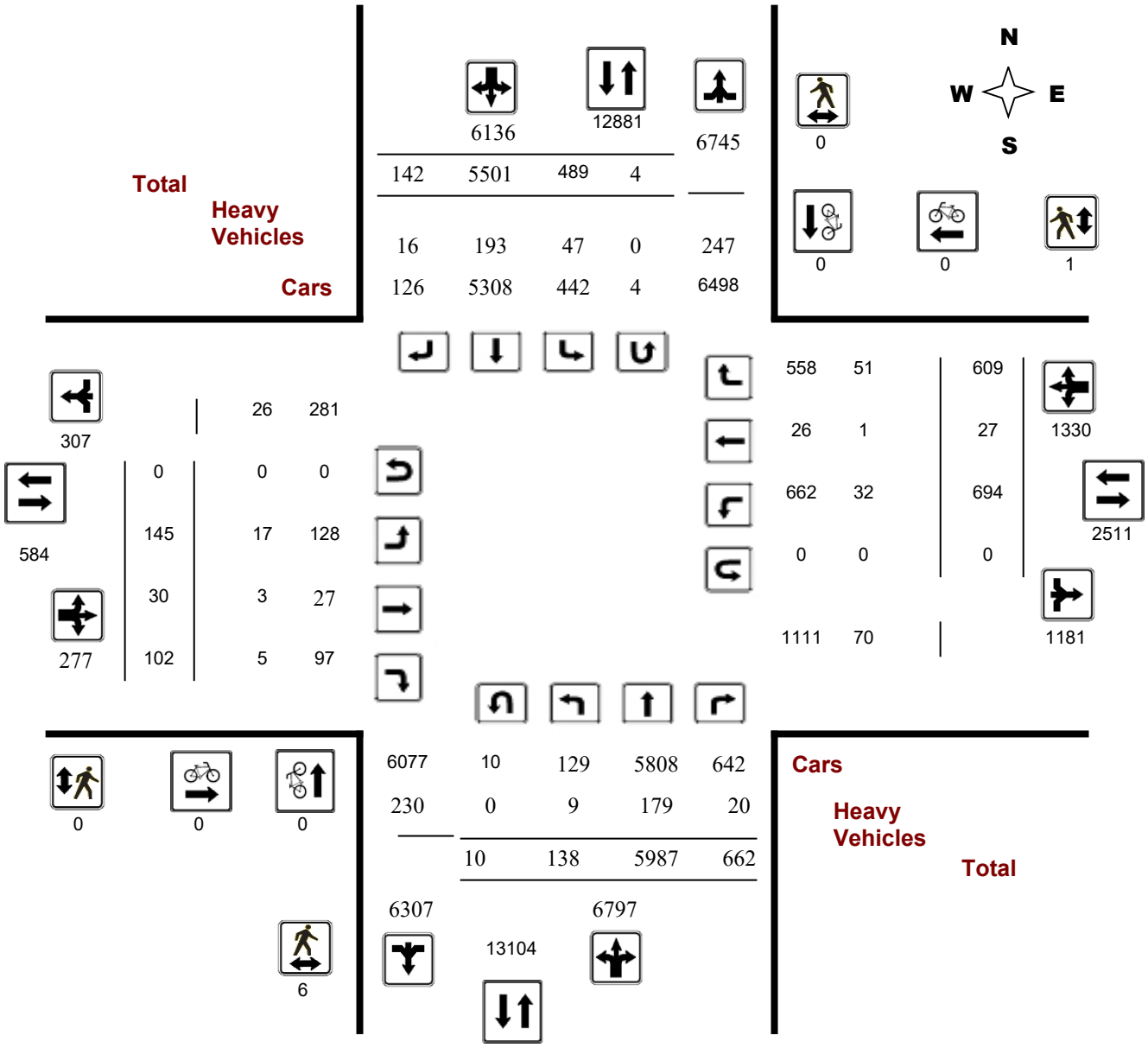
Turning Movement Count - Study Results

KENNEVALE DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018
Start Time: 07:00

WO No: 37427
Device: Miovision

Full Study Diagram



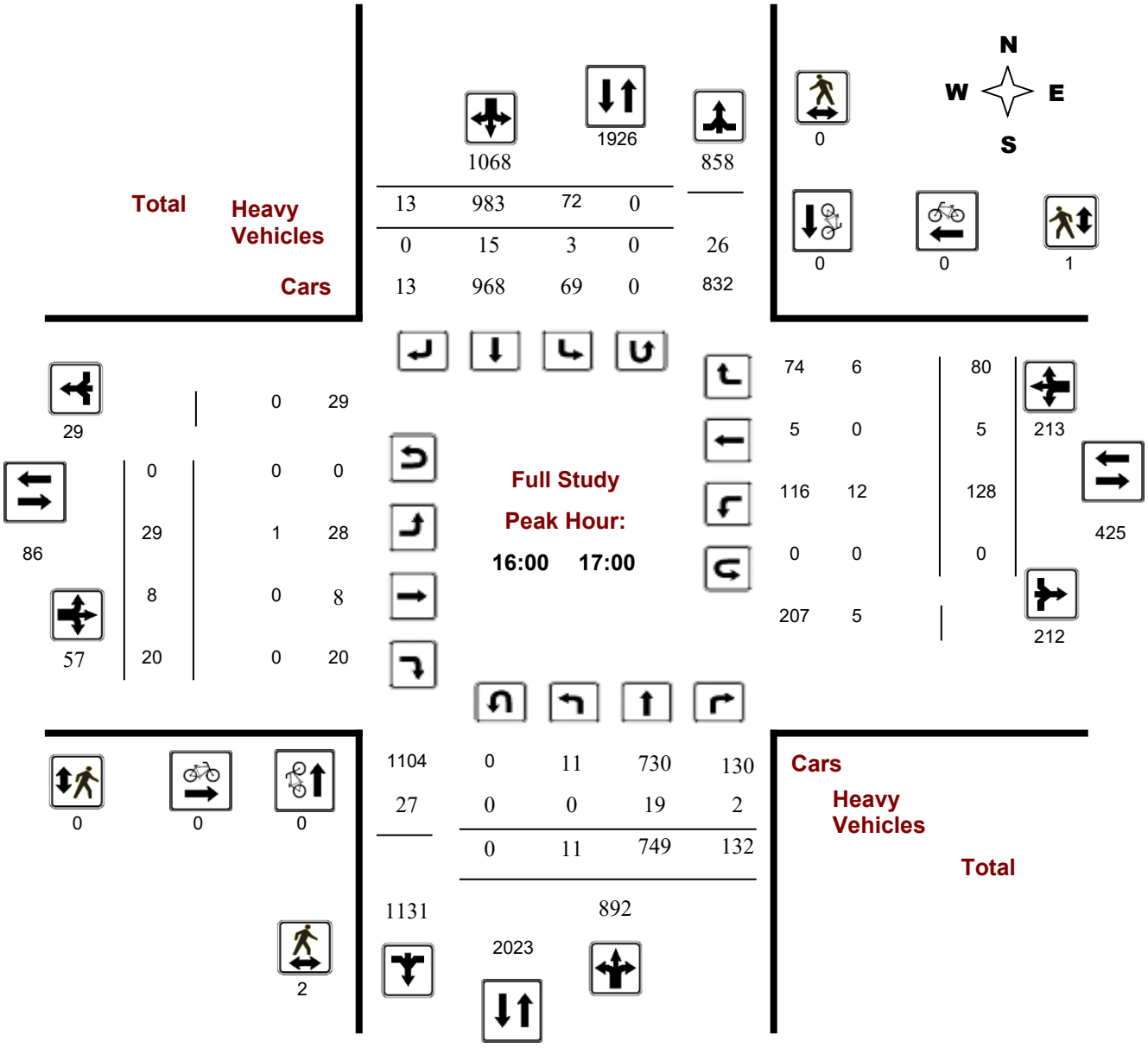
Transportation Services - Traffic Services

Turning Movement Count - Study Results

KENNEVALE DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018
Start Time: 07:00
WO No: 37427
Device: Miovision

Full Study Peak Hour Diagram



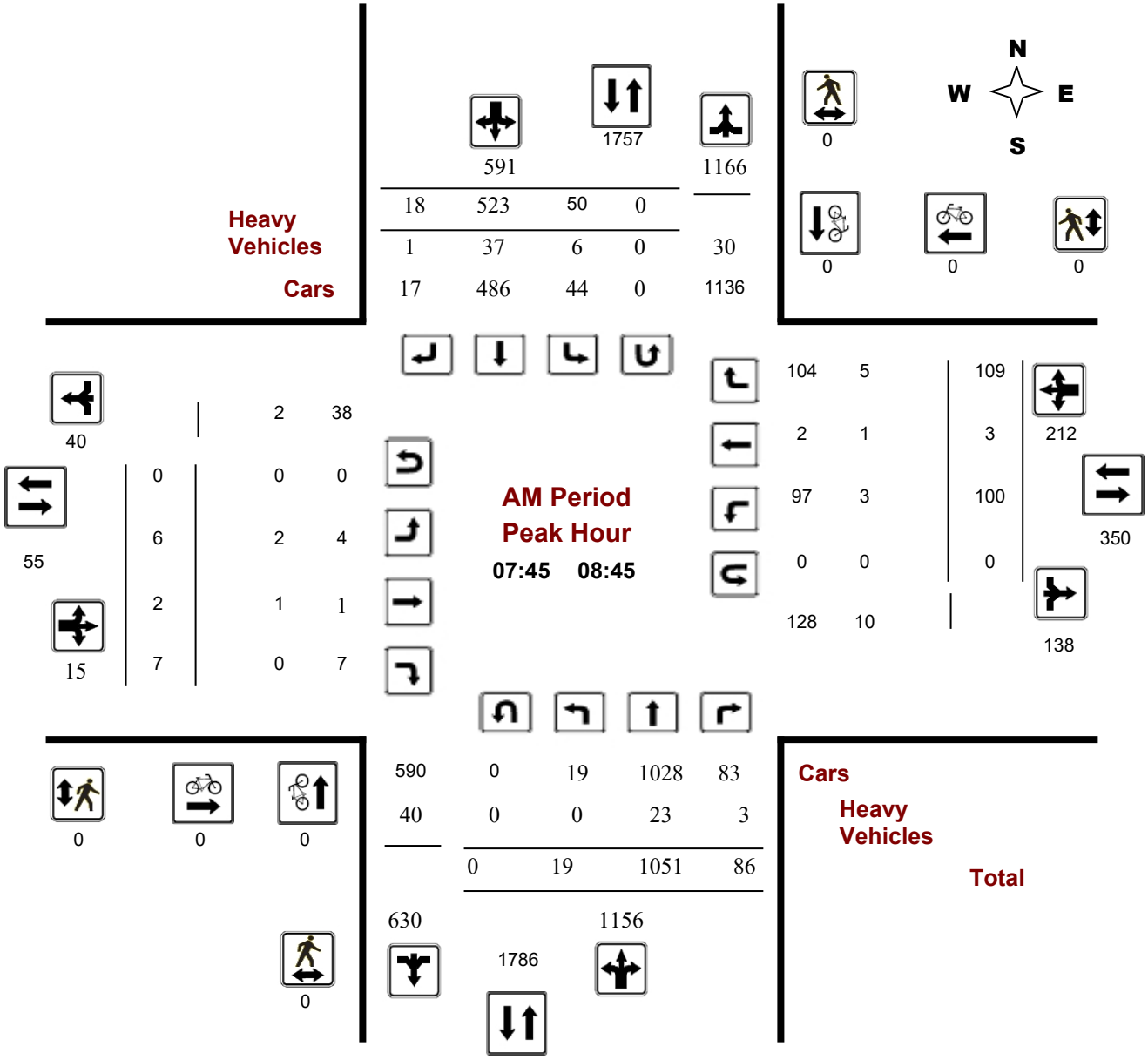
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

KENNEVALE DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018 **WO No:** 37427

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



Comments

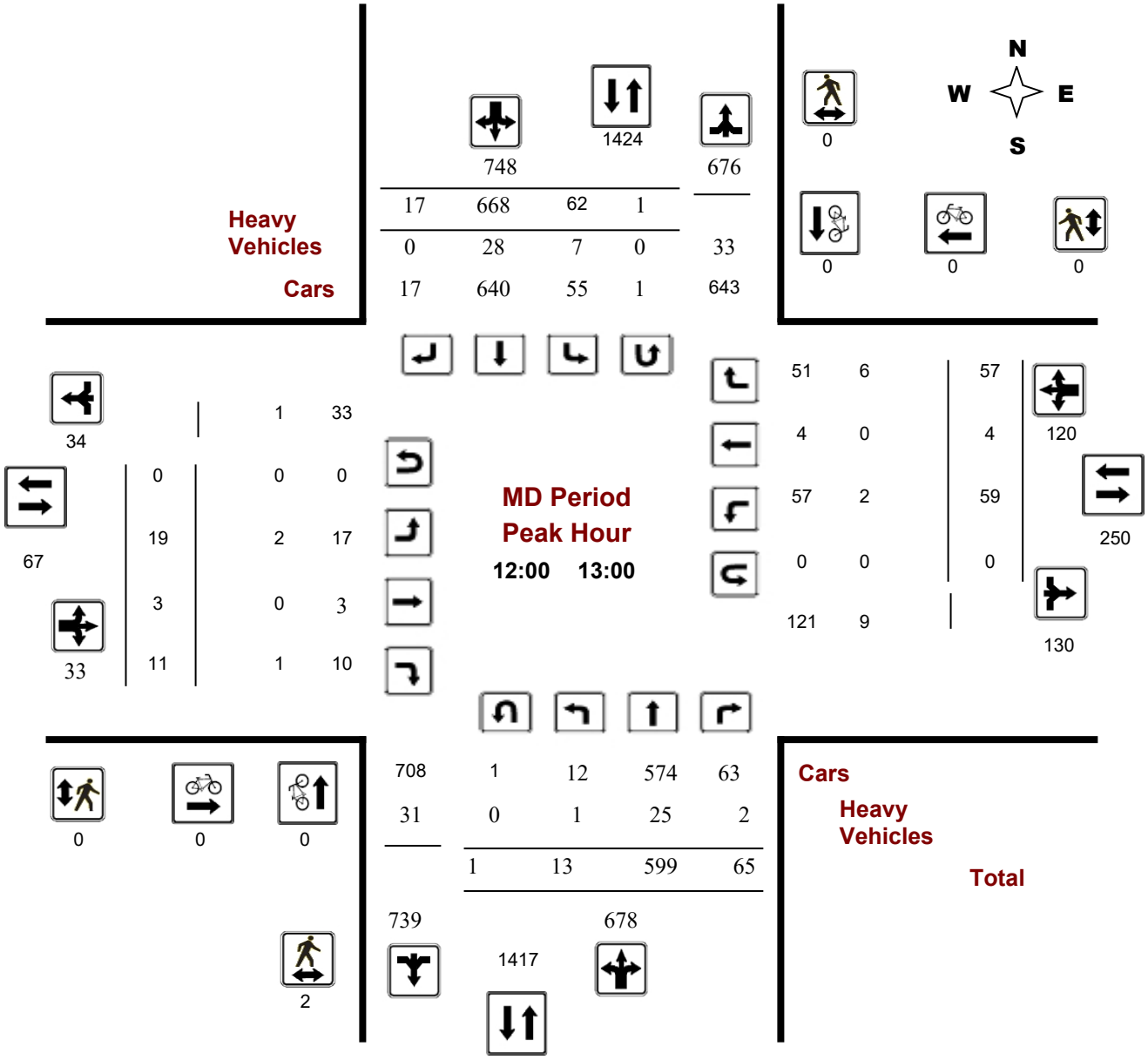
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

KENNEVALE DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018 **WO No:** 37427

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



Comments

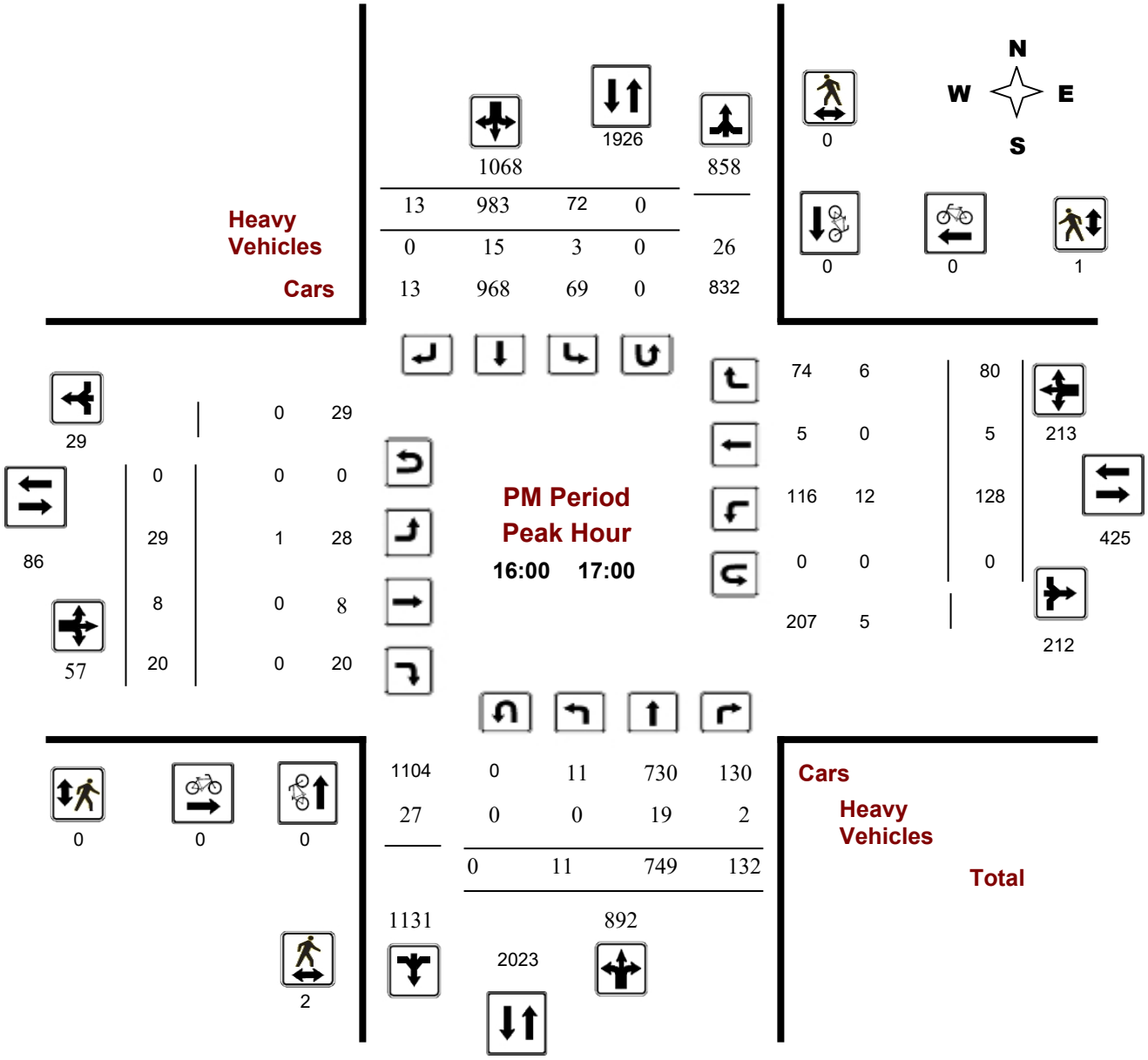
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

KENNEVALE DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018 **WO No:** 37427

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



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

KENNEVALE DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018 **WO No:** 37427

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

Full Study Summary (8 HR Standard)

Survey Date: Thursday, January 18, 2018

Total Observed U-Turns

Northbound: 10 Southbound: 4

Eastbound: 0 Westbound: 0

AADT Factor

1.39

	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	14	945	57	**1016**	35	466	19	**520**	**1536**	4	1	6	**11**	80	3	100	**183**	**194**	**1730**
08:00 09:00	23	1039	93	**1155**	53	477	23	**553**	**1708**	8	2	8	**18**	96	2	105	**203**	**221**	**1929**
09:00 10:00	28	696	65	**789**	47	448	14	**509**	**1298**	17	4	10	**31**	52	1	56	**109**	**140**	**1438**
11:30 12:30	14	603	57	**674**	69	589	21	**679**	**1353**	22	5	15	**42**	61	5	60	**126**	**168**	**1521**
12:30 13:30	16	567	60	**643**	60	683	18	**761**	**1404**	23	0	6	**29**	60	1	63	**124**	**153**	**1557**
15:00 16:00	20	670	100	**790**	83	866	23	**972**	**1762**	25	7	20	**52**	111	5	74	**190**	**242**	**2004**
16:00 17:00	11	749	132	**892**	72	983	13	**1068**	**1960**	29	8	20	**57**	128	5	80	**213**	**270**	**2230**
17:00 18:00	12	718	98	**828**	70	989	11	**1070**	**1898**	17	3	17	**37**	106	5	71	**182**	**219**	**2117**
Sub Total	138	5987	662	**6787**	489	5501	142	**6132**	**12919**	145	30	102	**277**	694	27	609	**1330**	**1607**	**14526**
U Turns				**10**				**4**	**14**				**0**				**0**	**0**	**14**
Total	138	5987	662	**6797**	489	5501	142	**6136**	**12933**	145	30	102	**277**	694	27	609	**1330**	**1607**	**14540**
EQ 12Hr	192	8322	920	**9448**	680	7646	197	**8529**	**17977**	202	42	142	**385**	965	38	847	**1849**	**2234**	**20211**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	192	8322	920	**9448**	680	7646	197	**8529**	**17977**	202	42	142	**385**	965	38	847	**1849**	**2234**	**20211**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**1**					
AVG 24Hr	251	10902	1205	**12377**	890	10017	259	**11173**	**23550**	264	55	186	**504**	1264	49	1109	**2422**	**2926**	**26476**
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

KENNEVALE DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018 **WO No:** 37427

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	1	193	7	201	7	86	3	96	614	1	1	1	3	12	1	24	37	614	337
07:15	07:30	3	231	17	251	6	131	6	143	803	1	0	1	2	27	1	18	46	803	442
07:30	07:45	4	250	15	270	11	96	4	111	780	2	0	2	4	19	0	29	48	780	433
07:45	08:00	6	271	18	295	11	153	6	170	942	0	0	2	2	22	1	29	52	942	519
08:00	08:15	7	240	21	268	23	136	6	165	871	1	0	2	3	29	1	30	60	871	496
08:15	08:30	1	276	23	300	7	130	2	139	895	2	1	3	6	21	1	24	46	895	491
08:30	08:45	5	264	24	293	9	104	4	117	835	3	1	0	4	28	0	26	54	835	468
08:45	09:00	10	259	25	294	14	107	11	132	840	2	0	3	5	18	0	25	43	840	474
09:00	09:15	8	173	17	199	8	92	2	102	605	2	1	5	8	17	1	14	32	605	341
09:15	09:30	6	209	17	234	11	130	5	146	744	4	1	0	5	8	0	11	19	744	404
09:30	09:45	10	164	14	189	15	119	2	136	657	8	2	2	12	18	0	20	38	657	375
09:45	10:00	4	150	17	171	13	107	5	125	579	3	0	3	6	9	0	11	20	579	322
11:30	11:45	3	161	16	181	10	134	4	148	672	7	1	4	12	18	2	18	38	672	379
11:45	12:00	5	128	13	146	20	149	5	174	634	5	1	1	7	14	0	17	31	634	358
12:00	12:15	2	155	12	169	16	160	3	179	696	4	2	6	12	8	0	15	23	696	383
12:15	12:30	4	159	16	180	23	146	9	178	705	6	1	4	11	21	3	10	34	705	403
12:30	12:45	2	140	21	163	12	166	4	182	689	4	0	1	5	17	1	16	34	689	384
12:45	13:00	5	145	16	166	11	196	1	209	751	5	0	0	5	13	0	16	29	751	409
13:00	13:15	5	136	12	153	21	154	6	181	672	7	0	2	9	18	0	21	39	672	382
13:15	13:30	4	146	11	161	16	167	7	190	696	7	0	3	10	12	0	10	22	696	383
15:00	15:15	5	176	18	200	21	202	6	230	859	7	3	5	15	16	2	21	39	859	484
15:15	15:30	3	192	18	215	24	225	8	257	948	4	3	4	11	28	1	21	50	948	533
15:30	15:45	9	154	29	192	18	225	5	248	873	13	0	4	17	24	0	13	37	873	494
15:45	16:00	3	148	35	186	20	214	4	238	856	1	1	7	9	43	2	19	64	856	497
16:00	16:15	1	203	37	241	15	256	1	272	1026	4	1	4	9	24	1	22	47	1026	569
16:15	16:30	5	175	24	204	19	251	4	274	973	5	3	7	15	38	1	19	58	973	551
16:30	16:45	2	187	36	225	19	252	6	277	1001	12	2	3	17	30	2	15	47	1001	566
16:45	17:00	3	184	35	222	19	224	2	245	949	8	2	6	16	36	1	24	61	949	544
17:00	17:15	3	156	29	188	19	248	2	269	920	9	0	7	16	24	1	19	44	920	517
17:15	17:30	1	177	21	199	18	252	2	274	952	2	1	2	5	31	3	13	47	952	525
17:30	17:45	2	196	23	221	21	261	2	284	1017	5	1	6	12	21	0	23	44	1017	561
17:45	18:00	6	189	25	220	12	228	5	245	931	1	1	2	4	30	1	16	47	931	516
Total:		138	5987	662	6797	489	5501	142	6136	25985	145	30	102	277	694	27	609	1330	25985	14,540

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

KENNEVALE DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018 **WO No:** 37427

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	0	0	0	0	0	0
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	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		0	0	**0**	0	0	0	0

Transportation Services - Traffic Services

Turning Movement Count - Study Results

KENNEVALE DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018 **WO No:** 37427

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	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	0	0	**0**	0	0	**0**	**0**
08:00 08:15	0	0	**0**	0	0	**0**	**0**
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	1	0	**1**	0	0	**0**	**1**
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	2	0	**2**	0	0	**0**	**2**
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	1	0	**1**	0	0	**0**	**1**
16:00 16:15	0	0	**0**	0	0	**0**	**0**
16:15 16:30	1	0	**1**	0	0	**0**	**1**
16:30 16:45	1	0	**1**	0	1	**1**	**2**
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	6	0	**6**	0	1	**1**	**7**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

KENNEVALE DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018 **WO No:** 37427

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	1	2	1	**12**	1	8	0	**12**	**24**	0	0	0	**1**	0	0	1	**3**	**4**	**14**
07:15	07:30	0	4	1	**12**	2	7	0	**14**	**26**	1	0	0	**1**	0	0	0	**3**	**4**	**15**
07:30	07:45	2	3	0	**11**	0	5	0	**9**	**20**	1	0	0	**3**	1	0	0	**1**	**4**	**12**
07:45	08:00	0	4	0	**13**	1	9	0	**15**	**28**	0	0	0	**0**	0	0	1	**2**	**2**	**15**
08:00	08:15	0	6	2	**15**	4	7	0	**20**	**35**	1	0	0	**1**	0	0	2	**8**	**9**	**22**
08:15	08:30	0	8	0	**19**	1	8	0	**19**	**38**	0	1	0	**2**	3	1	2	**8**	**10**	**24**
08:30	08:45	0	5	1	**19**	0	13	1	**20**	**39**	1	0	0	**2**	0	0	0	**1**	**3**	**21**
08:45	09:00	0	10	4	**19**	3	5	1	**24**	**43**	1	0	0	**2**	0	0	4	**11**	**13**	**28**
09:00	09:15	1	8	1	**18**	1	5	2	**18**	**36**	0	0	1	**4**	2	0	2	**6**	**10**	**23**
09:15	09:30	1	8	0	**22**	1	13	1	**25**	**47**	1	0	0	**3**	0	0	1	**2**	**5**	**26**
09:30	09:45	1	7	0	**19**	2	11	1	**27**	**46**	4	1	0	**7**	0	0	2	**5**	**12**	**29**
09:45	10:00	0	12	0	**16**	2	4	1	**21**	**37**	0	0	0	**1**	0	0	2	**4**	**5**	**21**
11:30	11:45	0	8	1	**17**	3	7	1	**24**	**41**	1	0	1	**3**	0	0	4	**8**	**11**	**26**
11:45	12:00	0	6	0	**14**	3	7	2	**22**	**36**	1	1	0	**4**	1	0	3	**8**	**12**	**24**
12:00	12:15	1	6	0	**16**	1	9	0	**17**	**33**	1	0	0	**2**	0	0	0	**1**	**3**	**18**
12:15	12:30	0	8	1	**15**	3	4	0	**19**	**34**	0	0	1	**1**	1	0	4	**9**	**10**	**22**
12:30	12:45	0	7	1	**15**	1	6	0	**15**	**30**	0	0	0	**0**	1	0	1	**4**	**4**	**17**
12:45	13:00	0	4	0	**13**	2	9	0	**17**	**30**	1	0	0	**1**	0	0	1	**3**	**4**	**17**
13:00	13:15	1	7	1	**15**	1	5	1	**20**	**35**	1	0	0	**3**	1	0	5	**8**	**11**	**23**
13:15	13:30	1	2	1	**14**	3	7	1	**14**	**28**	1	0	2	**5**	1	0	0	**5**	**10**	**19**
15:00	15:15	0	8	0	**18**	2	6	1	**18**	**36**	0	0	0	**1**	4	0	1	**7**	**8**	**22**
15:15	15:30	0	5	0	**12**	2	4	1	**15**	**27**	0	0	0	**1**	3	0	3	**8**	**9**	**18**
15:30	15:45	0	7	3	**14**	0	3	0	**10**	**24**	0	0	0	**0**	1	0	0	**4**	**4**	**14**
15:45	16:00	0	3	0	**11**	3	7	2	**18**	**29**	0	0	0	**2**	1	0	3	**7**	**9**	**19**
16:00	16:15	0	6	1	**21**	1	7	0	**17**	**38**	0	0	0	**0**	7	0	3	**12**	**12**	**25**
16:15	16:30	0	5	0	**11**	0	3	0	**10**	**21**	0	0	0	**0**	3	0	2	**5**	**5**	**13**
16:30	16:45	0	2	1	**6**	2	2	0	**7**	**13**	1	0	0	**1**	1	0	0	**4**	**5**	**9**
16:45	17:00	0	6	0	**10**	0	3	0	**10**	**20**	0	0	0	**0**	1	0	1	**2**	**2**	**11**
17:00	17:15	0	3	0	**5**	1	2	0	**6**	**11**	0	0	0	**0**	0	0	0	**1**	**1**	**6**
17:15	17:30	0	3	0	**6**	0	3	0	**7**	**13**	0	0	0	**0**	0	0	1	**1**	**1**	**7**
17:30	17:45	0	3	0	**6**	1	3	0	**7**	**13**	0	0	0	**0**	0	0	0	**1**	**1**	**7**
17:45	18:00	0	3	0	**4**	0	1	0	**6**	**10**	0	0	0	**0**	0	0	2	**2**	**2**	**6**
Total:	None	9	179	20	**438**	47	193	16	**503**	**941**	17	3	5	**51**	32	1	51	**154**	**205**	**573**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

KENNEVALE DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018 **WO No:** 37427

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	1	0	0	0	1
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	1	0	0	0	1
09:15	09:30	2	0	0	0	2
09:30	09:45	1	0	0	0	1
09:45	10:00	0	0	0	0	0
11:30	11:45	1	0	0	0	1
11:45	12:00	0	0	0	0	0
12:00	12:15	0	0	0	0	0
12:15	12:30	1	0	0	0	1
12:30	12:45	0	0	0	0	0
12:45	13:00	0	1	0	0	1
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	1	1	0	0	2
15:15	15:30	2	0	0	0	2
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	2	0	0	2
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		10	4	0	0	14

Transportation Services - Traffic Services

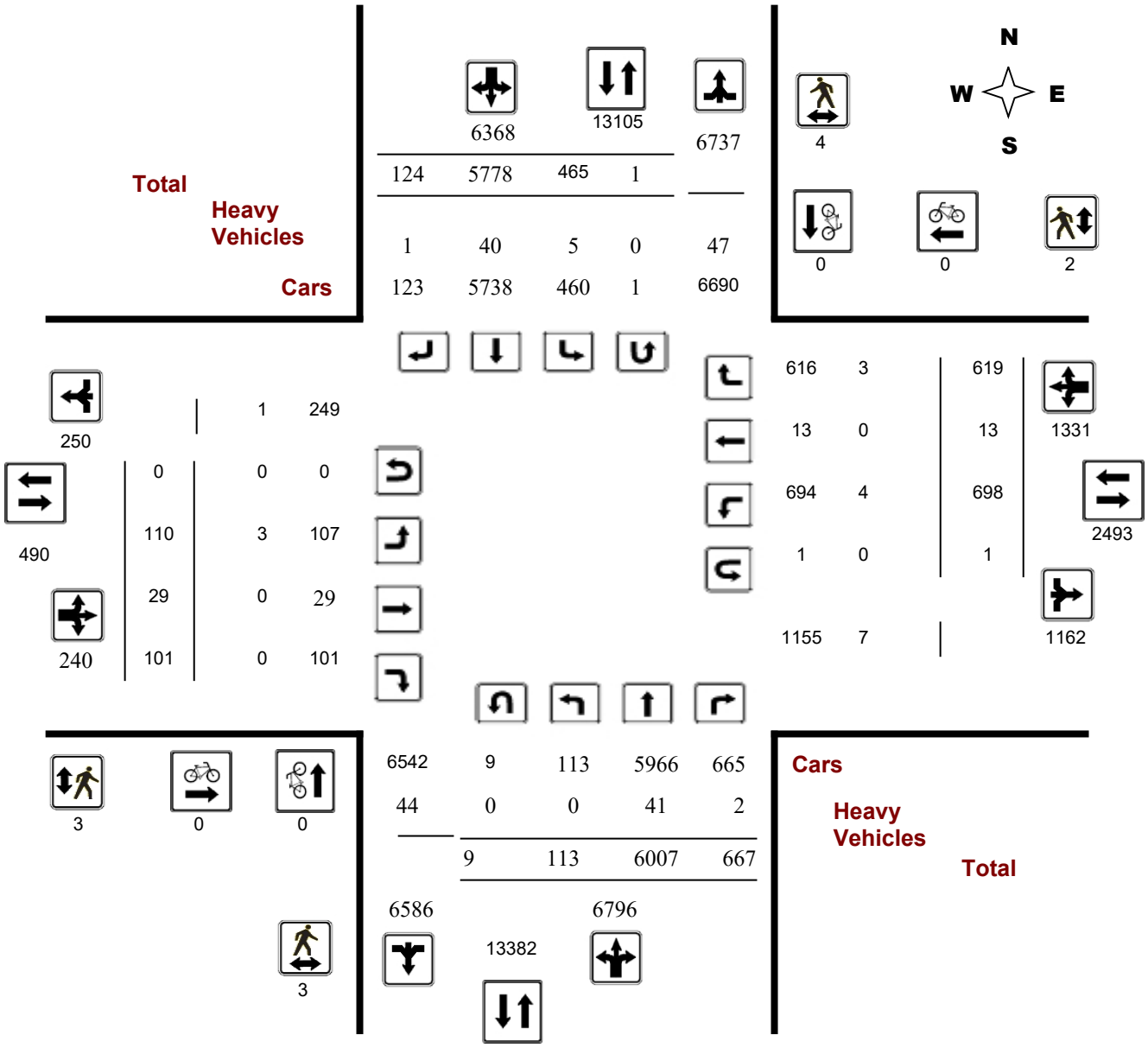
Turning Movement Count - Study Results

KENNEVALE DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018
Start Time: 07:00

WO No: 37464
Device: Miovision

Full Study Diagram



Transportation Services - Traffic Services

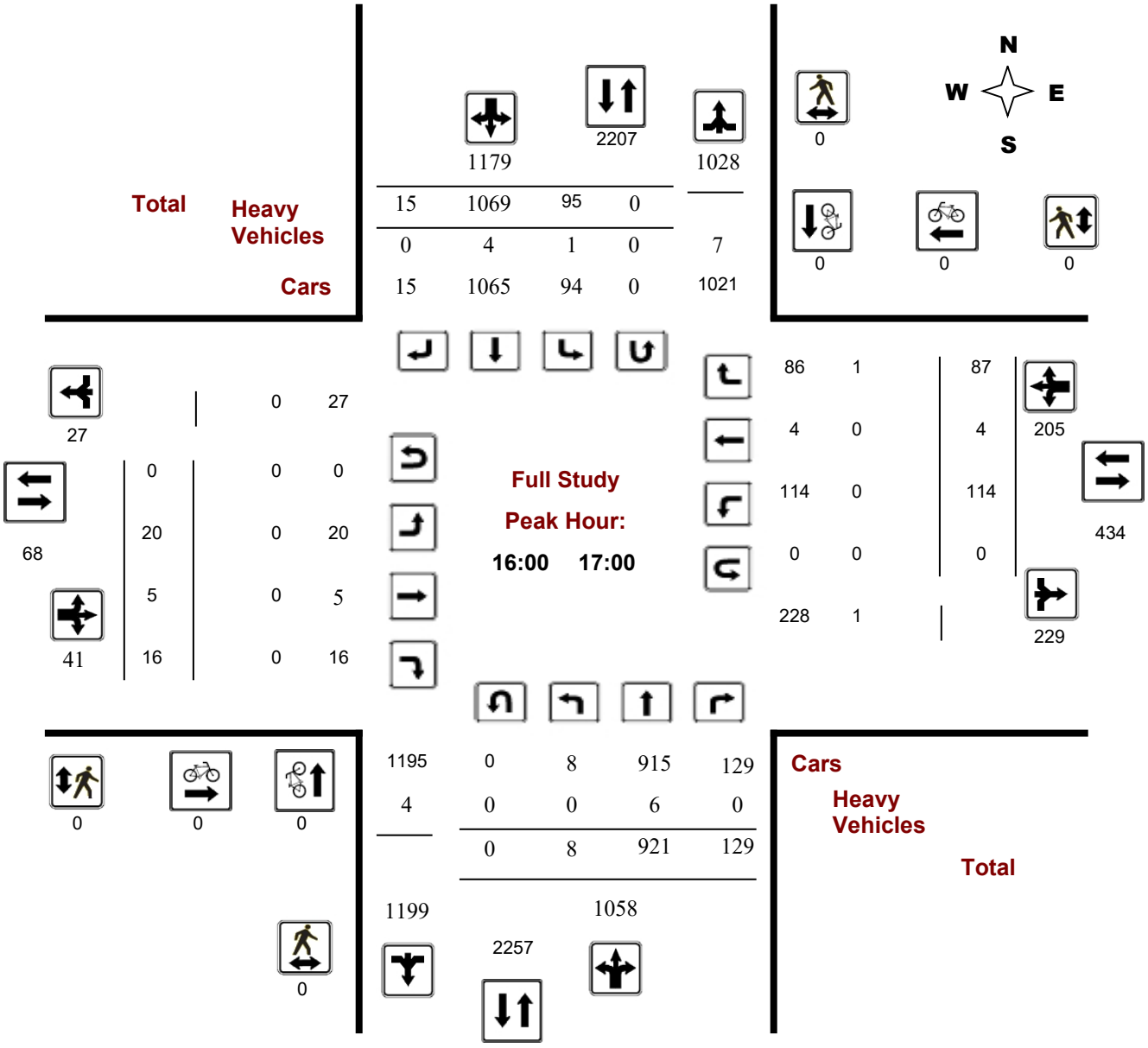
Turning Movement Count - Study Results

KENNEVALE DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018 **WO No:** 37464

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

Full Study Peak Hour Diagram



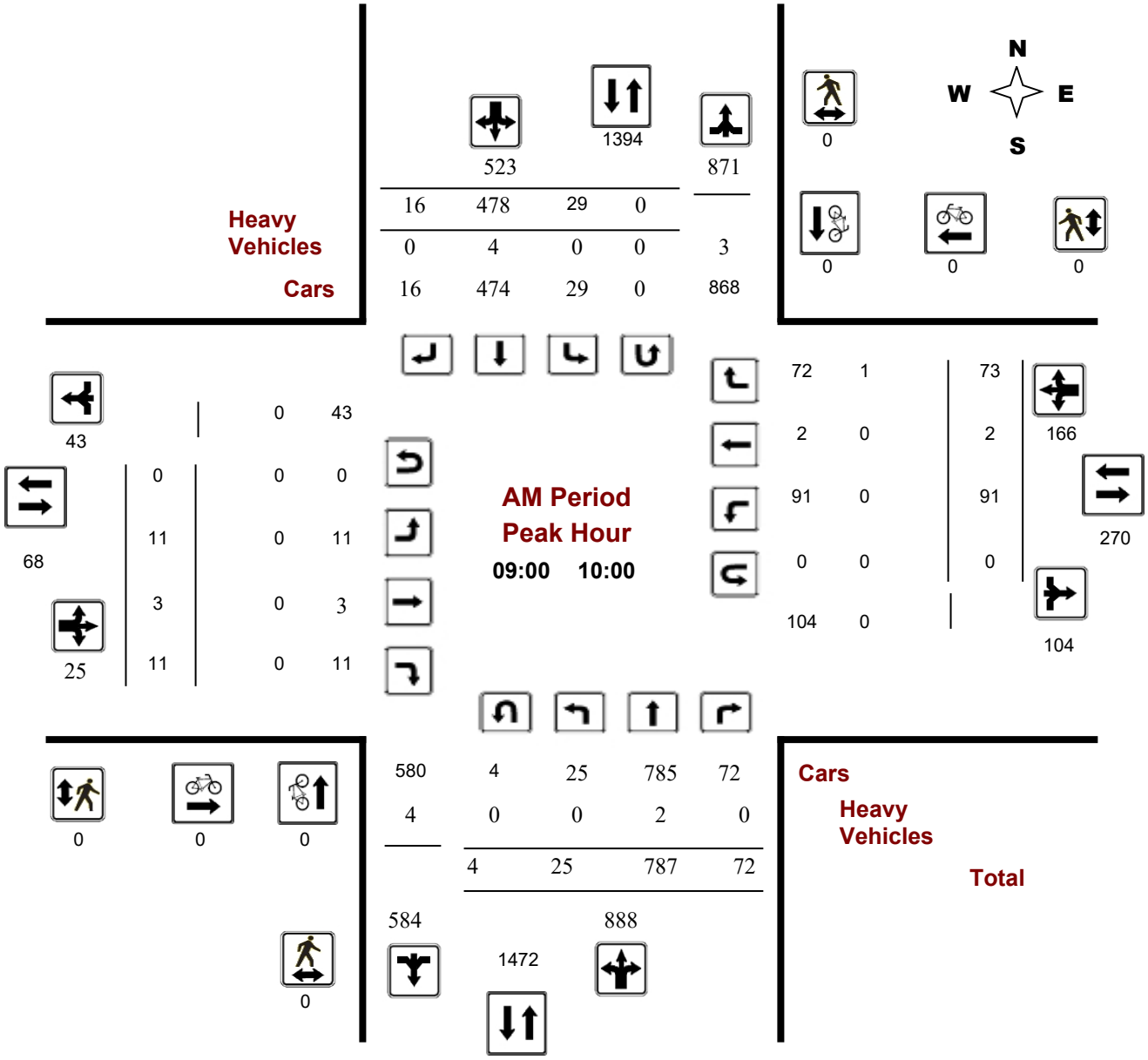
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

KENNEVALE DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018 **WO No:** 37464

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



Comments

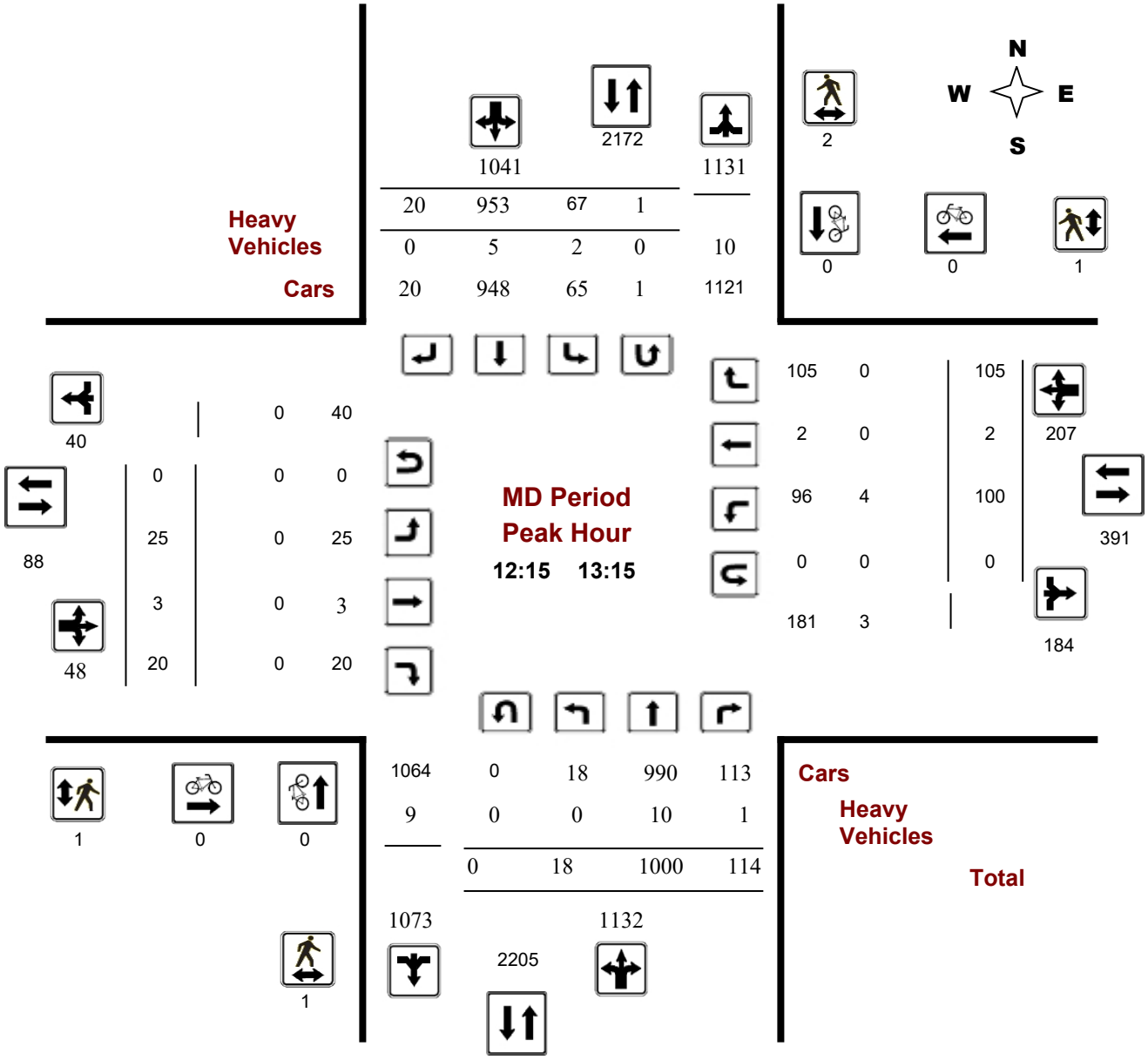
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

KENNEVALE DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018 **WO No:** 37464

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



Comments

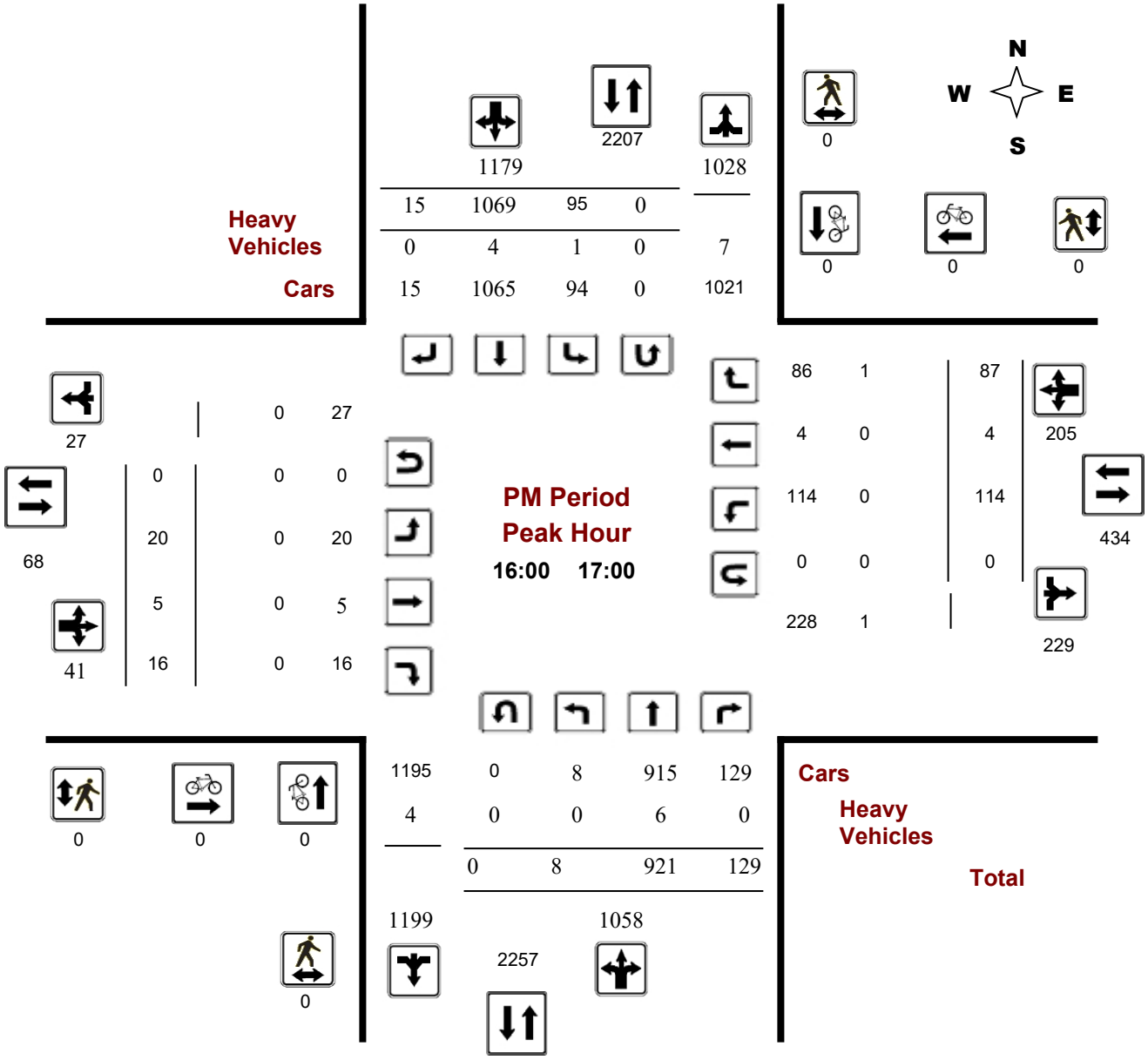
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

KENNEVALE DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018 **WO No:** 37464

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



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

KENNEVALE DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018 **WO No:** 37464

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

Full Study Summary (8 HR Standard)

Survey Date: Saturday, January 20, 2018

Total Observed U-Turns

Northbound: 9 Southbound: 1

Eastbound: 0 Westbound: 1

AADT Factor

1.20

	Northbound				Southbound					Eastbound				Westbound					
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00 08:00	5	213	17	**235**	13	129	8	**150**	**385**	2	1	0	**3**	26	1	24	**51**	**54**	**439**
08:00 09:00	15	458	46	**519**	25	261	17	**303**	**822**	4	1	2	**7**	60	0	56	**116**	**123**	**945**
09:00 10:00	25	787	72	**884**	29	478	16	**523**	**1407**	11	3	11	**25**	91	2	73	**166**	**191**	**1598**
11:30 12:30	22	927	113	**1062**	77	890	21	**988**	**2050**	22	6	24	**52**	106	2	105	**213**	**265**	**2315**
12:30 13:30	19	996	107	**1122**	74	961	15	**1050**	**2172**	21	3	13	**37**	110	2	95	**207**	**244**	**2416**
15:00 16:00	14	949	100	**1063**	64	1058	22	**1144**	**2207**	13	7	17	**37**	111	1	81	**193**	**230**	**2437**
16:00 17:00	8	921	129	**1058**	95	1069	15	**1179**	**2237**	20	5	16	**41**	114	4	87	**205**	**246**	**2483**
17:00 18:00	5	756	83	**844**	88	932	10	**1030**	**1874**	17	3	18	**38**	80	1	98	**179**	**217**	**2091**
Sub Total	113	6007	667	**6787**	465	5778	124	**6367**	**13154**	110	29	101	**240**	698	13	619	**1330**	**1570**	**14724**
U Turns	9			**9**	1			**1**	**10**	**0**			**0**	1			**1**	**1**	**11**
Total	122	6007	667	**6796**	466	5778	124	**6368**	**13164**	110	29	101	**240**	699	13	619	**1331**	**1571**	**14735**
EQ 12Hr	170	8350	927	**9447**	648	8031	172	**8851**	**18298**	153	40	140	**333**	972	18	860	**1850**	**2183**	**20481**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	204	10020	1112	**11336**	778	9637	206	**10621**	**21957**	184	48	168	**400**	1166	22	1032	**2220**	**2620**	**24577**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**1.20**					
AVG 24Hr	267	13126	1457	**14850**	1019	12624	270	**13913**	**28763**	241	63	220	**524**	1527	29	1352	**2908**	**3432**	**32195**
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

KENNEVALE DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018 **WO No:** 37464

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	38	2	40	0	21	2	23	**63**	1	0	0	1	4	1	6	11	**12**	**75**
07:15	07:30	0	42	8	50	5	28	4	37	**87**	0	1	0	1	5	0	9	14	**15**	**102**
07:30	07:45	3	49	1	53	4	39	2	45	**98**	0	0	0	0	4	0	6	10	**10**	**108**
07:45	08:00	3	84	6	93	4	41	0	45	**138**	1	0	0	1	13	0	3	16	**17**	**155**
08:00	08:15	1	79	6	86	5	47	4	56	**142**	2	0	1	3	11	0	2	13	**16**	**158**
08:15	08:30	4	104	10	118	4	65	2	71	**189**	0	1	0	1	18	0	10	28	**29**	**218**
08:30	08:45	3	123	13	139	6	70	5	81	**220**	1	0	0	1	18	0	22	40	**41**	**261**
08:45	09:00	8	152	17	177	10	79	6	95	**272**	1	0	1	2	13	0	22	35	**37**	**309**
09:00	09:15	7	154	10	171	4	83	4	91	**262**	1	0	3	4	12	2	18	32	**36**	**298**
09:15	09:30	6	184	21	211	8	113	2	123	**334**	3	1	1	5	25	0	17	42	**47**	**381**
09:30	09:45	6	221	18	245	4	140	2	146	**391**	1	1	2	4	21	0	19	40	**44**	**435**
09:45	10:00	10	228	23	261	13	142	8	163	**424**	6	1	5	12	33	0	19	52	**64**	**488**
11:30	11:45	10	231	28	269	21	212	4	237	**506**	4	1	4	9	32	2	27	61	**70**	**576**
11:45	12:00	4	215	32	251	19	227	4	250	**501**	4	3	4	11	24	0	22	46	**57**	**558**
12:00	12:15	6	228	19	253	22	220	5	247	**500**	2	2	9	13	29	0	28	57	**70**	**570**
12:15	12:30	3	253	34	290	15	231	8	254	**544**	12	0	7	19	21	0	28	49	**68**	**612**
12:30	12:45	8	256	28	292	17	244	4	265	**557**	7	2	3	12	27	0	24	51	**63**	**620**
12:45	13:00	4	244	28	276	16	244	6	266	**542**	3	0	2	5	26	2	29	57	**62**	**604**
13:00	13:15	3	247	24	274	20	234	2	256	**530**	3	1	8	12	26	0	24	50	**62**	**592**
13:15	13:30	6	249	27	282	22	239	3	264	**546**	8	0	0	8	31	0	18	49	**57**	**603**
15:00	15:15	3	236	23	262	15	236	8	259	**521**	2	2	7	11	24	0	19	43	**54**	**575**
15:15	15:30	5	267	29	301	16	298	6	320	**621**	2	2	4	8	31	0	23	54	**62**	**683**
15:30	15:45	2	227	26	255	17	262	4	283	**538**	6	2	1	9	29	1	17	47	**56**	**594**
15:45	16:00	4	219	22	245	16	262	4	282	**527**	3	1	5	9	27	0	22	49	**58**	**585**
16:00	16:15	4	217	24	245	17	264	5	286	**531**	4	1	6	11	28	1	21	50	**61**	**592**
16:15	16:30	2	226	27	255	27	261	6	294	**549**	8	2	4	14	26	1	18	45	**59**	**608**
16:30	16:45	1	242	42	285	29	282	1	312	**597**	5	2	4	11	31	2	20	53	**64**	**661**
16:45	17:00	1	236	36	273	22	262	3	287	**560**	3	0	2	5	29	0	28	57	**62**	**622**
17:00	17:15	3	175	23	201	26	238	6	270	**471**	11	2	6	19	18	1	29	48	**67**	**538**
17:15	17:30	1	231	17	249	24	235	1	260	**509**	5	1	8	14	20	0	20	40	**54**	**563**
17:30	17:45	0	178	20	198	18	248	3	269	**467**	1	0	3	4	22	0	25	47	**51**	**518**
17:45	18:00	1	172	23	196	20	211	0	231	**427**	0	0	1	1	21	0	24	45	**46**	**473**
Total:		122	6007	667	6796	466	5778	124	6368	**13164**	110	29	101	240	699	13	619	1331	**13164**	**14,735**

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

KENNEVALE DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018 **WO No:** 37464

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	0	**0**	0	0	**0**	**0**
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	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		0	0	**0**	0	0	**0**	**0**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

KENNEVALE DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018 **WO No:** 37464

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	0	0	**0**	0	0	**0**	**0**
07:15 07:30	0	0	**0**	0	0	**0**	**0**
07:30 07:45	1	0	**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	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	2	**2**	2	0	**2**	**4**
12:00 12:15	0	0	**0**	0	1	**1**	**1**
12:15 12:30	0	0	**0**	0	0	**0**	**0**
12:30 12:45	0	1	**1**	0	0	**0**	**1**
12:45 13:00	0	0	**0**	0	0	**0**	**0**
13:00 13:15	1	1	**2**	1	1	**2**	**4**
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	1	0	**1**	0	0	**0**	**1**
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	4	**7**	3	2	**5**	**12**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

KENNEVALE DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018 **WO No:** 37464

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	0	0	**0**	0	0	0	**0**	**0**	1	0	0	**1**	0	0	0	**0**	**1**	**1**
07:15	07:30	0	0	0	**0**	0	1	0	**1**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
07:30	07:45	0	2	0	**2**	0	4	0	**4**	**6**	0	0	0	**0**	0	0	0	**0**	**0**	**6**
07:45	08:00	0	4	0	**4**	0	1	0	**1**	**5**	0	0	0	**0**	0	0	0	**0**	**0**	**5**
08:00	08:15	0	2	0	**2**	0	0	1	**1**	**3**	1	0	0	**1**	0	0	0	**0**	**1**	**4**
08:15	08:30	0	1	0	**1**	0	2	0	**2**	**3**	0	0	0	**0**	0	0	0	**0**	**0**	**3**
08:30	08:45	0	0	0	**0**	0	3	0	**3**	**3**	1	0	0	**1**	0	0	0	**0**	**1**	**4**
08:45	09:00	0	4	0	**4**	1	1	0	**2**	**6**	0	0	0	**0**	0	0	0	**0**	**0**	**6**
09:00	09:15	0	1	0	**1**	0	0	0	**0**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
09:15	09:30	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	1	**1**	**1**	**1**
09:30	09:45	0	0	0	**0**	0	1	0	**1**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
09:45	10:00	0	1	0	**1**	0	3	0	**3**	**4**	0	0	0	**0**	0	0	0	**0**	**0**	**4**
11:30	11:45	0	1	0	**1**	0	2	0	**2**	**3**	0	0	0	**0**	0	0	0	**0**	**0**	**3**
11:45	12:00	0	1	0	**1**	0	1	0	**1**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**2**
12:00	12:15	0	1	0	**1**	0	5	0	**5**	**6**	0	0	0	**0**	0	0	0	**0**	**0**	**6**
12:15	12:30	0	2	0	**2**	0	2	0	**2**	**4**	0	0	0	**0**	0	0	0	**0**	**0**	**4**
12:30	12:45	0	4	0	**4**	0	2	0	**2**	**6**	0	0	0	**0**	0	0	0	**0**	**0**	**6**
12:45	13:00	0	4	0	**4**	0	1	0	**1**	**5**	0	0	0	**0**	2	0	0	**2**	**2**	**7**
13:00	13:15	0	0	1	**1**	2	0	0	**2**	**3**	0	0	0	**0**	2	0	0	**2**	**2**	**5**
13:15	13:30	0	2	0	**2**	0	1	0	**1**	**3**	0	0	0	**0**	0	0	0	**0**	**0**	**3**
15:00	15:15	0	0	0	**0**	0	3	0	**3**	**3**	0	0	0	**0**	0	0	0	**0**	**0**	**3**
15:15	15:30	0	1	0	**1**	0	0	0	**0**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
15:30	15:45	0	0	0	**0**	0	1	0	**1**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
15:45	16:00	0	1	1	**2**	0	0	0	**0**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**2**
16:00	16:15	0	0	0	**0**	0	3	0	**3**	**3**	0	0	0	**0**	0	0	1	**1**	**1**	**4**
16:15	16:30	0	3	0	**3**	0	0	0	**0**	**3**	0	0	0	**0**	0	0	0	**0**	**0**	**3**
16:30	16:45	0	0	0	**0**	1	1	0	**2**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**2**
16:45	17:00	0	3	0	**3**	0	0	0	**0**	**3**	0	0	0	**0**	0	0	0	**0**	**0**	**3**
17:00	17:15	0	1	0	**1**	0	1	0	**1**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**2**
17:15	17:30	0	1	0	**1**	0	0	0	**0**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
17:30	17:45	0	0	0	**0**	1	1	0	**2**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**2**
17:45	18:00	0	1	0	**1**	0	0	0	**0**	**1**	0	0	0	**0**	0	0	1	**1**	**1**	**2**
Total:	None	0	41	2	**43**	5	40	1	**46**	**89**	3	0	0	**3**	4	0	3	**7**	**10**	**99**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

KENNEVALE DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018 **WO No:** 37464

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	1	0	0	0	**1**
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	1	0	0	0	**1**
09:00	09:15	1	0	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	3	0	0	0	**3**
11:30	11:45	1	0	0	0	**1**
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	1	0	0	**1**
13:00	13:15	0	0	0	0	**0**
13:15	13:30	2	0	0	0	**2**
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	1	**1**
17:30	17:45	0	0	0	0	**0**
17:45	18:00	0	0	0	0	**0**
Total		9	1	0	1	**11**

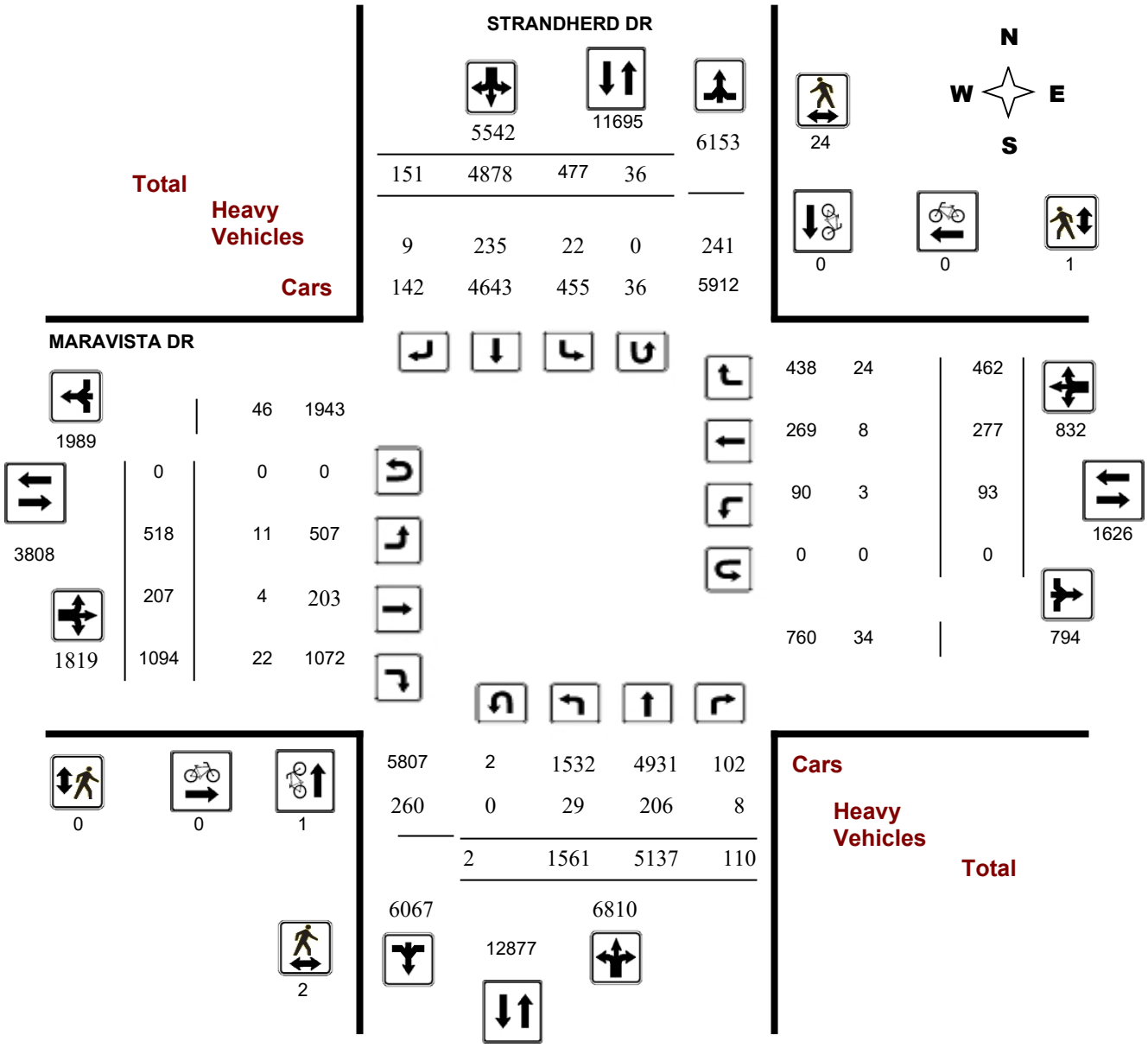
Transportation Services - Traffic Services

Turning Movement Count - Study Results

MARAVISTA DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018
Start Time: 07:00
WO No: 37426
Device: Miovision

Full Study Diagram



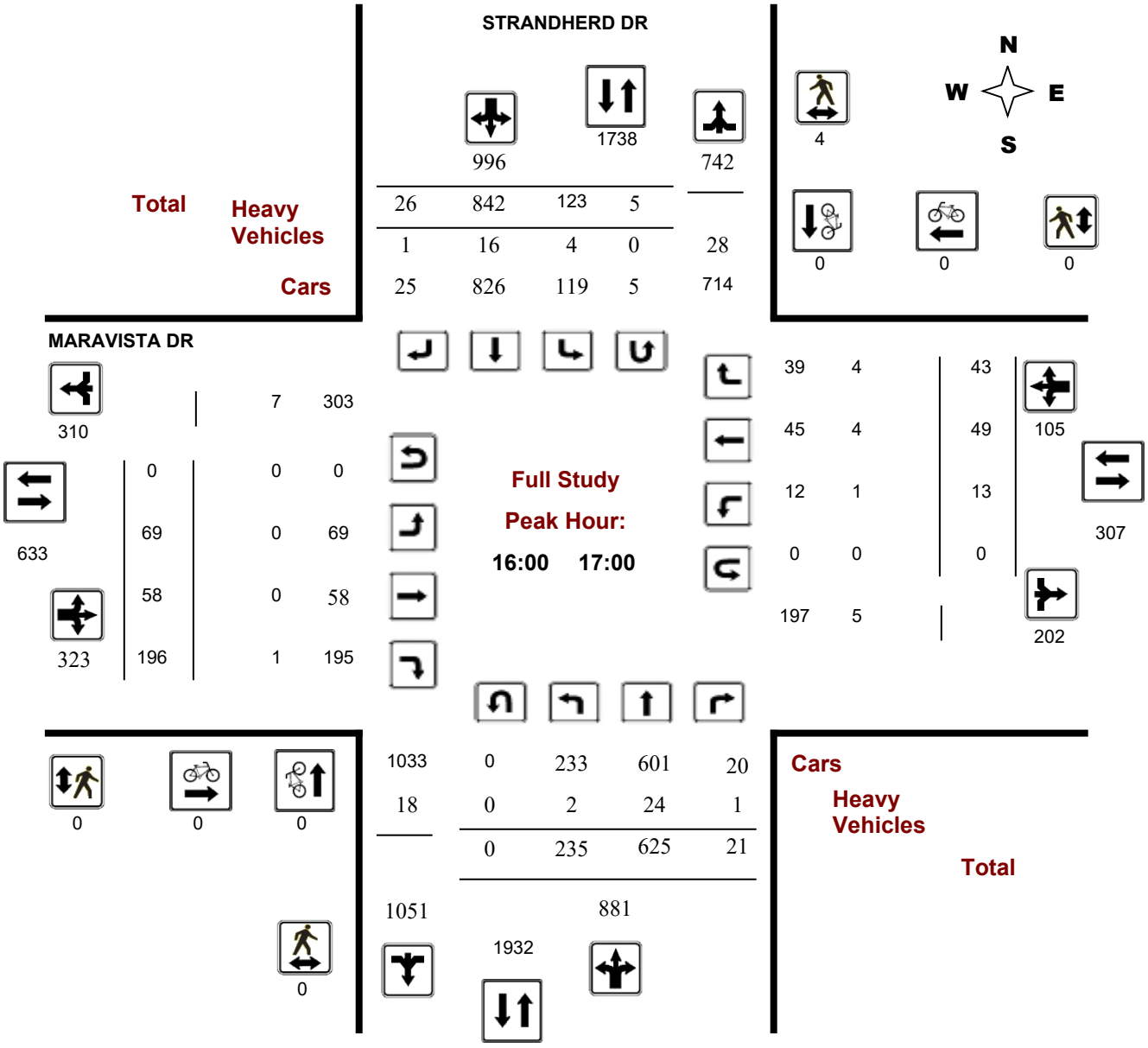
Transportation Services - Traffic Services

Turning Movement Count - Study Results

MARAVISTA DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018
Start Time: 07:00
WO No: 37426
Device: Miovision

Full Study Peak Hour Diagram



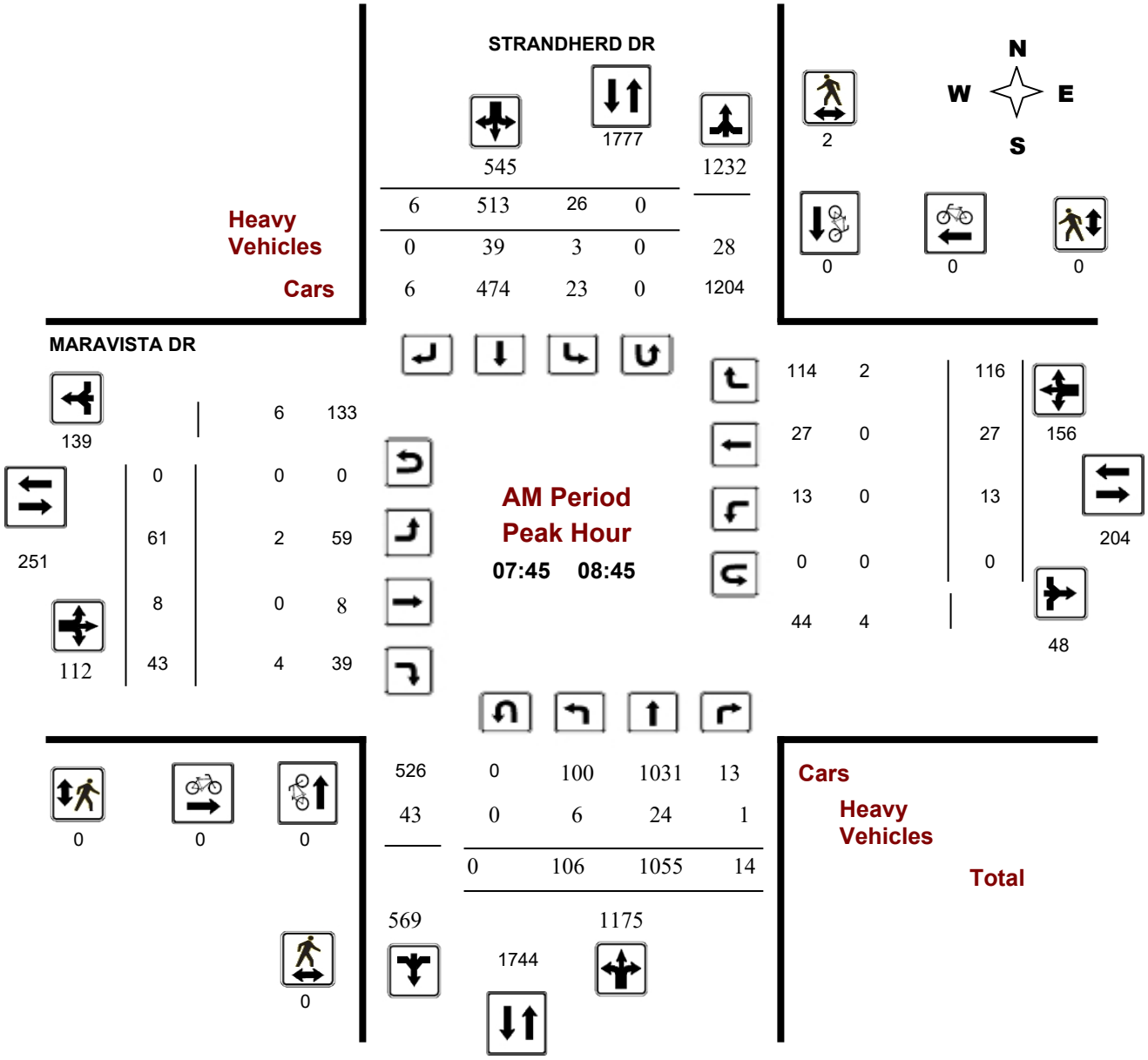
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

MARAVISTA DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018 **WO No:** 37426

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



Comments

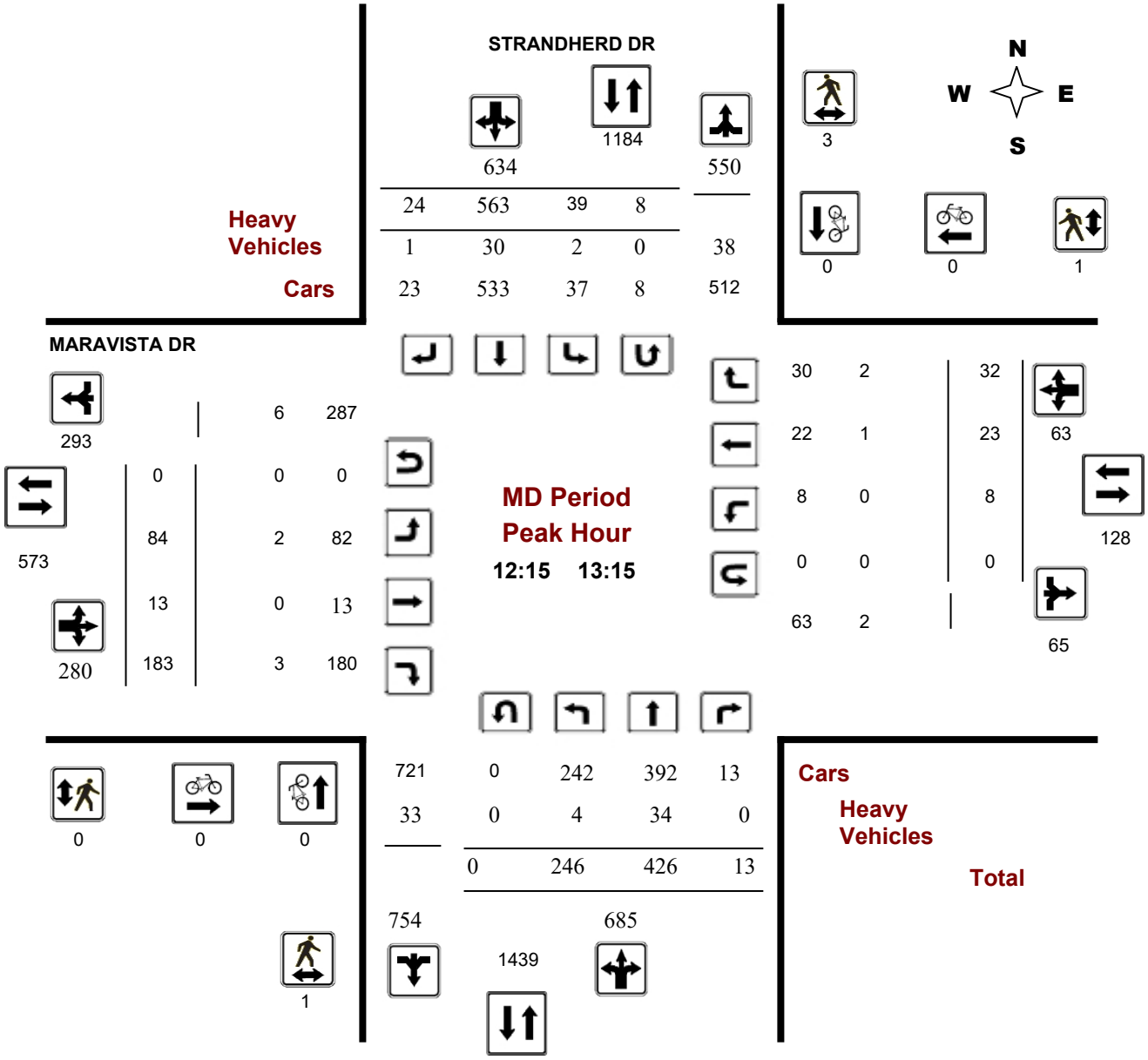
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

MARAVISTA DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018 **WO No:** 37426

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



Comments

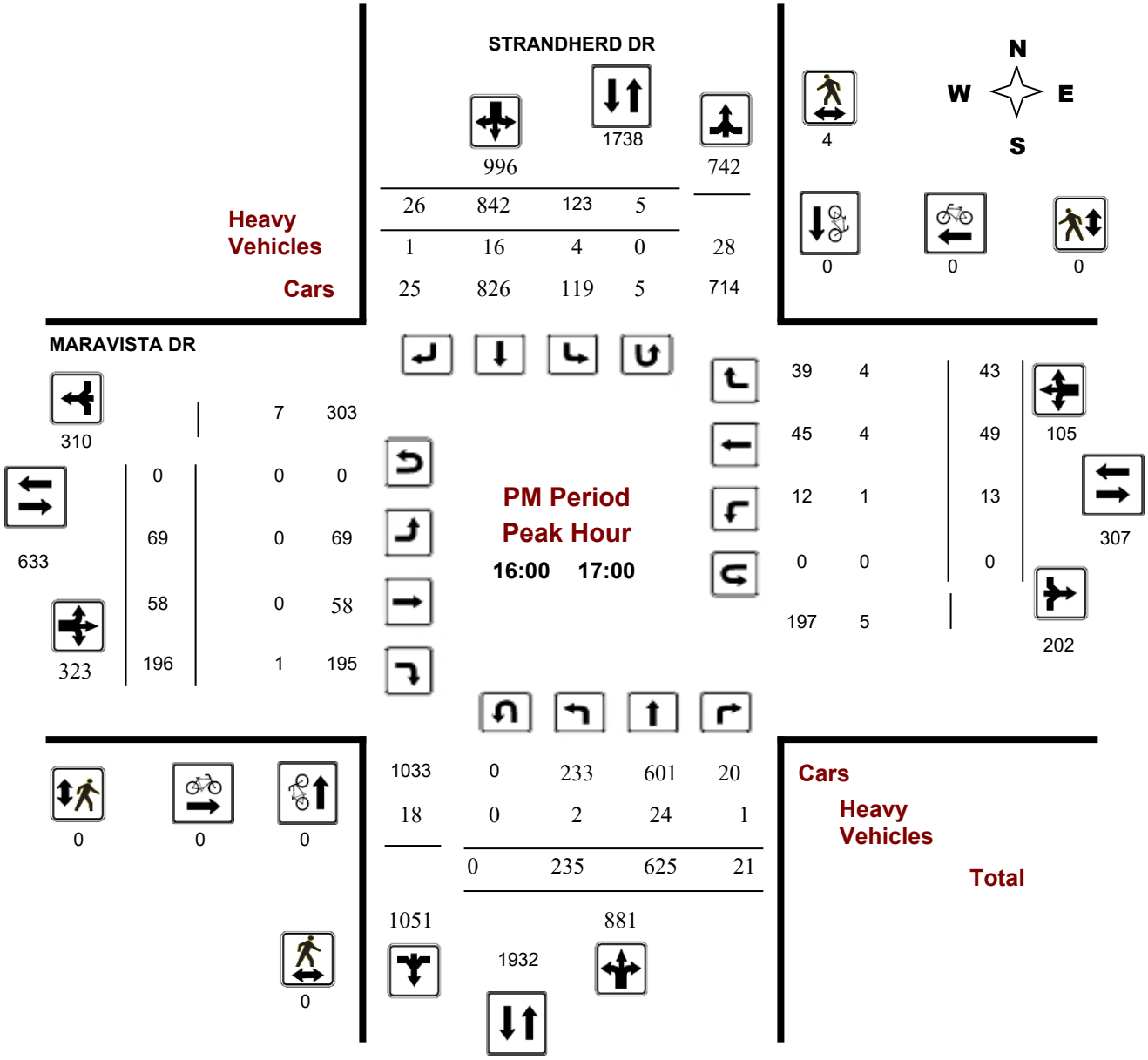
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

MARAVISTA DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018 **WO No:** 37426

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



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MARAVISTA DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018 **WO No:** 37426

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

Full Study Summary (8 HR Standard)

Survey Date: Thursday, January 18, 2018

Total Observed U-Turns

Northbound: 2 Southbound: 36

Eastbound: 0 Westbound: 0

AADT Factor

1.39

	STRANDHERD DR									MARAVISTA DR									
	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	95	937	9	**1041**	18	465	9	**492**	**1533**	52	7	28	**87**	7	22	110	**139**	**226**	**1759**
08:00 09:00	104	1034	15	**1153**	26	482	5	**513**	**1666**	59	9	49	**117**	11	26	104	**141**	**258**	**1924**
09:00 10:00	159	630	12	**801**	29	444	20	**493**	**1294**	52	7	59	**118**	9	31	72	**112**	**230**	**1524**
11:30 12:30	258	431	15	**704**	37	480	31	**548**	**1252**	83	18	165	**266**	17	29	35	**81**	**347**	**1599**
12:30 13:30	233	418	12	**663**	38	578	19	**635**	**1298**	72	12	183	**267**	8	24	28	**60**	**327**	**1625**
15:00 16:00	234	506	19	**759**	72	739	16	**827**	**1586**	68	40	216	**324**	18	40	30	**88**	**412**	**1998**
16:00 17:00	235	625	21	**881**	123	842	26	**991**	**1872**	69	58	196	**323**	13	49	43	**105**	**428**	**2300**
17:00 18:00	243	556	7	**806**	134	848	25	**1007**	**1813**	63	56	198	**317**	10	56	40	**106**	**423**	**2236**
Sub Total	1561	5137	110	**6808**	477	4878	151	**5506**	**12314**	518	207	1094	**1819**	93	277	462	**832**	**2651**	**14965**
U Turns				**2**				**36**	**38**				**0**				**0**	**0**	**38**
Total	1561	5137	110	**6810**	477	4878	151	**5542**	**12352**	518	207	1094	**1819**	93	277	462	**832**	**2651**	**15003**
EQ 12Hr	2170	7140	153	**9466**	663	6780	210	**7703**	**17169**	720	288	1521	**2528**	129	385	642	**1156**	**3685**	**20854**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	2170	7140	153	**9466**	663	6780	210	**7703**	**17169**	720	288	1521	**2528**	129	385	642	**1156**	**3685**	**20854**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**1**					
AVG 24Hr	2842	9354	200	**12400**	869	8882	275	**10091**	**22491**	943	377	1992	**3312**	169	504	841	**1515**	**4827**	**27318**
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

MARAVISTA DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018 **WO No:** 37426

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

Full Study 15 Minute Increments

		STRANDHERD DR									MARAVISTA DR									
		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	13	188	4	205	5	78	4	87	611	14	3	6	23	2	5	31	38	611	353
07:15	07:30	29	228	2	259	3	140	1	144	816	8	1	8	17	1	4	28	33	816	453
07:30	07:45	20	245	1	266	2	101	3	106	757	13	0	3	16	1	6	22	29	757	417
07:45	08:00	33	276	2	311	8	146	1	155	948	17	3	11	31	3	7	29	39	948	536
08:00	08:15	28	229	5	262	2	150	2	154	847	11	0	10	21	1	7	30	38	847	475
08:15	08:30	19	273	5	297	9	123	1	133	891	15	3	9	27	8	7	33	48	891	505
08:30	08:45	26	277	2	305	7	94	2	103	835	18	2	13	33	1	6	24	31	835	472
08:45	09:00	31	255	3	290	8	115	0	124	836	15	4	17	36	1	6	17	24	836	474
09:00	09:15	23	186	5	214	7	83	3	94	629	13	3	12	28	4	9	22	35	629	371
09:15	09:30	38	176	3	217	9	126	6	142	714	13	1	18	32	3	5	18	26	714	417
09:30	09:45	55	142	0	197	2	117	4	124	630	9	0	16	25	1	7	23	31	630	377
09:45	10:00	43	126	4	173	11	118	7	138	597	17	3	13	33	1	10	9	20	597	364
11:30	11:45	56	113	5	174	12	95	7	114	564	15	4	42	61	2	8	9	19	564	368
11:45	12:00	72	100	3	176	9	136	8	155	638	16	1	41	58	1	2	10	13	638	402
12:00	12:15	57	114	2	173	6	119	8	135	620	21	9	40	70	9	10	7	26	620	404
12:15	12:30	73	104	5	182	10	130	8	151	657	31	4	42	77	5	9	9	23	657	433
12:30	12:45	58	100	3	161	9	121	6	138	596	18	2	49	69	1	5	6	12	596	380
12:45	13:00	55	112	3	170	10	168	5	185	719	22	5	50	77	1	1	9	11	719	443
13:00	13:15	60	110	2	172	10	144	5	160	651	13	2	42	57	1	8	8	17	651	406
13:15	13:30	60	96	4	160	9	145	3	159	633	19	3	42	64	5	10	5	20	633	403
15:00	15:15	66	125	1	192	10	167	6	183	747	14	9	55	78	6	9	5	20	747	473
15:15	15:30	71	148	6	225	14	185	5	204	845	17	14	54	85	2	11	10	23	845	537
15:30	15:45	55	126	10	191	23	196	2	223	821	18	7	53	78	5	10	7	22	821	514
15:45	16:00	42	107	2	151	25	191	3	221	758	19	10	54	83	5	10	8	23	758	478
16:00	16:15	60	173	5	238	22	199	7	229	923	12	16	54	82	7	13	10	30	923	579
16:15	16:30	58	152	2	212	35	229	6	271	943	22	11	44	77	2	13	10	25	943	585
16:30	16:45	47	155	3	205	33	223	4	261	922	19	18	49	86	0	12	9	21	922	573
16:45	17:00	70	145	11	226	33	191	9	235	882	16	13	49	78	4	11	14	29	882	568
17:00	17:15	64	120	5	189	28	224	5	261	874	12	15	52	79	2	17	10	29	874	558
17:15	17:30	51	146	0	197	38	223	5	268	905	15	13	44	72	4	8	6	18	905	555
17:30	17:45	51	168	1	220	33	222	9	265	959	15	17	55	87	1	20	12	33	959	605
17:45	18:00	77	122	1	200	35	179	6	220	804	21	11	47	79	3	11	12	26	804	525
Total:		1561	5137	110	6810	477	4878	151	5542	24572	518	207	1094	1819	93	277	462	832	24572	15,003

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MARAVISTA DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018 **WO No:** 37426

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

Full Study Cyclist Volume

Time Period		STRANDHERD DR			MARAVISTA DR			
		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	0	0	0	0	0	0	0
08:00	08:15	0	0	0	0	0	0	0
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	1	0	1	0	0	0	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	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		1	0	**1**	0	0	0	1

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MARAVISTA DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018 **WO No:** 37426

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

Full Study Pedestrian Volume

	STRANDHERD DR			MARAVISTA DR			
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	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	0	1	**1**	0	0	**0**	**1**
08:00 08:15	0	0	**0**	0	0	**0**	**0**
08:15 08:30	0	0	**0**	0	0	**0**	**0**
08:30 08:45	0	1	**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	1	**1**	0	0	**0**	**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	2	**2**	0	0	**0**	**2**
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	1	3	**4**	0	1	**1**	**5**
13:15 13:30	0	1	**1**	0	0	**0**	**1**
15:00 15:15	1	2	**3**	0	0	**0**	**3**
15:15 15:30	0	0	**0**	0	0	**0**	**0**
15:30 15:45	0	1	**1**	0	0	**0**	**1**
15:45 16:00	0	4	**4**	0	0	**0**	**4**
16:00 16:15	0	0	**0**	0	0	**0**	**0**
16:15 16:30	0	2	**2**	0	0	**0**	**2**
16:30 16:45	0	1	**1**	0	0	**0**	**1**
16:45 17:00	0	1	**1**	0	0	**0**	**1**
17:00 17:15	0	3	**3**	0	0	**0**	**3**
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	1	**1**	0	0	**0**	**1**
Total	2	24	**26**	0	1	**1**	**27**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MARAVISTA DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018 **WO No:** 37426

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

Full Study Heavy Vehicles

		STRANDHERD DR									MARAVISTA DR									
		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	1	0	**6**	2	5	1	**9**	**15**	0	2	0	**3**	0	0	0	**4**	**7**	**11**
07:15	07:30	2	2	1	**15**	1	9	0	**13**	**28**	0	1	1	**4**	0	0	1	**4**	**8**	**18**
07:30	07:45	0	3	0	**10**	0	7	0	**11**	**21**	1	0	0	**1**	0	0	0	**0**	**1**	**11**
07:45	08:00	2	2	0	**12**	2	7	0	**13**	**25**	1	0	1	**4**	0	0	1	**3**	**7**	**16**
08:00	08:15	1	5	1	**18**	0	11	0	**17**	**35**	1	0	0	**2**	0	0	0	**1**	**3**	**19**
08:15	08:30	1	13	0	**22**	1	7	0	**22**	**44**	0	0	1	**2**	0	0	1	**2**	**4**	**24**
08:30	08:45	2	4	0	**22**	0	14	0	**18**	**40**	0	0	2	**4**	0	0	0	**0**	**4**	**22**
08:45	09:00	1	13	0	**21**	1	6	0	**24**	**45**	2	0	1	**4**	0	0	2	**3**	**7**	**26**
09:00	09:15	1	11	1	**25**	0	12	0	**24**	**49**	1	0	0	**2**	0	0	0	**1**	**3**	**26**
09:15	09:30	1	9	0	**28**	1	16	0	**26**	**54**	0	0	1	**2**	1	0	0	**2**	**4**	**29**
09:30	09:45	0	11	0	**28**	0	16	0	**27**	**55**	0	0	1	**1**	0	0	0	**0**	**1**	**28**
09:45	10:00	2	11	1	**22**	1	7	0	**20**	**42**	0	0	1	**3**	0	0	1	**3**	**6**	**24**
11:30	11:45	0	10	0	**15**	0	5	0	**17**	**32**	2	0	0	**3**	0	1	0	**1**	**4**	**18**
11:45	12:00	2	10	0	**27**	1	11	1	**25**	**52**	0	0	3	**6**	1	0	2	**4**	**10**	**31**
12:00	12:15	0	7	0	**18**	0	11	0	**18**	**36**	0	0	0	**0**	0	0	0	**0**	**0**	**18**
12:15	12:30	2	10	0	**17**	1	4	0	**16**	**33**	0	0	1	**3**	0	0	1	**2**	**5**	**19**
12:30	12:45	0	9	0	**18**	0	8	1	**18**	**36**	0	0	1	**2**	0	0	0	**0**	**2**	**19**
12:45	13:00	2	5	0	**19**	1	11	0	**18**	**37**	0	0	1	**3**	0	0	1	**2**	**5**	**21**
13:00	13:15	0	10	0	**17**	0	7	0	**19**	**36**	2	0	0	**3**	0	1	0	**1**	**4**	**20**
13:15	13:30	1	5	0	**18**	2	11	0	**19**	**37**	0	0	1	**2**	0	0	1	**3**	**5**	**21**
15:00	15:15	1	9	0	**18**	0	8	0	**17**	**35**	0	0	0	**1**	0	0	0	**0**	**1**	**18**
15:15	15:30	1	7	0	**13**	1	4	1	**16**	**29**	1	0	1	**4**	0	0	2	**3**	**7**	**18**
15:30	15:45	1	5	2	**12**	0	4	0	**9**	**21**	0	0	0	**1**	0	0	0	**2**	**3**	**12**
15:45	16:00	1	2	1	**15**	1	9	1	**14**	**29**	0	0	2	**5**	0	1	1	**4**	**9**	**19**
16:00	16:15	0	9	1	**17**	1	6	0	**16**	**33**	0	0	0	**1**	1	1	0	**4**	**5**	**19**
16:15	16:30	1	5	0	**10**	1	4	0	**11**	**21**	0	0	0	**3**	0	2	1	**4**	**7**	**14**
16:30	16:45	0	4	0	**8**	1	3	0	**8**	**16**	0	0	1	**2**	0	1	0	**2**	**4**	**10**
16:45	17:00	1	6	0	**10**	1	3	1	**14**	**24**	0	0	0	**2**	0	0	3	**4**	**6**	**15**
17:00	17:15	0	2	0	**5**	0	2	0	**7**	**12**	0	1	1	**2**	0	0	3	**4**	**6**	**9**
17:15	17:30	1	2	0	**6**	1	3	1	**8**	**14**	0	0	0	**2**	0	0	1	**2**	**4**	**9**
17:30	17:45	0	2	0	**6**	0	3	1	**7**	**13**	0	0	1	**2**	0	0	1	**1**	**3**	**8**
17:45	18:00	2	2	0	**5**	1	1	1	**6**	**11**	0	0	0	**4**	0	1	1	**3**	**7**	**9**
Total:	None	29	206	8	**503**	22	235	9	**507**	**1010**	11	4	22	**83**	3	8	24	**69**	**152**	**581**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MARAVISTA DR @ STRANDHERD DR

Survey Date: Thursday, January 18, 2018 **WO No:** 37426

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

Full Study 15 Minute U-Turn Total

Time Period		STRANDHERD DR		MARAVISTA DR		
		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	1	1	0	0	2
09:00	09:15	0	1	0	0	1
09:15	09:30	0	1	0	0	1
09:30	09:45	0	1	0	0	1
09:45	10:00	0	2	0	0	2
11:30	11:45	0	0	0	0	0
11:45	12:00	1	2	0	0	3
12:00	12:15	0	2	0	0	2
12:15	12:30	0	3	0	0	3
12:30	12:45	0	2	0	0	2
12:45	13:00	0	2	0	0	2
13:00	13:15	0	1	0	0	1
13:15	13:30	0	2	0	0	2
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	0	2	0	0	2
15:45	16:00	0	2	0	0	2
16:00	16:15	0	1	0	0	1
16:15	16:30	0	1	0	0	1
16:30	16:45	0	1	0	0	1
16:45	17:00	0	2	0	0	2
17:00	17:15	0	4	0	0	4
17:15	17:30	0	2	0	0	2
17:30	17:45	0	1	0	0	1
17:45	18:00	0	0	0	0	0
Total		2	36	0	0	38

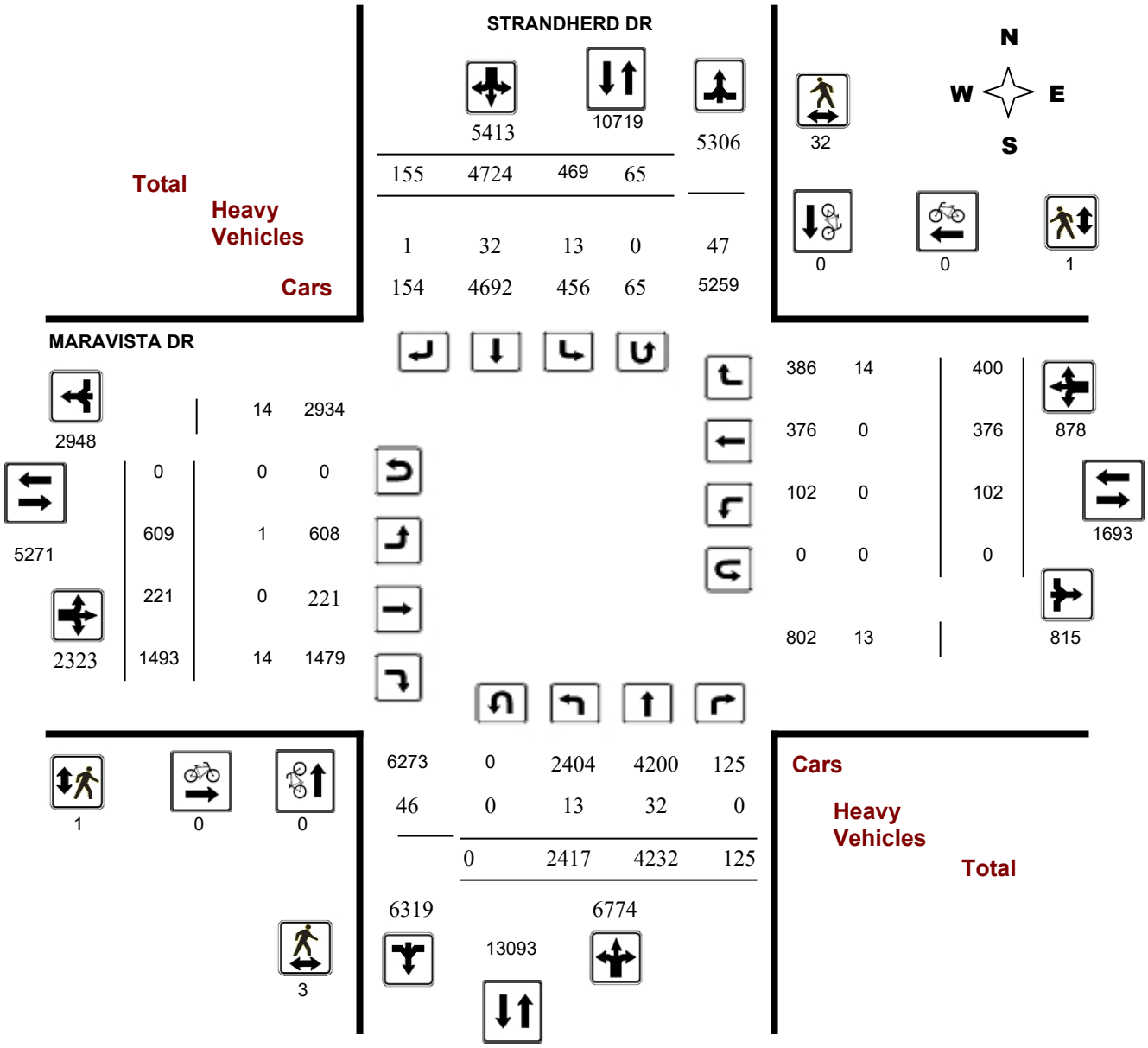
Transportation Services - Traffic Services

Turning Movement Count - Study Results

MARAVISTA DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018
Start Time: 07:00
WO No: 37462
Device: Miovision

Full Study Diagram



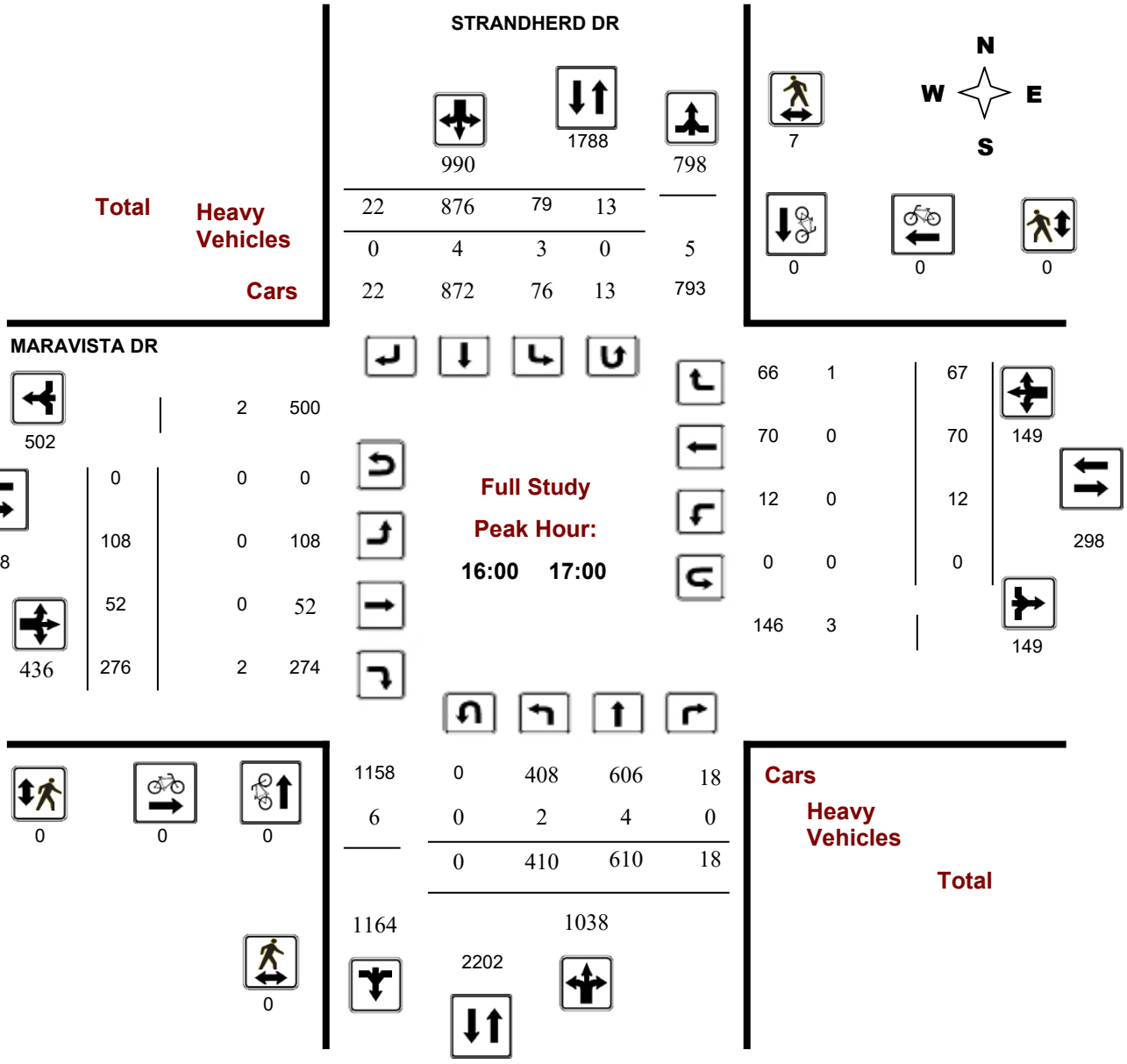
Transportation Services - Traffic Services

Turning Movement Count - Study Results

MARAVISTA DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018
Start Time: 07:00
WO No: 37462
Device: Miovision

Full Study Peak Hour Diagram



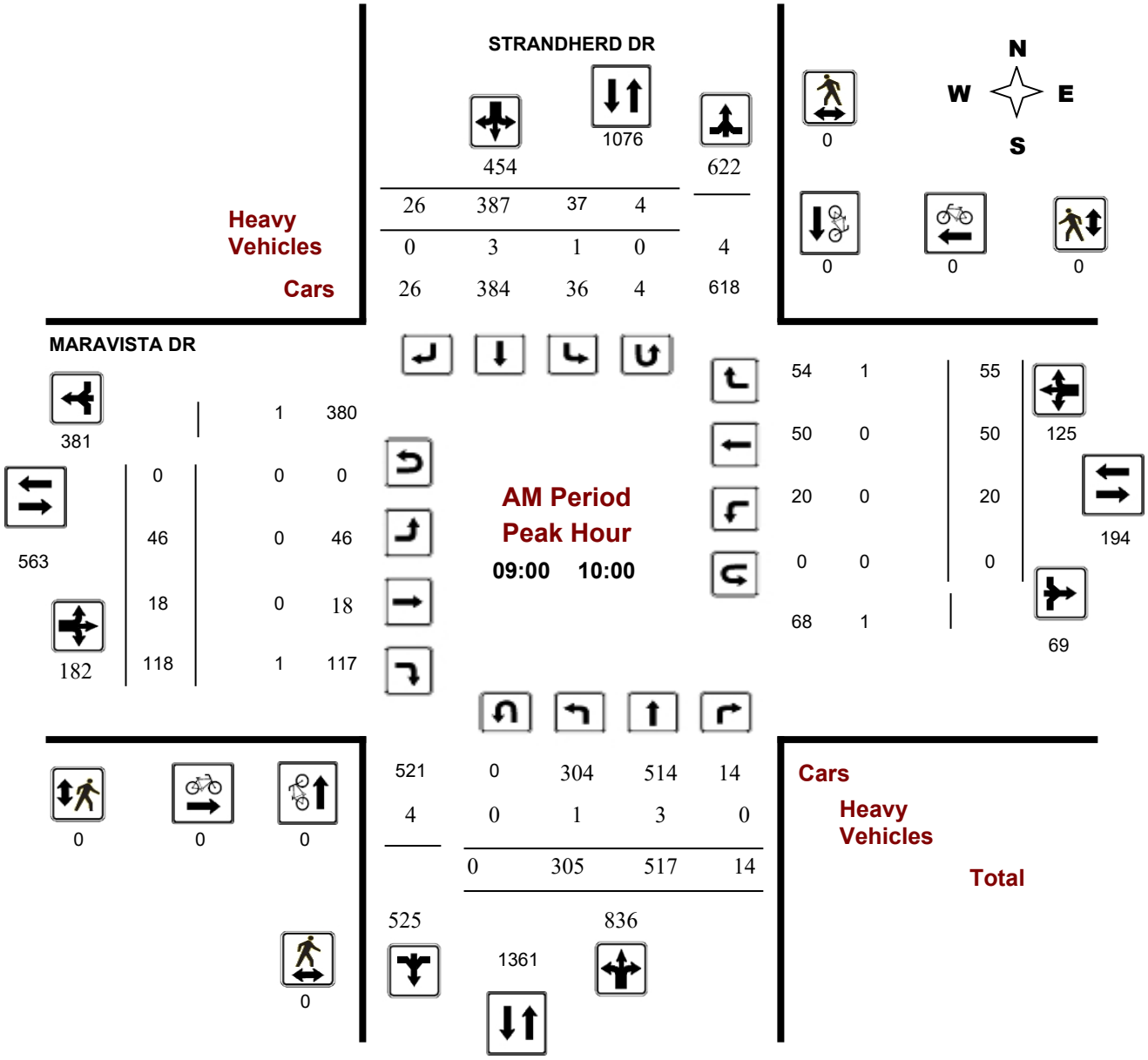
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

MARAVISTA DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018 **WO No:** 37462

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



Comments

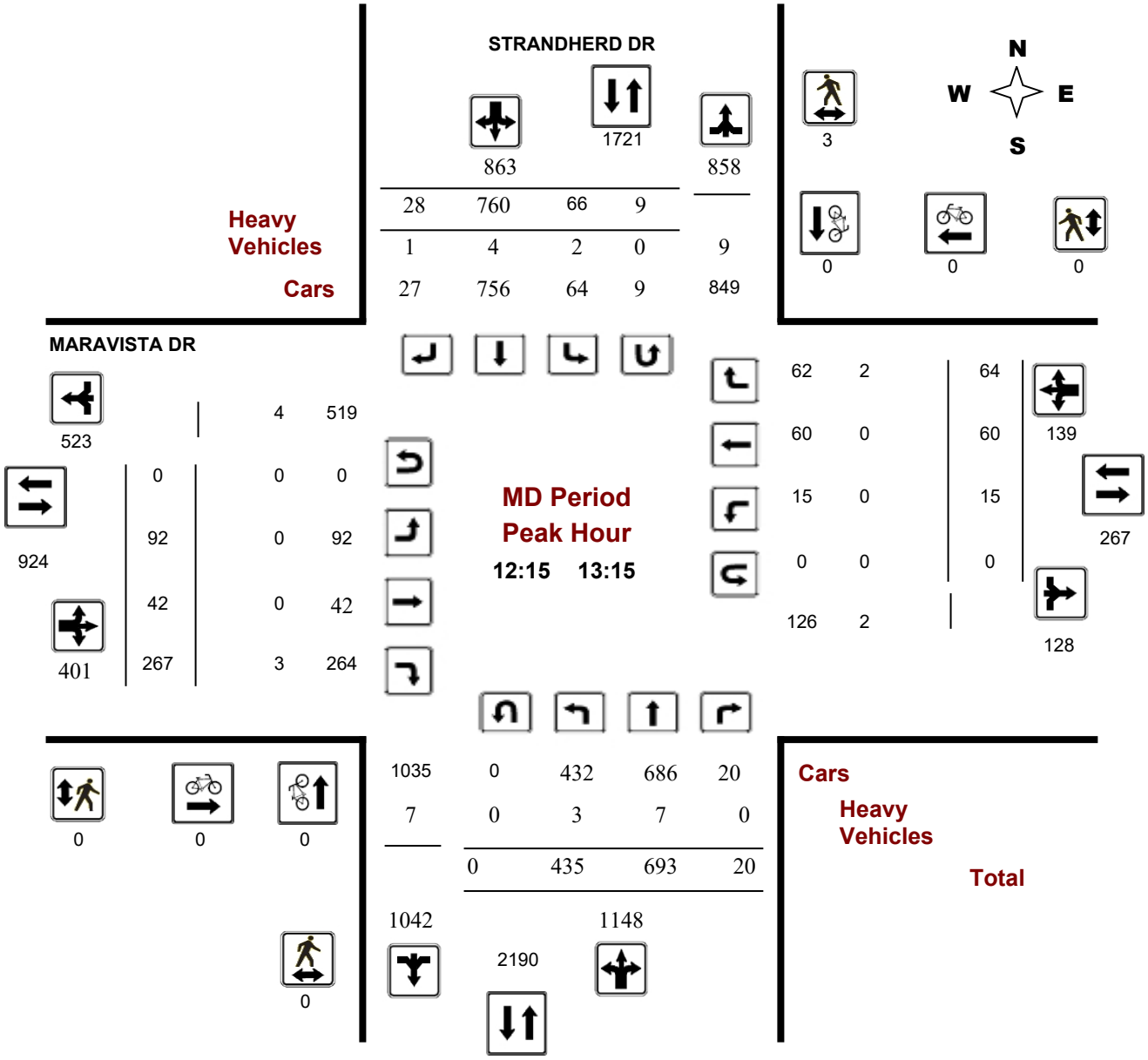
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

MARAVISTA DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018 **WO No:** 37462

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



Comments

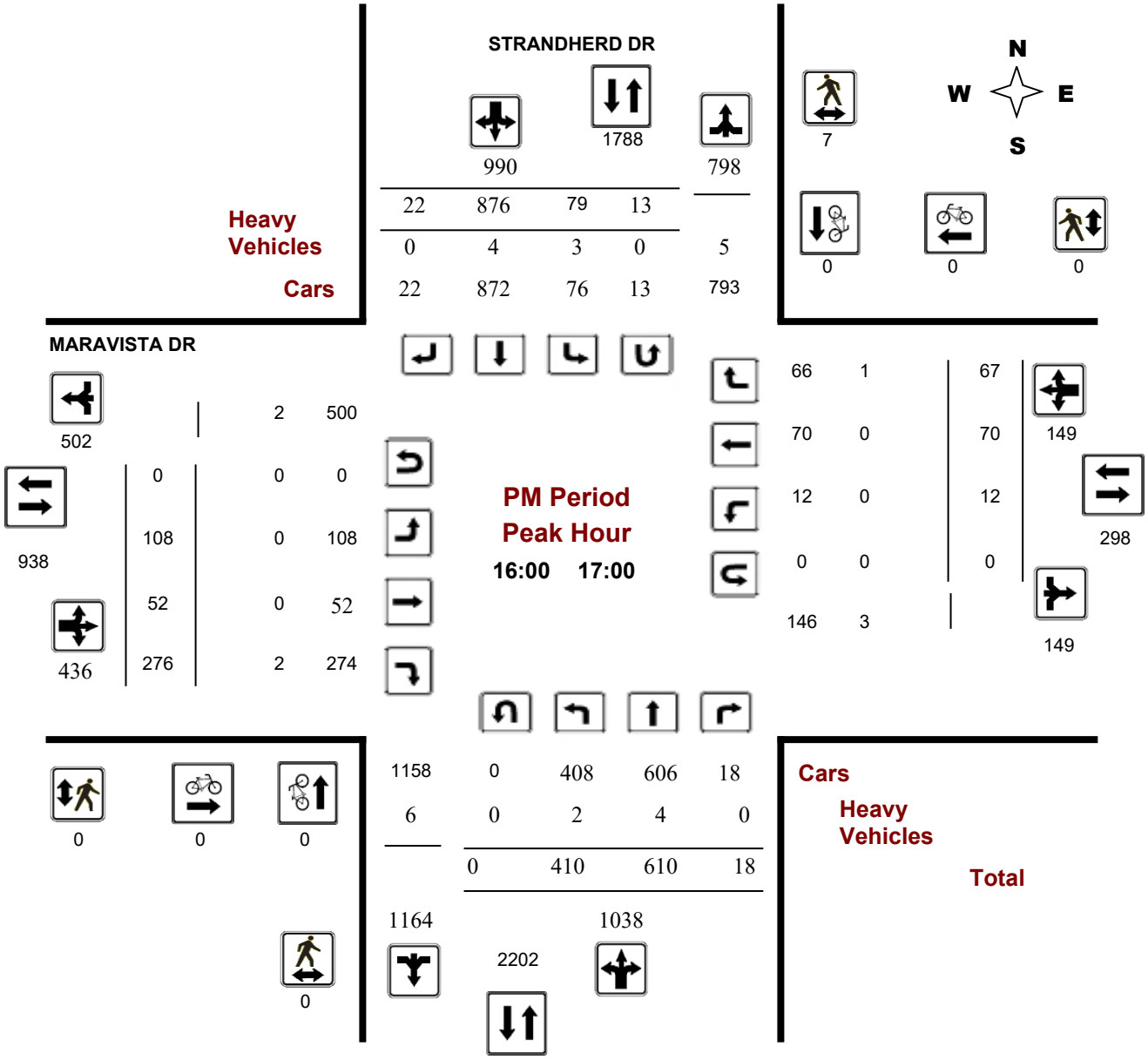
Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

MARAVISTA DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018 **WO No:** 37462

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



Comments

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MARAVISTA DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018 **WO No:** 37462

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

Full Study Summary (8 HR Standard)

Survey Date: Saturday, January 20, 2018

Total Observed U-Turns

Northbound: 0 Southbound: 65

Eastbound: 0 Westbound: 0

AADT Factor

1.20

	STRANDHERD DR									MARAVISTA DR									
	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	47	192	2	**241**	12	123	2	**137**	**378**	21	1	23	**45**	2	20	21	**43**	**88**	**466**
08:00 09:00	129	363	4	**496**	12	243	11	**266**	**762**	37	11	36	**84**	8	29	48	**85**	**169**	**931**
09:00 10:00	305	517	14	**836**	37	387	26	**450**	**1286**	46	18	118	**182**	20	50	55	**125**	**307**	**1593**
11:30 12:30	422	601	20	**1043**	62	711	41	**814**	**1857**	118	25	254	**397**	12	54	54	**120**	**517**	**2374**
12:30 13:30	429	676	17	**1122**	70	772	16	**858**	**1980**	78	39	263	**380**	15	54	61	**130**	**510**	**2490**
15:00 16:00	401	637	26	**1064**	108	843	28	**979**	**2043**	108	40	254	**402**	21	54	53	**128**	**530**	**2573**
16:00 17:00	410	610	18	**1038**	79	876	22	**977**	**2015**	108	52	276	**436**	12	70	67	**149**	**585**	**2600**
17:00 18:00	274	636	24	**934**	89	769	9	**867**	**1801**	93	35	269	**397**	12	45	41	**98**	**495**	**2296**
Sub Total	2417	4232	125	**6774**	469	4724	155	**5348**	**12122**	609	221	1493	**2323**	102	376	400	**878**	**3201**	**15323**
U Turns	0			**0**	65			**65**	**65**	**0**			**0**	0			**0**	**0**	**65**
Total	2417	4232	125	**6774**	534	4724	155	**5413**	**12187**	609	221	1493	**2323**	102	376	400	**878**	**3201**	**15388**
EQ 12Hr	3360	5882	174	**9416**	742	6566	215	**7523**	**16939**	847	307	2075	**3229**	142	523	556	**1221**	**4450**	**21389**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	4032	7058	209	**11299**	890	7879	258	**9027**	**20326**	1016	368	2490	**3874**	170	628	667	**1465**	**5339**	**25665**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**1.20**					
AVG 24Hr	5282	9246	274	**14802**	1166	10321	338	**11825**	**26627**	1331	482	3262	**5075**	223	823	874	**1920**	**6995**	**33622**
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

MARAVISTA DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018 **WO No:** 37462

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

Full Study 15 Minute Increments

		STRANDHERD DR									MARAVISTA DR									
		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	7	39	2	48	2	16	0	18	**66**	4	0	5	9	1	2	4	7	**16**	**82**
07:15	07:30	10	36	0	46	2	31	1	34	**80**	2	0	5	7	0	5	5	10	**17**	**97**
07:30	07:45	13	45	0	58	2	39	0	41	**99**	10	1	7	18	0	7	8	15	**33**	**132**
07:45	08:00	17	72	0	89	7	37	1	45	**134**	5	0	6	11	1	6	4	11	**22**	**156**
08:00	08:15	17	56	0	73	2	47	0	49	**122**	10	1	4	15	1	6	9	16	**31**	**153**
08:15	08:30	28	81	1	110	4	62	3	69	**179**	9	3	6	18	3	9	10	22	**40**	**219**
08:30	08:45	34	104	0	138	4	68	5	77	**215**	11	5	9	25	2	3	19	24	**49**	**264**
08:45	09:00	50	122	3	175	4	66	3	73	**248**	7	2	17	26	2	11	10	23	**49**	**297**
09:00	09:15	48	104	3	155	5	64	4	73	**228**	7	4	22	33	3	12	16	31	**64**	**292**
09:15	09:30	63	129	2	194	8	101	7	116	**310**	10	6	20	36	5	12	12	29	**65**	**375**
09:30	09:45	102	126	3	231	12	105	13	130	**361**	16	5	35	56	2	15	18	35	**91**	**452**
09:45	10:00	92	158	6	256	16	117	2	135	**391**	13	3	41	57	10	11	9	30	**87**	**478**
11:30	11:45	108	158	1	267	14	186	9	209	**476**	26	7	59	92	3	7	17	27	**119**	**595**
11:45	12:00	95	148	5	248	22	156	9	187	**435**	30	3	73	106	4	12	7	23	**129**	**564**
12:00	12:15	105	129	6	240	18	182	7	207	**447**	29	7	53	89	2	16	13	31	**120**	**567**
12:15	12:30	114	166	8	288	15	187	16	218	**506**	33	8	69	110	3	19	17	39	**149**	**655**
12:30	12:45	119	159	3	281	20	196	4	220	**501**	24	10	61	95	4	10	14	28	**123**	**624**
12:45	13:00	103	184	4	291	17	187	4	208	**499**	22	15	69	106	5	17	15	37	**143**	**642**
13:00	13:15	99	184	5	288	23	190	4	217	**505**	13	9	68	90	3	14	18	35	**125**	**630**
13:15	13:30	108	149	5	262	22	199	4	225	**487**	19	5	65	89	3	13	14	30	**119**	**606**
15:00	15:15	88	154	7	249	30	190	9	229	**478**	22	9	51	82	5	14	7	26	**108**	**586**
15:15	15:30	101	192	6	299	37	223	6	266	**565**	37	7	83	127	3	20	18	41	**168**	**733**
15:30	15:45	103	163	6	272	30	211	7	248	**520**	25	14	57	96	8	10	16	34	**130**	**650**
15:45	16:00	109	128	7	244	23	219	6	248	**492**	24	10	63	97	5	10	12	27	**124**	**616**
16:00	16:15	101	140	3	244	19	218	5	242	**486**	21	12	56	89	2	17	10	29	**118**	**604**
16:15	16:30	112	149	5	266	25	223	4	252	**518**	30	11	81	122	1	17	13	31	**153**	**671**
16:30	16:45	97	151	6	254	30	229	3	262	**516**	35	18	77	130	5	11	23	39	**169**	**685**
16:45	17:00	100	170	4	274	18	206	10	234	**508**	22	11	62	95	4	25	21	50	**145**	**653**
17:00	17:15	85	145	4	234	26	207	2	235	**469**	31	10	62	103	1	14	5	20	**123**	**592**
17:15	17:30	80	188	9	277	29	218	2	249	**526**	23	10	73	106	3	7	14	24	**130**	**656**
17:30	17:45	54	163	9	226	22	185	1	208	**434**	23	9	68	100	4	11	10	25	**125**	**559**
17:45	18:00	55	140	2	197	26	159	4	189	**386**	16	6	66	88	4	13	12	29	**117**	**503**
Total:		2417	4232	125	6774	534	4724	155	5413	**12187**	609	221	1493	2323	102	376	400	878	**12187**	**15,388**

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MARAVISTA DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018 **WO No:** 37462

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

Full Study Cyclist Volume

Time Period		STRANDHERD DR			MARAVISTA DR			
		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	0	0	**0**	0	0	**0**	**0**
08:00	08:15	0	0	**0**	0	0	**0**	**0**
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		0	0	**0**	0	0	**0**	**0**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MARAVISTA DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018 **WO No:** 37462

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

Full Study Pedestrian Volume

	STRANDHERD DR			MARAVISTA DR			
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	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	0	0	**0**	0	0	**0**	**0**
08:00 08:15	0	0	**0**	0	0	**0**	**0**
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	1	**1**	0	0	**0**	**1**
11:45 12:00	1	0	**1**	0	0	**0**	**1**
12:00 12:15	0	0	**0**	0	0	**0**	**0**
12:15 12:30	0	2	**2**	0	0	**0**	**2**
12:30 12:45	0	0	**0**	0	0	**0**	**0**
12:45 13:00	0	1	**1**	0	0	**0**	**1**
13:00 13:15	0	0	**0**	0	0	**0**	**0**
13:15 13:30	0	1	**1**	0	0	**0**	**1**
15:00 15:15	0	4	**4**	0	0	**0**	**4**
15:15 15:30	0	6	**6**	0	0	**0**	**6**
15:30 15:45	0	3	**3**	0	0	**0**	**3**
15:45 16:00	2	2	**4**	1	0	**1**	**5**
16:00 16:15	0	3	**3**	0	0	**0**	**3**
16:15 16:30	0	1	**1**	0	0	**0**	**1**
16:30 16:45	0	3	**3**	0	0	**0**	**3**
16:45 17:00	0	0	**0**	0	0	**0**	**0**
17:00 17:15	0	2	**2**	0	1	**1**	**3**
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	3	**3**	0	0	**0**	**3**
Total	3	32	**35**	1	1	**2**	**37**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MARAVISTA DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018 **WO No:** 37462

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

Full Study Heavy Vehicles

		STRANDHERD DR									MARAVISTA DR									
		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	1	0	**1**	0	0	0	**0**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
07:15	07:30	0	0	0	**0**	0	1	0	**1**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
07:30	07:45	0	2	0	**2**	0	3	0	**3**	**5**	0	0	1	**1**	0	0	1	**1**	**2**	**7**
07:45	08:00	1	3	0	**4**	1	1	0	**2**	**6**	0	0	0	**0**	0	0	0	**0**	**0**	**6**
08:00	08:15	0	1	0	**1**	0	0	0	**0**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
08:15	08:30	0	2	0	**2**	0	2	0	**2**	**4**	0	0	0	**0**	0	0	1	**1**	**1**	**5**
08:30	08:45	0	2	0	**2**	0	1	0	**1**	**3**	0	0	1	**1**	0	0	0	**0**	**1**	**4**
08:45	09:00	1	2	0	**3**	1	3	0	**4**	**7**	0	0	0	**0**	0	0	0	**0**	**0**	**7**
09:00	09:15	0	1	0	**1**	0	0	0	**0**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
09:15	09:30	0	2	0	**2**	0	0	0	**0**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**2**
09:30	09:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	1	**1**	0	0	1	**1**	**2**	**2**
09:45	10:00	1	0	0	**1**	1	3	0	**4**	**5**	0	0	0	**0**	0	0	0	**0**	**0**	**5**
11:30	11:45	0	0	0	**0**	0	2	0	**2**	**2**	0	0	1	**1**	0	0	1	**1**	**2**	**4**
11:45	12:00	0	1	0	**1**	1	1	0	**2**	**3**	1	0	0	**1**	0	0	1	**1**	**2**	**5**
12:00	12:15	0	1	0	**1**	0	2	0	**2**	**3**	0	0	1	**1**	0	0	0	**0**	**1**	**4**
12:15	12:30	1	1	0	**2**	1	2	0	**3**	**5**	0	0	0	**0**	0	0	0	**0**	**0**	**5**
12:30	12:45	0	3	0	**3**	0	1	0	**1**	**4**	0	0	1	**1**	0	0	1	**1**	**2**	**6**
12:45	13:00	1	3	0	**4**	1	0	1	**2**	**6**	0	0	1	**1**	0	0	1	**1**	**2**	**8**
13:00	13:15	1	0	0	**1**	0	1	0	**1**	**2**	0	0	1	**1**	0	0	0	**0**	**1**	**3**
13:15	13:30	1	0	0	**1**	0	1	0	**1**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**2**
15:00	15:15	0	0	0	**0**	0	2	0	**2**	**2**	0	0	1	**1**	0	0	1	**1**	**2**	**4**
15:15	15:30	1	0	0	**1**	1	0	0	**1**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**2**
15:30	15:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	1	**1**	0	0	1	**1**	**2**	**2**
15:45	16:00	1	0	0	**1**	1	0	0	**1**	**2**	0	0	0	**0**	0	0	1	**1**	**1**	**3**
16:00	16:15	0	1	0	**1**	0	2	0	**2**	**3**	0	0	1	**1**	0	0	0	**0**	**1**	**4**
16:15	16:30	1	2	0	**3**	2	0	0	**2**	**5**	0	0	0	**0**	0	0	1	**1**	**1**	**6**
16:30	16:45	0	0	0	**0**	0	2	0	**2**	**2**	0	0	1	**1**	0	0	0	**0**	**1**	**3**
16:45	17:00	1	1	0	**2**	1	0	0	**1**	**3**	0	0	0	**0**	0	0	0	**0**	**0**	**3**
17:00	17:15	0	2	0	**2**	0	0	0	**0**	**2**	0	0	1	**1**	0	0	1	**1**	**2**	**4**
17:15	17:30	1	0	0	**1**	1	0	0	**1**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**2**
17:30	17:45	0	0	0	**0**	0	1	0	**1**	**1**	0	0	1	**1**	0	0	1	**1**	**2**	**3**
17:45	18:00	1	1	0	**2**	1	1	0	**2**	**4**	0	0	0	**0**	0	0	1	**1**	**1**	**5**
Total:	None	13	32	0	**45**	13	32	1	**46**	**91**	1	0	14	**15**	0	0	14	**14**	**29**	**120**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

MARAVISTA DR @ STRANDHERD DR

Survey Date: Saturday, January 20, 2018 **WO No:** 37462

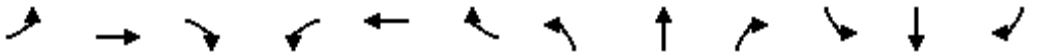
Start Time: 07:00 **Device:** Miovision

Full Study 15 Minute U-Turn Total

Time Period		STRANDHERD DR	STRANDHERD DR	MARAVISTA DR	MARAVISTA DR	
		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	1	0	0	**1**
08:00	08:15	0	0	0	0	**0**
08:15	08:30	0	1	0	0	**1**
08:30	08:45	0	1	0	0	**1**
08:45	09:00	0	0	0	0	**0**
09:00	09:15	0	0	0	0	**0**
09:15	09:30	0	1	0	0	**1**
09:30	09:45	0	2	0	0	**2**
09:45	10:00	0	1	0	0	**1**
11:30	11:45	0	0	0	0	**0**
11:45	12:00	0	5	0	0	**5**
12:00	12:15	0	1	0	0	**1**
12:15	12:30	0	1	0	0	**1**
12:30	12:45	0	4	0	0	**4**
12:45	13:00	0	2	0	0	**2**
13:00	13:15	0	2	0	0	**2**
13:15	13:30	0	4	0	0	**4**
15:00	15:15	0	5	0	0	**5**
15:15	15:30	0	5	0	0	**5**
15:30	15:45	0	1	0	0	**1**
15:45	16:00	0	1	0	0	**1**
16:00	16:15	0	2	0	0	**2**
16:15	16:30	0	6	0	0	**6**
16:30	16:45	0	0	0	0	**0**
16:45	17:00	0	5	0	0	**5**
17:00	17:15	0	4	0	0	**4**
17:15	17:30	0	3	0	0	**3**
17:30	17:45	0	3	0	0	**3**
17:45	18:00	0	4	0	0	**4**
Total		0	65	0	0	**65**

APPENDIX D – SYNCHRO 11 OUTPUT REPORTS

McINTOSH PERRY



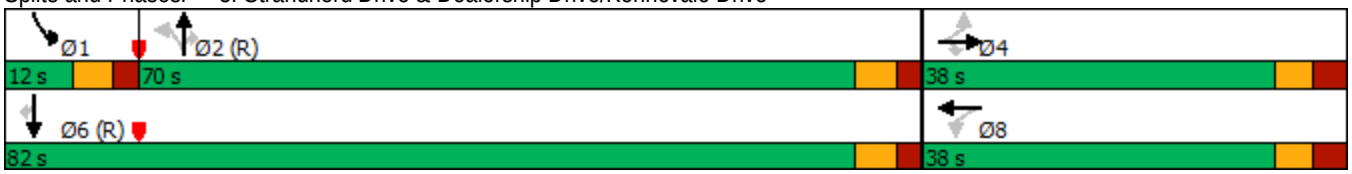
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	7	23	106	13	116	65	1115	91	53	555	64
Future Volume (vph)	21	7	23	106	13	116	65	1115	91	53	555	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0		75.0	50.0		0.0	100.0		50.0	100.0		50.0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.865				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1357	1267	1615	1752	1525	0	1805	1863	1568	1612	1776	1524
Flt Permitted	0.572			0.752			0.437			0.950		
Satd. Flow (perm)	817	1267	1615	1387	1525	0	830	1863	1568	1612	1776	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82		126				86			69
Link Speed (k/h)		50			40			80			80	
Link Distance (m)		392.3			232.4			273.7			323.3	
Travel Time (s)		28.2			20.9			12.3			14.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	33%	50%	0%	3%	33%	5%	0%	2%	3%	12%	7%	6%
Adj. Flow (vph)	23	8	25	115	14	126	71	1212	99	58	603	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	8	25	115	140	0	71	1212	99	58	603	70
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Prot	NA	Perm
Protected Phases		4			8			2		1	6	

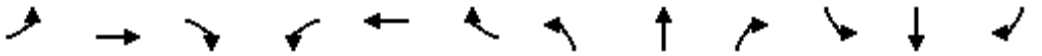
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8			2		2			6
Detector Phase	4	4	4	8	8		2	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0		70.0	70.0	70.0	12.0	82.0	82.0
Total Split (s)	38.0	38.0	38.0	38.0	38.0		70.0	70.0	70.0	12.0	82.0	82.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	31.7%		58.3%	58.3%	58.3%	10.0%	68.3%	68.3%
Maximum Green (s)	31.4	31.4	31.4	31.4	31.4		63.9	63.9	63.9	6.1	75.9	75.9
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.7	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	3.3	3.3	3.3	3.3	3.3		2.4	2.4	2.4	2.4	2.4	2.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.6	6.6	6.6		6.1	6.1	6.1	5.9	6.1	6.1
Lead/Lag							Lag	Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None		C-Max	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0		7.0	7.0
Flash Dont Walk (s)	24.0	24.0	24.0	24.0	24.0		22.0	22.0	22.0		22.0	22.0
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0	0		0	0
Act Effct Green (s)	15.5	15.5	15.5	15.5	15.5		78.2	78.2	78.2	10.2	91.8	91.8
Actuated g/C Ratio	0.13	0.13	0.13	0.13	0.13		0.65	0.65	0.65	0.08	0.76	0.76
v/c Ratio	0.22	0.05	0.09	0.64	0.46		0.13	1.00	0.09	0.42	0.44	0.06
Control Delay	49.7	43.3	0.7	65.2	14.8		11.5	49.3	3.4	46.9	15.0	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.7	43.3	0.7	65.2	14.8		11.5	49.3	3.4	46.9	15.0	5.5
LOS	D	D	A	E	B		B	D	A	D	B	A
Approach Delay		26.9			37.6			44.0			16.6	
Approach LOS		C			D			D			B	
Queue Length 50th (m)	5.2	1.8	0.0	27.5	3.1		6.6	~322.0	1.1	14.1	42.9	0.0
Queue Length 95th (m)	13.0	6.3	0.0	45.5	21.1		16.7	#443.1	9.5	29.6	186.8	24.8
Internal Link Dist (m)		368.3			208.4			249.7			299.3	
Turn Bay Length (m)	75.0		75.0	50.0			100.0		50.0	100.0		50.0
Base Capacity (vph)	213	331	483	362	492		540	1213	1051	137	1358	1181
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.02	0.05	0.32	0.28		0.13	1.00	0.09	0.42	0.44	0.06

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 29 (24%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay: 34.7		Intersection LOS: C	
Intersection Capacity Utilization 86.7%		ICU Level of Service E	
Analysis Period (min) 15			

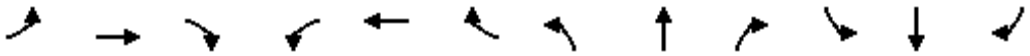
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Strandherd Drive & Dealership Drive/Kennevale Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	8	46	14	29	123	113	1120	15	28	544	6
Future Volume (vph)	65	8	46	14	29	123	113	1120	15	28	544	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	85.0		0.0	35.0		0.0	125.0		0.0	150.0		0.0
Storage Lanes	2		0	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00				0.99							
Frt		0.873			0.879			0.998				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	1541	0	1805	1625	0	3303	3530	0	1612	3343	1615
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3391	1541	0	1805	1625	0	3303	3530	0	1612	3343	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		50			134			1				100
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		119.6			217.5			323.3			149.2	
Travel Time (s)		8.6			15.7			19.4			9.0	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	9%	0%	0%	2%	6%	2%	7%	12%	8%	0%
Adj. Flow (vph)	71	9	50	15	32	134	123	1217	16	30	591	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	71	59	0	15	166	0	123	1233	0	30	591	7
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

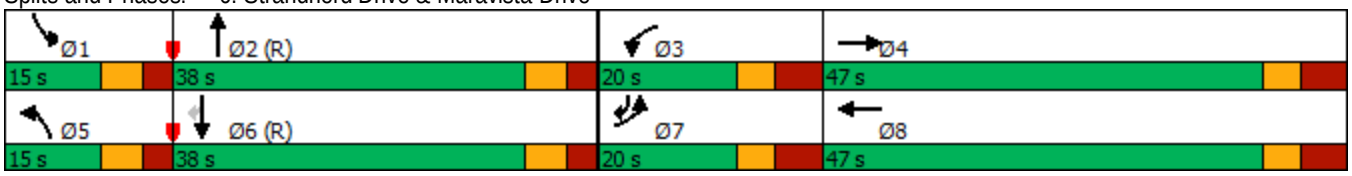


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases												6
Detector Phase	7	4		3	8		5	2		1	6	7
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	10.0		5.0	10.0	5.0
Minimum Split (s)	20.0	47.0		20.0	47.0		15.0	38.0		15.0	38.0	20.0
Total Split (s)	20.0	47.0		20.0	47.0		15.0	38.0		15.0	38.0	20.0
Total Split (%)	16.7%	39.2%		16.7%	39.2%		12.5%	31.7%		12.5%	31.7%	16.7%
Maximum Green (s)	12.4	39.4		12.4	39.4		8.6	31.5		8.6	31.5	12.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	3.3
All-Red Time (s)	4.3	4.3		4.3	4.3		2.7	2.8		2.7	2.8	4.3
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)	7.6	7.6		7.6	7.6		6.4	6.5		6.4	6.5	7.6
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	None
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		32.0			32.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			2			0			0	
Act Effct Green (s)	7.9	21.1		6.6	14.4		9.6	69.5		7.8	62.7	77.1
Actuated g/C Ratio	0.07	0.18		0.06	0.12		0.08	0.58		0.06	0.52	0.64
v/c Ratio	0.32	0.19		0.15	0.53		0.47	0.60		0.29	0.34	0.01
Control Delay	56.8	13.5		56.9	17.1		66.9	11.7		59.8	21.4	0.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	56.8	13.5		56.9	17.1		66.9	11.7		59.8	21.4	0.0
LOS	E	B		E	B		E	B		E	C	A
Approach Delay		37.1			20.4			16.7			23.0	
Approach LOS		D			C			B			C	
Queue Length 50th (m)	8.8	1.8		3.6	7.7		15.7	36.2		7.2	40.1	0.0
Queue Length 95th (m)	16.3	11.1		10.9	21.6		m14.7	m#212.5		17.1	89.8	0.0
Internal Link Dist (m)		95.6			193.5			299.3			125.2	
Turn Bay Length (m)	85.0			35.0			125.0			150.0		
Base Capacity (vph)	351	542		186	623		272	2045		120	1747	1130
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	0.20	0.11		0.08	0.27		0.45	0.60		0.25	0.34	0.01

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 83 (69%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 19.9	Intersection LOS: B

Intersection Capacity Utilization 74.0% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Strandherd Drive & Maravista Drive



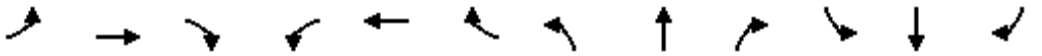
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	30	6	18	82	9	6
Future Volume (vph)	30	6	18	82	9	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1800
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.976				0.944	
Flt Protected				0.991	0.971	
Satd. Flow (prot)	1810	0	0	1846	1453	0
Flt Permitted				0.991	0.971	
Satd. Flow (perm)	1810	0	0	1846	1453	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	73.2			392.3	217.4	
Travel Time (s)	5.3			28.2	15.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	11%	0%	0%	33%
Adj. Flow (vph)	33	7	20	89	10	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	40	0	0	109	17	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.07	1.07
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.0%		ICU Level of Service A	
Analysis Period (min) 15			

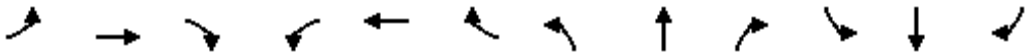
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	30	6	18	82	9	6
Future Volume (Veh/h)	30	6	18	82	9	6
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	7	20	89	10	7
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)				392		
pX, platoon unblocked						
vC, conflicting volume			40		166	36
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			40		166	36
tC, single (s)			4.2		6.4	6.5
tC, 2 stage (s)						
tF (s)			2.3		3.5	3.6
p0 queue free %			99		99	99
cM capacity (veh/h)			1514		819	954

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	40	109	17
Volume Left	0	20	10
Volume Right	7	0	7
cSH	1700	1514	869
Volume to Capacity	0.02	0.01	0.02
Queue Length 95th (m)	0.0	0.3	0.5
Control Delay (s)	0.0	1.4	9.2
Lane LOS		A	A
Approach Delay (s)	0.0	1.4	9.2
Approach LOS			A

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	22.0%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	17	37	136	10	85	22	795	140	76	1043	24
Future Volume (vph)	55	17	37	136	10	85	22	795	140	76	1043	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0		75.0	50.0		0.0	100.0		50.0	100.0		50.0
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.866				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1900	1615	1656	1536	0	1805	1845	1583	1736	1863	1615
Flt Permitted	0.671			0.746			0.160			0.950		
Satd. Flow (perm)	1238	1900	1615	1300	1536	0	304	1845	1583	1736	1863	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			70		92				78			28
Link Speed (k/h)		50			40			60			60	
Link Distance (m)		405.2			232.4			273.7			323.3	
Travel Time (s)		29.2			20.9			16.4			19.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	0%	9%	0%	8%	0%	3%	2%	4%	2%	0%
Adj. Flow (vph)	60	18	40	148	11	92	24	864	152	83	1134	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	18	40	148	103	0	24	864	152	83	1134	26
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0	2.0	2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6	2.0	2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm	Prot	NA	Perm
Protected Phases		4			8			2		1	6	

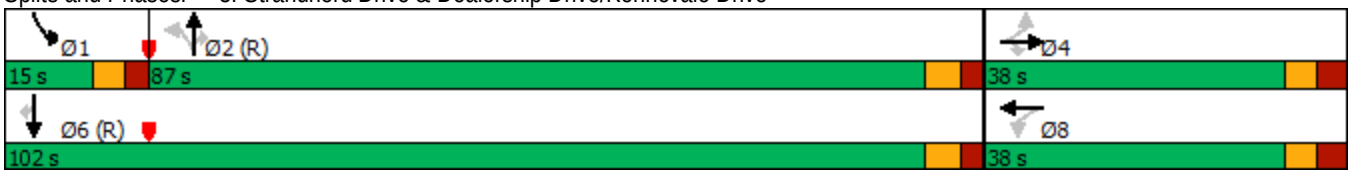


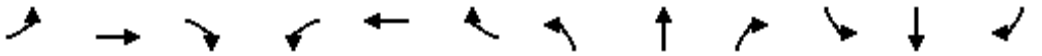
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8			2		2			6
Detector Phase	4	4	4	8	8		2	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0		87.0	87.0	87.0	15.0	102.0	102.0
Total Split (s)	38.0	38.0	38.0	38.0	38.0		87.0	87.0	87.0	15.0	102.0	102.0
Total Split (%)	27.1%	27.1%	27.1%	27.1%	27.1%		62.1%	62.1%	62.1%	10.7%	72.9%	72.9%
Maximum Green (s)	31.4	31.4	31.4	31.4	31.4		80.9	80.9	80.9	9.1	95.9	95.9
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.7	3.7	3.7	3.5	3.7	3.7
All-Red Time (s)	3.3	3.3	3.3	3.3	3.3		2.4	2.4	2.4	2.4	2.4	2.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.6	6.6	6.6	6.6	6.6		6.1	6.1	6.1	5.9	6.1	6.1
Lead/Lag							Lag	Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None		C-Max	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0		7.0	7.0
Flash Dont Walk (s)	24.0	24.0	24.0	24.0	24.0		22.0	22.0	22.0		22.0	22.0
Pedestrian Calls (#/hr)	2	2	2	0	0		1	1	1		0	0
Act Effct Green (s)	21.5	21.5	21.5	21.5	21.5		88.8	88.8	88.8	11.1	105.8	105.8
Actuated g/C Ratio	0.15	0.15	0.15	0.15	0.15		0.63	0.63	0.63	0.08	0.76	0.76
v/c Ratio	0.32	0.06	0.13	0.74	0.33		0.12	0.74	0.15	0.61	0.81	0.02
Control Delay	54.8	47.3	3.2	77.5	14.2		14.6	24.2	6.4	80.3	18.1	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	2.1	0.0
Total Delay	54.8	47.3	3.2	77.5	14.2		14.6	24.2	6.4	80.3	20.1	2.0
LOS	D	D	A	E	B		B	C	A	F	C	A
Approach Delay		36.2			51.5			21.4			23.8	
Approach LOS		D			D			C			C	
Queue Length 50th (m)	15.8	4.6	0.0	41.9	2.8		2.7	168.1	8.0	23.5	180.1	0.0
Queue Length 95th (m)	28.5	11.3	3.2	62.0	18.6		8.7	256.7	19.8	#50.9	337.9	2.9
Internal Link Dist (m)		381.2			208.4			249.7			299.3	
Turn Bay Length (m)	75.0		75.0	50.0			100.0		50.0	100.0		50.0
Base Capacity (vph)	277	426	416	291	415		192	1170	1032	140	1408	1227
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	150	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.04	0.10	0.51	0.25		0.13	0.74	0.15	0.59	0.90	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 57 (41%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 140			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 26.0		Intersection LOS: C	
Intersection Capacity Utilization 87.9%		ICU Level of Service E	
Analysis Period (min) 15			

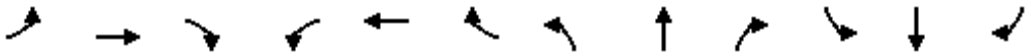
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Strandherd Drive & Dealership Drive/Kennevale Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	62	208	14	52	46	249	663	22	131	894	28
Future Volume (vph)	73	62	208	14	52	46	249	663	22	131	894	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	85.0		0.0	35.0		0.0	125.0		0.0	150.0		0.0
Storage Lanes	2		0	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00				0.99							
Frt		0.884			0.930			0.995				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3502	1667	0	1671	1619	0	3467	3453	0	1752	3539	1553
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3492	1667	0	1671	1619	0	3467	3453	0	1752	3539	1553
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		151			39			3				100
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		119.6			217.5			323.3			149.2	
Travel Time (s)		8.6			15.7			19.4			9.0	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	8%	8%	9%	1%	4%	5%	3%	2%	4%
Adj. Flow (vph)	79	67	226	15	57	50	271	721	24	142	972	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	293	0	15	107	0	271	745	0	142	972	30
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

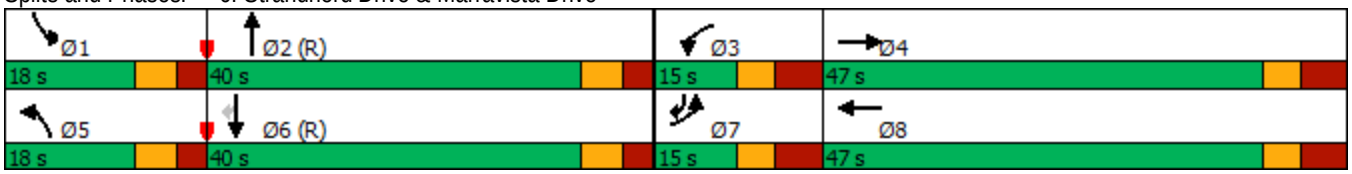


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases												6
Detector Phase	7	4		3	8		5	2		1	6	7
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	10.0		5.0	10.0	5.0
Minimum Split (s)	15.0	47.0		15.0	47.0		18.0	40.0		18.0	40.0	15.0
Total Split (s)	15.0	47.0		15.0	47.0		18.0	40.0		18.0	40.0	15.0
Total Split (%)	12.5%	39.2%		12.5%	39.2%		15.0%	33.3%		15.0%	33.3%	12.5%
Maximum Green (s)	7.4	39.4		7.4	39.4		11.6	33.5		11.6	33.5	7.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	3.3
All-Red Time (s)	4.3	4.3		4.3	4.3		2.7	2.8		2.7	2.8	4.3
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)	7.6	7.6		7.6	7.6		6.4	6.5		6.4	6.5	7.6
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	None
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		32.0			32.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			4			0			0	
Act Effct Green (s)	7.1	23.1		6.5	17.1		13.6	56.2		14.3	56.8	70.4
Actuated g/C Ratio	0.06	0.19		0.05	0.14		0.11	0.47		0.12	0.47	0.59
v/c Ratio	0.38	0.66		0.17	0.41		0.69	0.46		0.68	0.58	0.03
Control Delay	59.8	27.1		58.0	31.0		60.8	26.5		67.7	28.4	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	59.8	27.1		58.0	31.0		60.8	26.5		67.7	28.4	0.1
LOS	E	C		E	C		E	C		E	C	A
Approach Delay		34.0			34.3			35.7			32.5	
Approach LOS		C			C			D			C	
Queue Length 50th (m)	9.8	31.4		3.6	16.3		33.3	62.3		33.5	86.1	0.0
Queue Length 95th (m)	18.1	52.5		11.0	25.9		#54.1	112.8		#70.4	#172.1	0.0
Internal Link Dist (m)		95.6			193.5			299.3			125.2	
Turn Bay Length (m)	85.0			35.0			125.0			150.0		
Base Capacity (vph)	215	648		103	557		397	1617		210	1675	955
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	0.37	0.45		0.15	0.19		0.68	0.46		0.68	0.58	0.03

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 82 (68%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 34.0	Intersection LOS: C

Intersection Capacity Utilization 65.0% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Strandherd Drive & Marravista Drive



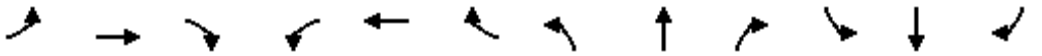
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	84	3	1	48	4	25
Future Volume (vph)	84	3	1	48	4	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1800
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.882	
Flt Protected				0.999	0.994	
Satd. Flow (prot)	1874	0	0	1810	1385	0
Flt Permitted				0.999	0.994	
Satd. Flow (perm)	1874	0	0	1810	1385	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	54.6			405.2	201.9	
Travel Time (s)	3.9			29.2	14.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	0%	50%	4%	0%	16%
Adj. Flow (vph)	91	3	1	52	4	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	94	0	0	53	31	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.6			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.07	1.07
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 14.6%		ICU Level of Service A	
Analysis Period (min) 15			

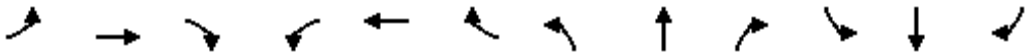
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	84	3	1	48	4	25
Future Volume (Veh/h)	84	3	1	48	4	25
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	91	3	1	52	4	27
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			94		146	92
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			94		146	92
tC, single (s)			4.6		6.4	6.4
tC, 2 stage (s)						
tF (s)			2.7		3.5	3.4
p0 queue free %			100		100	97
cM capacity (veh/h)			1247		850	928

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	94	53	31
Volume Left	0	1	4
Volume Right	3	0	27
cSH	1700	1247	917
Volume to Capacity	0.06	0.00	0.03
Queue Length 95th (m)	0.0	0.0	0.8
Control Delay (s)	0.0	0.2	9.1
Lane LOS		A	A
Approach Delay (s)	0.0	0.2	9.1
Approach LOS			A

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	14.6%	ICU Level of Service	A
Analysis Period (min)	15		



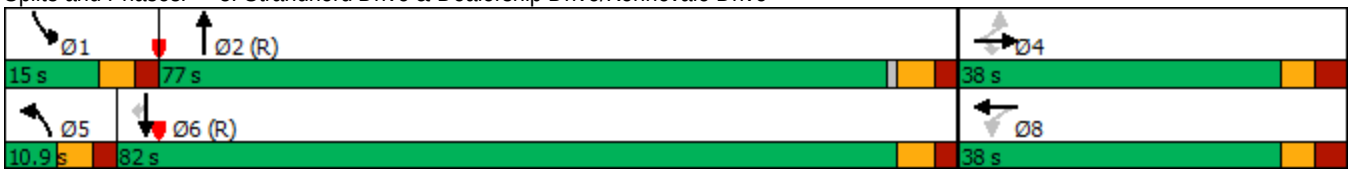
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	9	33	108	9	117	98	1132	93	54	563	82
Future Volume (vph)	29	9	33	108	9	117	98	1132	93	54	563	82
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0		75.0	50.0		0.0	100.0		50.0	100.0		100.0
Storage Lanes	1		1	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.861			0.989				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1286	1200	1530	1660	1448	0	3502	3498	0	1612	3374	1524
Flt Permitted	0.560			0.751			0.950			0.950		
Satd. Flow (perm)	758	1200	1530	1312	1448	0	3502	3498	0	1612	3374	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			75		122			10				89
Link Speed (k/h)		50			40			80			80	
Link Distance (m)		112.1			232.4			273.7			323.3	
Travel Time (s)		8.1			20.9			12.3			14.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	33%	50%	0%	3%	33%	5%	0%	2%	3%	12%	7%	6%
Adj. Flow (vph)	32	10	36	117	10	127	107	1230	101	59	612	89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	32	10	36	117	137	0	107	1331	0	59	612	89
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	

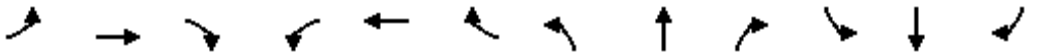


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8								6
Detector Phase	4	4	4	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0		10.9	70.0		12.0	82.0	82.0
Total Split (s)	38.0	38.0	38.0	38.0	38.0		10.9	77.0		15.0	82.0	82.0
Total Split (%)	29.0%	29.0%	29.0%	29.0%	29.0%		8.3%	58.8%		11.5%	62.6%	62.6%
Maximum Green (s)	31.4	31.4	31.4	31.4	31.4		5.0	70.9		9.1	75.9	75.9
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.5	3.7		3.5	3.7	3.7
All-Red Time (s)	3.3	3.3	3.3	3.3	3.3		2.4	2.4		2.4	2.4	2.4
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)	6.6	6.6	6.6	6.6	6.6		5.9	6.1		5.9	6.1	6.1
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	24.0	24.0	24.0	24.0	24.0			22.0			22.0	22.0
Pedestrian Calls (#/hr)	0	0	0	0	0			0			0	0
Act Effct Green (s)	17.0	17.0	17.0	17.0	17.0		9.8	87.5		10.1	85.5	85.5
Actuated g/C Ratio	0.13	0.13	0.13	0.13	0.13		0.07	0.67		0.08	0.65	0.65
v/c Ratio	0.33	0.06	0.14	0.69	0.47		0.41	0.57		0.48	0.28	0.09
Control Delay	58.4	47.3	1.3	73.6	16.1		62.2	14.6		69.5	10.8	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	58.4	47.3	1.3	73.6	16.1		62.2	14.6		69.5	10.8	2.4
LOS	E	D	A	E	B		E	B		E	B	A
Approach Delay		30.6			42.6			18.2			14.4	
Approach LOS		C			D			B			B	
Queue Length 50th (m)	8.0	2.4	0.0	30.8	3.6		14.5	98.8		15.6	34.5	0.0
Queue Length 95th (m)	18.1	7.6	0.9	49.4	22.3		23.9	152.2		29.9	54.2	7.2
Internal Link Dist (m)		88.1			208.4			249.7			299.3	
Turn Bay Length (m)	75.0		75.0	50.0			100.0			100.0		100.0
Base Capacity (vph)	181	287	424	314	440		261	2342		133	2203	1026
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	0.18	0.03	0.08	0.37	0.31		0.41	0.57		0.44	0.28	0.09

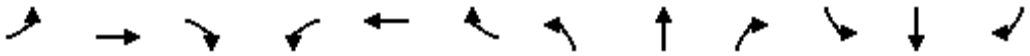
Intersection Summary			
Area Type:	Other		
Cycle Length: 130.9			
Actuated Cycle Length: 130.9			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 19.9		Intersection LOS: B	
Intersection Capacity Utilization 76.1%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Strandherd Drive & Dealership Drive/Kennevale Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	9	48	14	29	125	115	1143	15	28	568	6
Future Volume (vph)	66	9	48	14	29	125	115	1143	15	28	568	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	85.0		0.0	35.0		0.0	125.0		0.0	150.0		0.0
Storage Lanes	2		0	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00				0.99							
Frt		0.874			0.879			0.998				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3221	1463	0	1710	1540	0	3303	3530	0	1612	3343	1615
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3213	1463	0	1710	1540	0	3303	3530	0	1612	3343	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		52			136			1				100
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		119.6			217.5			323.3			149.2	
Travel Time (s)		8.6			15.7			19.4			9.0	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	9%	0%	0%	2%	6%	2%	7%	12%	8%	0%
Adj. Flow (vph)	72	10	52	15	32	136	125	1242	16	30	617	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	62	0	15	168	0	125	1258	0	30	617	7
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

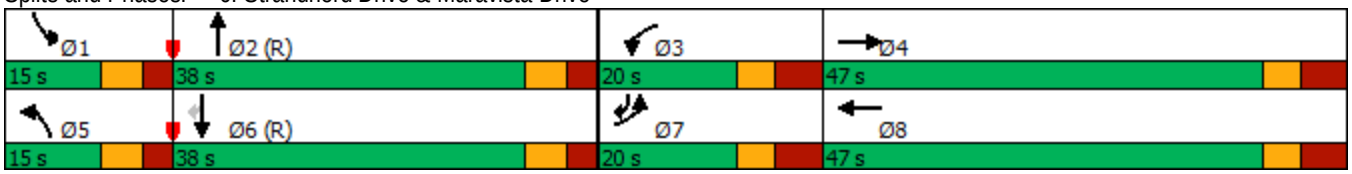


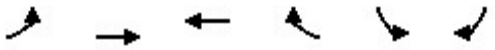
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases												6
Detector Phase	7	4		3	8		5	2		1	6	7
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	10.0		5.0	10.0	5.0
Minimum Split (s)	20.0	47.0		20.0	47.0		15.0	38.0		15.0	38.0	20.0
Total Split (s)	20.0	47.0		20.0	47.0		15.0	38.0		15.0	38.0	20.0
Total Split (%)	16.7%	39.2%		16.7%	39.2%		12.5%	31.7%		12.5%	31.7%	16.7%
Maximum Green (s)	12.4	39.4		12.4	39.4		8.6	31.5		8.6	31.5	12.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	3.3
All-Red Time (s)	4.3	4.3		4.3	4.3		2.7	2.8		2.7	2.8	4.3
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)	7.6	7.6		7.6	7.6		6.4	6.5		6.4	6.5	7.6
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	None
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		32.0			32.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			2			0			0	
Act Effct Green (s)	8.1	21.3		6.6	14.5		9.6	69.3		7.8	62.5	77.0
Actuated g/C Ratio	0.07	0.18		0.06	0.12		0.08	0.58		0.06	0.52	0.64
v/c Ratio	0.33	0.21		0.16	0.55		0.48	0.62		0.29	0.35	0.01
Control Delay	57.1	13.7		57.2	17.7		58.6	23.5		59.8	21.8	0.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	57.1	13.7		57.2	17.7		58.6	23.5		59.8	21.8	0.0
LOS	E	B		E	B		E	C		E	C	A
Approach Delay		37.0			20.9			26.6			23.3	
Approach LOS		D			C			C			C	
Queue Length 50th (m)	8.9	2.0		3.6	7.7		15.5	104.9		7.2	42.6	0.0
Queue Length 95th (m)	16.4	11.6		10.9	22.1		25.4	#258.4		17.1	94.5	0.0
Internal Link Dist (m)		95.6			193.5			299.3			125.2	
Turn Bay Length (m)	85.0			35.0			125.0			150.0		
Base Capacity (vph)	332	518		176	596		271	2037		120	1740	1127
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	0.22	0.12		0.09	0.28		0.46	0.62		0.25	0.35	0.01

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 83 (69%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 25.9	Intersection LOS: C

Intersection Capacity Utilization 75.2% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

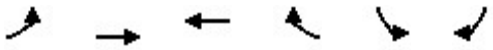
Splits and Phases: 6: Strandherd Drive & Maravista Drive





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	37	83	55	18	2
Future Volume (vph)	1	37	83	55	18	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.946		0.988	
Flt Protected		0.999			0.957	
Satd. Flow (prot)	0	1861	1762	0	1761	0
Flt Permitted		0.999			0.957	
Satd. Flow (perm)	0	1861	1762	0	1761	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		274.9	112.1		54.4	
Travel Time (s)		19.8	8.1		3.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	40	90	60	20	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	41	150	0	22	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Yield	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 17.7%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	37	83	55	18	2
Future Volume (Veh/h)	1	37	83	55	18	2
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	40	90	60	20	2
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			112			
pX, platoon unblocked						
vC, conflicting volume	150				162	120
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	150				162	120
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				98	100
cM capacity (veh/h)	1431				828	931

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	41	150	22
Volume Left	1	0	20
Volume Right	0	60	2
cSH	1431	1700	837
Volume to Capacity	0.00	0.09	0.03
Queue Length 95th (m)	0.0	0.0	0.6
Control Delay (s)	0.2	0.0	9.4
Lane LOS	A		A
Approach Delay (s)	0.2	0.0	9.4
Approach LOS			A

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	17.7%	ICU Level of Service	A
Analysis Period (min)	15		

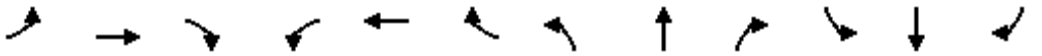
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	31	6	18	85	9	6
Future Volume (vph)	31	6	18	85	9	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.977				0.944	
Flt Protected				0.991	0.971	
Satd. Flow (prot)	1820	0	0	1846	1707	0
Flt Permitted				0.991	0.971	
Satd. Flow (perm)	1820	0	0	1846	1707	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	183.9			274.9	178.5	
Travel Time (s)	13.2			19.8	12.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	7	20	92	10	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	41	0	0	112	17	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		100	100		100	100
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.1%		ICU Level of Service A	
Analysis Period (min) 15			

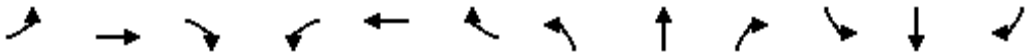
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	31	6	18	85	9	6
Future Volume (Veh/h)	31	6	18	85	9	6
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	34	7	20	92	10	7
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)				387		
pX, platoon unblocked						
vC, conflicting volume			41		170	38
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			41		170	38
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		99	99
cM capacity (veh/h)			1568		810	1035

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	41	112	17
Volume Left	0	20	10
Volume Right	7	0	7
cSH	1700	1568	890
Volume to Capacity	0.02	0.01	0.02
Queue Length 95th (m)	0.0	0.3	0.5
Control Delay (s)	0.0	1.4	9.1
Lane LOS		A	A
Approach Delay (s)	0.0	1.4	9.1
Approach LOS			A

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	22.1%	ICU Level of Service	A
Analysis Period (min)	15		



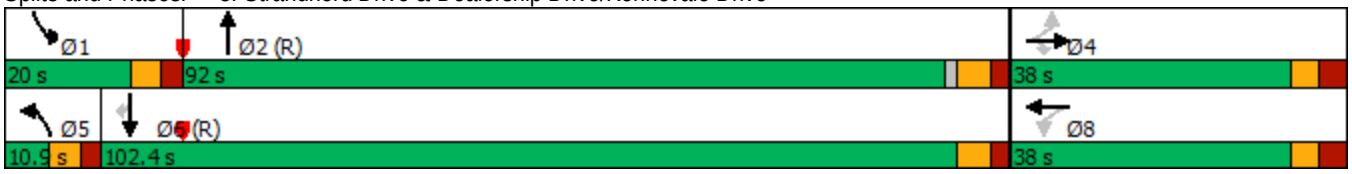
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	25	57	138	14	86	38	807	142	78	1059	43
Future Volume (vph)	84	25	57	138	14	86	38	807	142	78	1059	43
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0		75.0	50.0		0.0	100.0		50.0	100.0		100.0
Storage Lanes	1		1	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.871			0.978				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1286	1200	1530	1660	1440	0	3502	3456	0	1612	3374	1524
Flt Permitted	0.639			0.740			0.950			0.950		
Satd. Flow (perm)	865	1200	1530	1293	1440	0	3502	3456	0	1612	3374	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			107		93			22				68
Link Speed (k/h)		50			40			80			80	
Link Distance (m)		112.1			232.4			273.7			323.3	
Travel Time (s)		8.1			20.9			12.3			14.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	33%	50%	0%	3%	33%	5%	0%	2%	3%	12%	7%	6%
Adj. Flow (vph)	91	27	62	150	15	93	41	877	154	85	1151	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	91	27	62	150	108	0	41	1031	0	85	1151	47
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	

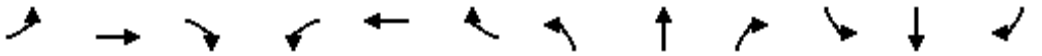


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8								6
Detector Phase	4	4	4	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0		10.9	87.0		15.0	102.0	102.0
Total Split (s)	38.0	38.0	38.0	38.0	38.0		10.9	92.0		20.0	102.4	102.4
Total Split (%)	25.1%	25.1%	25.1%	25.1%	25.1%		7.2%	60.8%		13.2%	67.7%	67.7%
Maximum Green (s)	31.4	31.4	31.4	31.4	31.4		5.0	85.9		14.1	96.3	96.3
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.5	3.7		3.5	3.7	3.7
All-Red Time (s)	3.3	3.3	3.3	3.3	3.3		2.4	2.4		2.4	2.4	2.4
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)	6.6	6.6	6.6	6.6	6.6		5.9	6.1		5.9	6.1	6.1
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	24.0	24.0	24.0	24.0	24.0			22.0			22.0	22.0
Pedestrian Calls (#/hr)	2	2	2	0	0			1			0	0
Act Effct Green (s)	22.7	22.7	22.7	22.7	22.7		6.4	97.6		12.4	105.8	105.8
Actuated g/C Ratio	0.15	0.15	0.15	0.15	0.15		0.04	0.65		0.08	0.70	0.70
v/c Ratio	0.71	0.15	0.19	0.77	0.37		0.28	0.46		0.64	0.49	0.04
Control Delay	87.3	54.7	2.0	86.3	16.6		75.1	15.1		89.0	12.5	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	87.3	54.7	2.0	86.3	16.6		75.1	15.1		89.0	12.5	1.0
LOS	F	D	A	F	B		E	B		F	B	A
Approach Delay		53.0			57.1			17.4			17.1	
Approach LOS		D			E			B			B	
Queue Length 50th (m)	27.7	7.5	0.0	46.2	4.1		6.5	81.7		26.3	87.0	0.0
Queue Length 95th (m)	46.3	16.6	1.5	68.2	21.3		13.6	116.1		45.8	118.4	2.7
Internal Link Dist (m)		88.1			208.4			249.7			299.3	
Turn Bay Length (m)	75.0		75.0	50.0			100.0			100.0		100.0
Base Capacity (vph)	179	249	402	268	372		148	2237		153	2360	1086
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	0.51	0.11	0.15	0.56	0.29		0.28	0.46		0.56	0.49	0.04

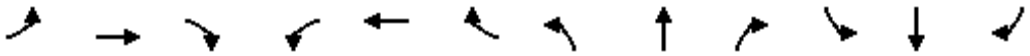
Intersection Summary			
Area Type:	Other		
Cycle Length: 151.3			
Actuated Cycle Length: 151.3			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 155			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 23.2		Intersection LOS: C	
Intersection Capacity Utilization 63.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Strandherd Drive & Dealership Drive/Kennevale Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	62	214	14	53	46	260	693	24	133	923	28
Future Volume (vph)	74	62	214	14	53	46	260	693	24	133	923	28
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	85.0		0.0	35.0		0.0	125.0		0.0	150.0		0.0
Storage Lanes	2		0	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00				0.99							
Frt		0.883			0.931			0.995				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3221	1486	0	1710	1650	0	3303	3516	0	1612	3343	1615
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3212	1486	0	1710	1650	0	3303	3516	0	1612	3343	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		155			39			3				100
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		119.6			217.5			323.3			149.2	
Travel Time (s)		8.6			15.7			19.4			9.0	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	9%	0%	0%	2%	6%	2%	7%	12%	8%	0%
Adj. Flow (vph)	80	67	233	15	58	50	283	753	26	145	1003	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	80	300	0	15	108	0	283	779	0	145	1003	30
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

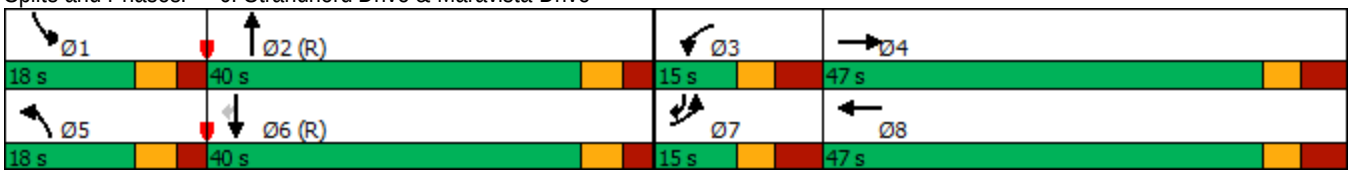


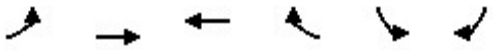
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases												6
Detector Phase	7	4		3	8		5	2		1	6	7
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	10.0		5.0	10.0	5.0
Minimum Split (s)	15.0	47.0		15.0	47.0		18.0	40.0		18.0	40.0	15.0
Total Split (s)	15.0	47.0		15.0	47.0		18.0	40.0		18.0	40.0	15.0
Total Split (%)	12.5%	39.2%		12.5%	39.2%		15.0%	33.3%		15.0%	33.3%	12.5%
Maximum Green (s)	7.4	39.4		7.4	39.4		11.6	33.5		11.6	33.5	7.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	3.3
All-Red Time (s)	4.3	4.3		4.3	4.3		2.7	2.8		2.7	2.8	4.3
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)	7.6	7.6		7.6	7.6		6.4	6.5		6.4	6.5	7.6
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	None
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		32.0			32.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			4			0			0	
Act Effct Green (s)	7.1	23.7		6.5	17.6		14.7	53.8		16.0	55.1	68.8
Actuated g/C Ratio	0.06	0.20		0.05	0.15		0.12	0.45		0.13	0.46	0.57
v/c Ratio	0.42	0.72		0.16	0.39		0.70	0.49		0.67	0.65	0.03
Control Delay	61.2	29.8		57.9	30.2		60.4	28.3		65.8	31.2	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	61.2	29.8		57.9	30.2		60.4	28.3		65.8	31.2	0.1
LOS	E	C		E	C		E	C		E	C	A
Approach Delay		36.4			33.6			36.9			34.7	
Approach LOS		D			C			D			C	
Queue Length 50th (m)	10.0	33.2		3.6	16.6		34.5	68.0		33.9	94.9	0.0
Queue Length 95th (m)	18.5	55.9		11.0	26.2		#60.3	118.1		#76.0	#187.9	0.0
Internal Link Dist (m)		95.6			193.5			299.3			125.2	
Turn Bay Length (m)	85.0			35.0			125.0			150.0		
Base Capacity (vph)	198	592		105	567		405	1578		215	1535	971
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	0.40	0.51		0.14	0.19		0.70	0.49		0.67	0.65	0.03

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 83 (69%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 35.7	Intersection LOS: D

Intersection Capacity Utilization 67.4% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

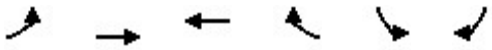
Splits and Phases: 6: Strandherd Drive & Maravista Drive





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	112	49	39	54	6
Future Volume (vph)	1	112	49	39	54	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.940		0.986	
Flt Protected					0.957	
Satd. Flow (prot)	0	1863	1751	0	1758	0
Flt Permitted					0.957	
Satd. Flow (perm)	0	1863	1751	0	1758	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		274.9	112.1		54.4	
Travel Time (s)		19.8	8.1		3.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	122	53	42	59	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	123	95	0	66	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Yield	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.7%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	112	49	39	54	6
Future Volume (Veh/h)	1	112	49	39	54	6
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	122	53	42	59	7
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			112			
pX, platoon unblocked						
vC, conflicting volume	95				198	74
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	95				198	74
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				93	99
cM capacity (veh/h)	1499				790	988

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	123	95	66
Volume Left	1	0	59
Volume Right	0	42	7
cSH	1499	1700	807
Volume to Capacity	0.00	0.06	0.08
Queue Length 95th (m)	0.0	0.0	2.1
Control Delay (s)	0.1	0.0	9.9
Lane LOS	A		A
Approach Delay (s)	0.1	0.0	9.9
Approach LOS			A

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	16.7%	ICU Level of Service	A
Analysis Period (min)	15		

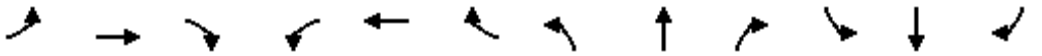
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	86	3	11	55	4	25
Future Volume (vph)	86	3	11	55	4	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.882	
Flt Protected				0.992	0.994	
Satd. Flow (prot)	1855	0	0	1848	1633	0
Flt Permitted				0.992	0.994	
Satd. Flow (perm)	1855	0	0	1848	1633	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	183.9			274.9	178.5	
Travel Time (s)	13.2			19.8	12.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	93	3	12	60	4	27
Shared Lane Traffic (%)						
Lane Group Flow (vph)	96	0	0	72	31	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		100	100		100	100
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.2%		ICU Level of Service A	
Analysis Period (min) 15			

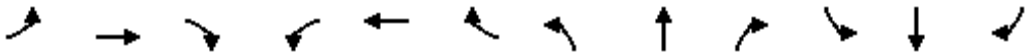
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	86	3	11	55	4	25
Future Volume (Veh/h)	86	3	11	55	4	25
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	93	3	12	60	4	27
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)				387		
pX, platoon unblocked						
vC, conflicting volume			96		178	94
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			96		178	94
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		100	97
cM capacity (veh/h)			1498		805	962

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	96	72	31
Volume Left	0	12	4
Volume Right	3	0	27
cSH	1700	1498	939
Volume to Capacity	0.06	0.01	0.03
Queue Length 95th (m)	0.0	0.2	0.8
Control Delay (s)	0.0	1.3	9.0
Lane LOS		A	A
Approach Delay (s)	0.0	1.3	9.0
Approach LOS			A

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	20.2%	ICU Level of Service	A
Analysis Period (min)	15		



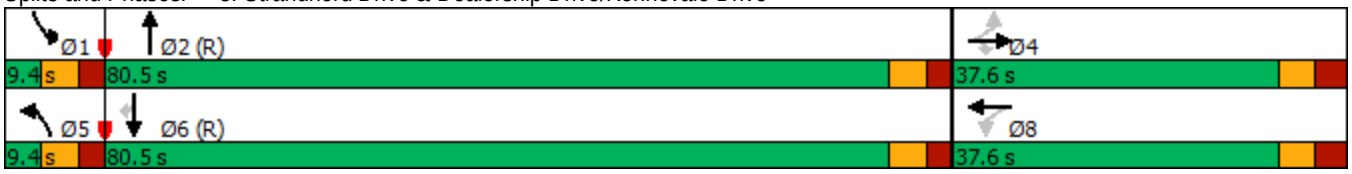
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	10	35	116	9	126	106	1220	100	58	607	88
Future Volume (vph)	31	10	35	116	9	126	106	1220	100	58	607	88
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0		75.0	50.0		0.0	100.0		50.0	100.0		100.0
Storage Lanes	1		1	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.860			0.989				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1286	1200	1530	1660	1448	0	3502	3498	0	1612	3374	1524
Flt Permitted	0.544			0.750			0.950			0.950		
Satd. Flow (perm)	736	1200	1530	1311	1448	0	3502	3498	0	1612	3374	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			77		98			11				96
Link Speed (k/h)		50			40			80			80	
Link Distance (m)		112.1			232.4			273.7			323.3	
Travel Time (s)		8.1			20.9			12.3			14.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	33%	50%	0%	3%	33%	5%	0%	2%	3%	12%	7%	6%
Adj. Flow (vph)	34	11	38	126	10	137	115	1326	109	63	660	96
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	11	38	126	147	0	115	1435	0	63	660	96
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	

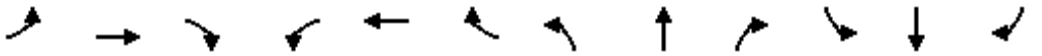


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8								6
Detector Phase	4	4	4	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		3.5	10.0		3.5	10.0	10.0
Minimum Split (s)	37.6	37.6	37.6	37.6	37.6		9.4	70.0		9.4	80.5	80.5
Total Split (s)	37.6	37.6	37.6	37.6	37.6		9.4	80.5		9.4	80.5	80.5
Total Split (%)	29.5%	29.5%	29.5%	29.5%	29.5%		7.4%	63.1%		7.4%	63.1%	63.1%
Maximum Green (s)	31.0	31.0	31.0	31.0	31.0		3.5	74.4		3.5	74.4	74.4
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.5	3.7		3.5	3.7	3.7
All-Red Time (s)	3.3	3.3	3.3	3.3	3.3		2.4	2.4		2.4	2.4	2.4
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)	6.6	6.6	6.6	6.6	6.6		5.9	6.1		5.9	6.1	6.1
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	24.0	24.0	24.0	24.0	24.0			22.0			22.0	22.0
Pedestrian Calls (#/hr)	0	0	0	0	0			0			0	0
Act Effct Green (s)	17.6	17.6	17.6	17.6	17.6		11.2	78.0		13.3	80.1	80.1
Actuated g/C Ratio	0.14	0.14	0.14	0.14	0.14		0.09	0.61		0.10	0.63	0.63
v/c Ratio	0.34	0.07	0.14	0.70	0.52		0.37	0.67		0.38	0.31	0.10
Control Delay	56.6	45.3	1.7	71.7	24.6		58.9	18.6		61.4	12.0	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	56.6	45.3	1.7	71.7	24.6		58.9	18.6		61.4	12.0	2.4
LOS	E	D	A	E	C		E	B		E	B	A
Approach Delay		30.0			46.3			21.5			14.6	
Approach LOS		C			D			C			B	
Queue Length 50th (m)	8.2	2.6	0.0	32.2	11.7		15.0	122.7		15.8	39.7	0.0
Queue Length 95th (m)	18.5	8.0	1.3	51.3	31.6		25.4	159.2		31.9	57.5	7.5
Internal Link Dist (m)		88.1			208.4			249.7			299.3	
Turn Bay Length (m)	75.0		75.0	50.0			100.0			100.0		100.0
Base Capacity (vph)	178	291	430	318	426		308	2144		168	2119	993
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	0.19	0.04	0.09	0.40	0.35		0.37	0.67		0.38	0.31	0.10

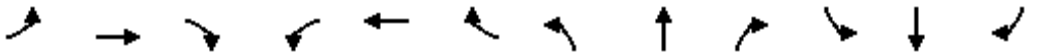
Intersection Summary			
Area Type:	Other		
Cycle Length: 127.5			
Actuated Cycle Length: 127.5			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 130			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 22.2		Intersection LOS: C	
Intersection Capacity Utilization 78.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Strandherd Drive & Dealership Drive/Kennevale Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	9	52	15	31	135	124	1231	16	30	612	7
Future Volume (vph)	71	9	52	15	31	135	124	1231	16	30	612	7
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	85.0		0.0	35.0		0.0	125.0		0.0	150.0		0.0
Storage Lanes	2		0	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00				0.99							
Frt		0.872			0.878			0.998				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3221	1458	0	1710	1538	0	3303	3530	0	1612	3343	1615
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3213	1458	0	1710	1538	0	3303	3530	0	1612	3343	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		57			147			1				100
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		119.6			217.5			323.3			149.2	
Travel Time (s)		8.6			15.7			19.4			9.0	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	9%	0%	0%	2%	6%	2%	7%	12%	8%	0%
Adj. Flow (vph)	77	10	57	16	34	147	135	1338	17	33	665	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	77	67	0	16	181	0	135	1355	0	33	665	8
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases												6
Detector Phase	7	4		3	8		5	2		1	6	7
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	10.0		5.0	10.0	5.0
Minimum Split (s)	20.0	47.0		20.0	47.0		15.0	38.0		15.0	38.0	20.0
Total Split (s)	20.0	47.0		20.0	47.0		15.0	38.0		15.0	38.0	20.0
Total Split (%)	16.7%	39.2%		16.7%	39.2%		12.5%	31.7%		12.5%	31.7%	16.7%
Maximum Green (s)	12.4	39.4		12.4	39.4		8.6	31.5		8.6	31.5	12.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	3.3
All-Red Time (s)	4.3	4.3		4.3	4.3		2.7	2.8		2.7	2.8	4.3
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)	7.6	7.6		7.6	7.6		6.4	6.5		6.4	6.5	7.6
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	None
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		32.0			32.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			2			0			0	
Act Effct Green (s)	8.3	21.5		6.7	14.6		9.8	68.8		7.9	62.0	76.7
Actuated g/C Ratio	0.07	0.18		0.06	0.12		0.08	0.57		0.07	0.52	0.64
v/c Ratio	0.35	0.22		0.17	0.57		0.50	0.67		0.31	0.39	0.01
Control Delay	57.2	13.1		57.3	17.8		59.2	24.7		60.3	22.5	0.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	57.2	13.1		57.3	17.8		59.2	24.7		60.3	22.5	0.0
LOS	E	B		E	B		E	C		E	C	A
Approach Delay		36.7			21.0			27.9			24.0	
Approach LOS		D			C			C			C	
Queue Length 50th (m)	9.5	2.0		3.9	8.2		16.7	119.5		8.0	47.4	0.0
Queue Length 95th (m)	17.3	11.9		11.3	22.9		27.3	#288.0		18.6	102.6	0.0
Internal Link Dist (m)		95.6			193.5			299.3			125.2	
Turn Bay Length (m)	85.0			35.0			125.0			150.0		
Base Capacity (vph)	332	520		176	603		276	2024		122	1726	1121
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	0.23	0.13		0.09	0.30		0.49	0.67		0.27	0.39	0.01

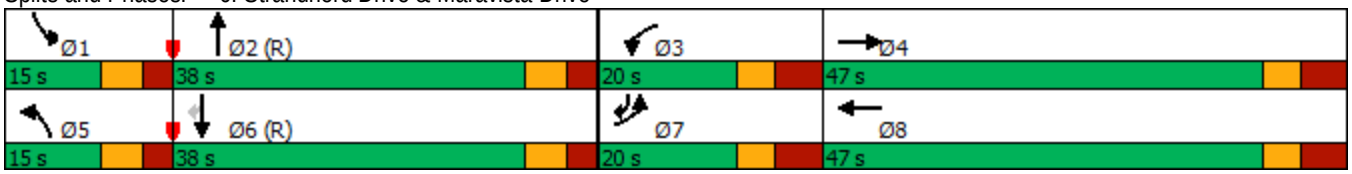
Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 83 (69%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 26.7	Intersection LOS: C

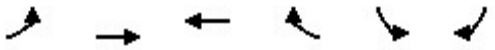
Intersection Capacity Utilization 78.4% ICU Level of Service D

Analysis Period (min) 15

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

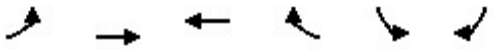
Splits and Phases: 6: Strandherd Drive & Maravista Drive





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	40	89	55	18	2
Future Volume (vph)	1	40	89	55	18	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.948		0.988	
Flt Protected		0.999			0.957	
Satd. Flow (prot)	0	1861	1766	0	1761	0
Flt Permitted		0.999			0.957	
Satd. Flow (perm)	0	1861	1766	0	1761	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		274.9	112.1		54.4	
Travel Time (s)		19.8	8.1		3.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	43	97	60	20	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	44	157	0	22	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Yield	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 18.0%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	40	89	55	18	2
Future Volume (Veh/h)	1	40	89	55	18	2
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	43	97	60	20	2
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			112			
pX, platoon unblocked						
vC, conflicting volume	157				172	127
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	157				172	127
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				98	100
cM capacity (veh/h)	1423				817	923

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	44	157	22
Volume Left	1	0	20
Volume Right	0	60	2
cSH	1423	1700	826
Volume to Capacity	0.00	0.09	0.03
Queue Length 95th (m)	0.0	0.0	0.7
Control Delay (s)	0.2	0.0	9.5
Lane LOS	A		A
Approach Delay (s)	0.2	0.0	9.5
Approach LOS			A

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	18.0%	ICU Level of Service	A
Analysis Period (min)	15		

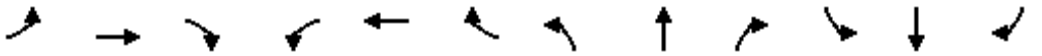
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	34	7	20	92	10	7
Future Volume (vph)	34	7	20	92	10	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.976				0.943	
Flt Protected				0.991	0.972	
Satd. Flow (prot)	1818	0	0	1846	1707	0
Flt Permitted				0.991	0.972	
Satd. Flow (perm)	1818	0	0	1846	1707	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	183.9			274.9	178.5	
Travel Time (s)	13.2			19.8	12.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	8	22	100	11	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	45	0	0	122	19	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		100	100		100	100
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.6%		ICU Level of Service A	
Analysis Period (min) 15			

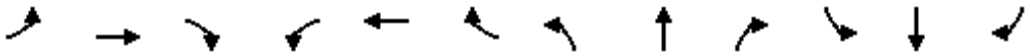
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	34	7	20	92	10	7
Future Volume (Veh/h)	34	7	20	92	10	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	37	8	22	100	11	8
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)				387		
pX, platoon unblocked						
vC, conflicting volume			45		185	41
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			45		185	41
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		99	99
cM capacity (veh/h)			1563		793	1030

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	45	122	19
Volume Left	0	22	11
Volume Right	8	0	8
cSH	1700	1563	878
Volume to Capacity	0.03	0.01	0.02
Queue Length 95th (m)	0.0	0.3	0.5
Control Delay (s)	0.0	1.4	9.2
Lane LOS		A	A
Approach Delay (s)	0.0	1.4	9.2
Approach LOS			A

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	22.6%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	27	61	149	10	93	41	869	153	84	1141	46
Future Volume (vph)	90	27	61	149	10	93	41	869	153	84	1141	46
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0		75.0	50.0		0.0	100.0		50.0	100.0		100.0
Storage Lanes	1		1	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.865			0.978				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1286	1200	1530	1660	1445	0	3502	3456	0	1612	3374	1524
Flt Permitted	0.635			0.738			0.950			0.950		
Satd. Flow (perm)	859	1200	1530	1290	1445	0	3502	3456	0	1612	3374	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			66		101			26				70
Link Speed (k/h)		50			40			80			80	
Link Distance (m)		112.1			232.4			273.7			323.3	
Travel Time (s)		8.1			20.9			12.3			14.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	33%	50%	0%	3%	33%	5%	0%	2%	3%	12%	7%	6%
Adj. Flow (vph)	98	29	66	162	11	101	45	945	166	91	1240	50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	98	29	66	162	112	0	45	1111	0	91	1240	50
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	

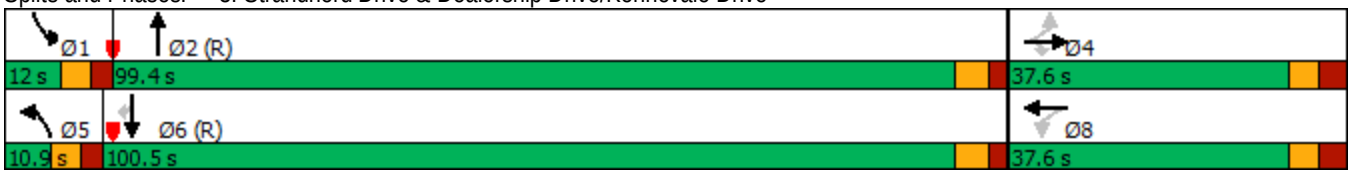


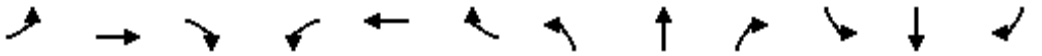
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8								6
Detector Phase	4	4	4	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	37.6	37.6	37.6	37.6	37.6		10.9	94.0		12.0	100.5	100.5
Total Split (s)	37.6	37.6	37.6	37.6	37.6		10.9	99.4		12.0	100.5	100.5
Total Split (%)	25.2%	25.2%	25.2%	25.2%	25.2%		7.3%	66.7%		8.1%	67.4%	67.4%
Maximum Green (s)	31.0	31.0	31.0	31.0	31.0		5.0	93.3		6.1	94.4	94.4
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.5	3.7		3.5	3.7	3.7
All-Red Time (s)	3.3	3.3	3.3	3.3	3.3		2.4	2.4		2.4	2.4	2.4
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)	6.6	6.6	6.6	6.6	6.6		5.9	6.1		5.9	6.1	6.1
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	24.0	24.0	24.0	24.0	24.0			22.0			22.0	22.0
Pedestrian Calls (#/hr)	2	2	2	0	0			1			0	0
Act Effct Green (s)	23.5	23.5	23.5	23.5	23.5		6.5	93.3		13.6	102.7	102.7
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.16		0.04	0.63		0.09	0.69	0.69
v/c Ratio	0.73	0.15	0.22	0.80	0.36		0.30	0.51		0.62	0.53	0.05
Control Delay	87.4	53.1	12.4	86.7	14.6		74.3	15.9		83.0	13.7	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	87.4	53.1	12.4	86.7	14.6		74.3	15.9		83.0	13.7	1.1
LOS	F	D	B	F	B		E	B		F	B	A
Approach Delay		56.6			57.2			18.2			17.8	
Approach LOS		E			E			B			B	
Queue Length 50th (m)	29.3	7.9	0.0	49.1	3.0		7.0	92.6		27.8	100.5	0.0
Queue Length 95th (m)	49.0	17.4	13.7	73.0	20.3		14.4	110.1		#76.1	131.6	2.9
Internal Link Dist (m)		88.1			208.4			249.7			299.3	
Turn Bay Length (m)	75.0		75.0	50.0			100.0			100.0		100.0
Base Capacity (vph)	178	249	370	268	380		152	2173		146	2325	1072
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	0.55	0.12	0.18	0.60	0.29		0.30	0.51		0.62	0.53	0.05

Intersection Summary			
Area Type:	Other		
Cycle Length: 149			
Actuated Cycle Length: 149			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 24.0		Intersection LOS: C	
Intersection Capacity Utilization 66.6%		ICU Level of Service C	
Analysis Period (min) 15			

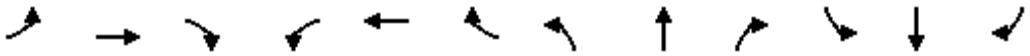
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Strandherd Drive & Dealership Drive/Kennevale Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	88	67	231	15	57	50	280	747	25	143	994	30
Future Volume (vph)	88	67	231	15	57	50	280	747	25	143	994	30
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	85.0		0.0	35.0		0.0	125.0		0.0	150.0		0.0
Storage Lanes	2		0	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00				0.99							
Frt		0.884			0.930			0.995				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3221	1487	0	1710	1648	0	3303	3516	0	1612	3343	1615
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3212	1487	0	1710	1648	0	3303	3516	0	1612	3343	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		154			39			3				100
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		119.6			217.5			323.3			149.2	
Travel Time (s)		8.6			15.7			14.5			6.7	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	9%	0%	0%	2%	6%	2%	7%	12%	8%	0%
Adj. Flow (vph)	96	73	251	16	62	54	304	812	27	155	1080	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	96	324	0	16	116	0	304	839	0	155	1080	33
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

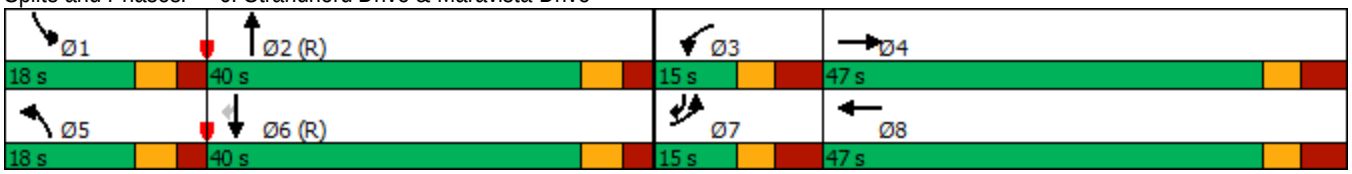


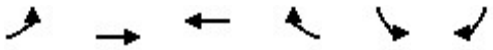
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases												6
Detector Phase	7	4		3	8		5	2		1	6	7
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	10.0		5.0	10.0	5.0
Minimum Split (s)	15.0	47.0		15.0	47.0		18.0	40.0		18.0	40.0	15.0
Total Split (s)	15.0	47.0		15.0	47.0		18.0	40.0		18.0	40.0	15.0
Total Split (%)	12.5%	39.2%		12.5%	39.2%		15.0%	33.3%		15.0%	33.3%	12.5%
Maximum Green (s)	7.4	39.4		7.4	39.4		11.6	33.5		11.6	33.5	7.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	3.3
All-Red Time (s)	4.3	4.3		4.3	4.3		2.7	2.8		2.7	2.8	4.3
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)	7.6	7.6		7.6	7.6		6.4	6.5		6.4	6.5	7.6
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	None
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		32.0			32.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			4			0			0	
Act Effct Green (s)	7.2	27.1		6.5	18.3		15.9	48.8		17.6	50.5	64.2
Actuated g/C Ratio	0.06	0.23		0.05	0.15		0.13	0.41		0.15	0.42	0.54
v/c Ratio	0.50	0.71		0.17	0.41		0.69	0.59		0.66	0.77	0.04
Control Delay	63.8	30.4		58.1	30.9		58.9	32.1		62.8	36.5	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	63.8	30.4		58.1	30.9		58.9	32.1		62.8	36.5	0.1
LOS	E	C		E	C		E	C		E	D	A
Approach Delay		38.0			34.2			39.2			38.8	
Approach LOS		D			C			D			D	
Queue Length 50th (m)	12.0	39.9		3.9	18.5		36.8	77.4		36.0	109.2	0.0
Queue Length 95th (m)	21.3	63.9		11.5	28.3		#66.4	#130.6		#82.2	#209.4	0.0
Internal Link Dist (m)		95.6			193.5			299.3			125.2	
Turn Bay Length (m)	85.0			35.0			125.0			150.0		
Base Capacity (vph)	198	591		105	567		438	1432		236	1406	912
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	0.48	0.55		0.15	0.20		0.69	0.59		0.66	0.77	0.04

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 83 (69%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 38.6	Intersection LOS: D

Intersection Capacity Utilization 71.3% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

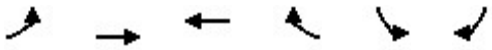
Splits and Phases: 6: Strandherd Drive & Maravista Drive





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	120	53	39	54	6
Future Volume (vph)	1	120	53	39	54	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.943		0.986	
Flt Protected					0.957	
Satd. Flow (prot)	0	1863	1757	0	1758	0
Flt Permitted					0.957	
Satd. Flow (perm)	0	1863	1757	0	1758	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		274.9	112.1		54.4	
Travel Time (s)		19.8	8.1		3.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	130	58	42	59	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	131	100	0	66	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Yield	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 17.1%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	120	53	39	54	6
Future Volume (Veh/h)	1	120	53	39	54	6
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	130	58	42	59	7
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			112			
pX, platoon unblocked						
vC, conflicting volume	100				211	79
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	100				211	79
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				92	99
cM capacity (veh/h)	1493				777	981

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	131	100	66
Volume Left	1	0	59
Volume Right	0	42	7
cSH	1493	1700	794
Volume to Capacity	0.00	0.06	0.08
Queue Length 95th (m)	0.0	0.0	2.2
Control Delay (s)	0.1	0.0	9.9
Lane LOS	A		A
Approach Delay (s)	0.1	0.0	9.9
Approach LOS			A

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	17.1%	ICU Level of Service	A
Analysis Period (min)	15		

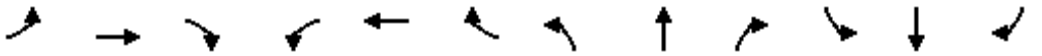
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	93	3	12	59	4	27
Future Volume (vph)	93	3	12	59	4	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.881	
Flt Protected				0.992	0.994	
Satd. Flow (prot)	1855	0	0	1848	1631	0
Flt Permitted				0.992	0.994	
Satd. Flow (perm)	1855	0	0	1848	1631	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	183.9			274.9	178.5	
Travel Time (s)	13.2			19.8	12.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	3	13	64	4	29
Shared Lane Traffic (%)						
Lane Group Flow (vph)	104	0	0	77	33	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.4%		ICU Level of Service A	
Analysis Period (min) 15			

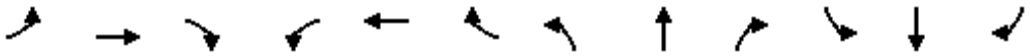
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	93	3	12	59	4	27
Future Volume (Veh/h)	93	3	12	59	4	27
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	101	3	13	64	4	29
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)				387		
pX, platoon unblocked						
vC, conflicting volume			104		192	102
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			104		192	102
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		99	97
cM capacity (veh/h)			1488		789	953

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	104	77	33
Volume Left	0	13	4
Volume Right	3	0	29
cSH	1700	1488	929
Volume to Capacity	0.06	0.01	0.04
Queue Length 95th (m)	0.0	0.2	0.9
Control Delay (s)	0.0	1.3	9.0
Lane LOS		A	A
Approach Delay (s)	0.0	1.3	9.0
Approach LOS			A

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	20.4%	ICU Level of Service	A
Analysis Period (min)	15		



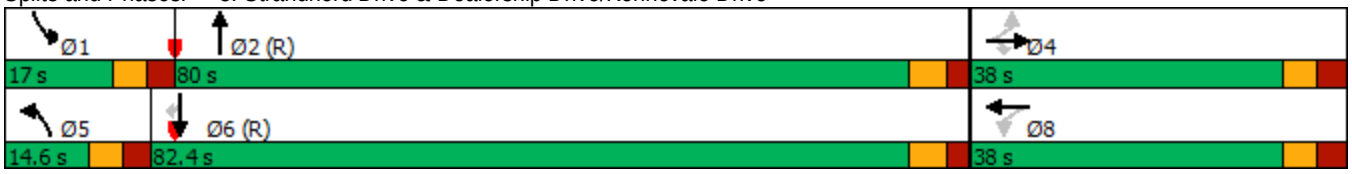
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	7	24	106	20	116	98	1115	91	54	574	64
Future Volume (vph)	22	7	24	106	20	116	98	1115	91	54	574	64
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0		75.0	50.0		0.0	100.0		50.0	100.0		100.0
Storage Lanes	1		1	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.872			0.989				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1286	1200	1530	1660	1438	0	3502	3498	0	1612	3374	1524
Flt Permitted	0.509			0.752			0.950			0.950		
Satd. Flow (perm)	689	1200	1530	1314	1438	0	3502	3498	0	1612	3374	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			75		126			10				79
Link Speed (k/h)		50			40			80			80	
Link Distance (m)		112.1			232.4			273.7			98.2	
Travel Time (s)		8.1			20.9			12.3			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	33%	50%	0%	3%	33%	5%	0%	2%	3%	12%	7%	6%
Adj. Flow (vph)	24	8	26	115	22	126	107	1212	99	59	624	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	8	26	115	148	0	107	1311	0	59	624	70
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	

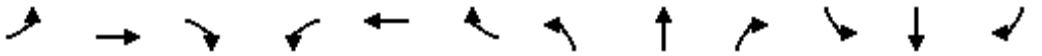


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8								6
Detector Phase	4	4	4	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0		11.2	70.0		12.0	82.0	82.0
Total Split (s)	38.0	38.0	38.0	38.0	38.0		14.6	80.0		17.0	82.4	82.4
Total Split (%)	28.1%	28.1%	28.1%	28.1%	28.1%		10.8%	59.3%		12.6%	61.0%	61.0%
Maximum Green (s)	31.4	31.4	31.4	31.4	31.4		8.4	73.9		10.8	76.3	76.3
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.5	3.7		3.5	3.7	3.7
All-Red Time (s)	3.3	3.3	3.3	3.3	3.3		2.7	2.4		2.7	2.4	2.4
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)	6.6	6.6	6.6	6.6	6.6		6.2	6.1		6.2	6.1	6.1
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	24.0	24.0	24.0	24.0	24.0			22.0			22.0	22.0
Pedestrian Calls (#/hr)	0	0	0	0	0			0			0	0
Act Effct Green (s)	17.1	17.1	17.1	17.1	17.1		9.5	91.1		10.3	89.5	89.5
Actuated g/C Ratio	0.13	0.13	0.13	0.13	0.13		0.07	0.67		0.08	0.66	0.66
v/c Ratio	0.28	0.05	0.10	0.69	0.51		0.44	0.55		0.48	0.28	0.07
Control Delay	58.9	48.9	0.8	76.4	18.3		65.4	14.3		72.1	10.6	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	58.9	48.9	0.8	76.4	18.3		65.4	14.3		72.1	10.6	2.0
LOS	E	D	A	E	B		E	B		E	B	A
Approach Delay		31.5			43.7			18.2			14.6	
Approach LOS		C			D			B			B	
Queue Length 50th (m)	6.2	2.0	0.0	31.3	5.6		15.1	98.1		16.2	35.4	0.0
Queue Length 95th (m)	15.0	6.9	0.0	50.1	25.6		24.8	149.7		30.7	55.7	5.4
Internal Link Dist (m)		88.1			208.4			249.7			74.2	
Turn Bay Length (m)	75.0		75.0	50.0			100.0			100.0		100.0
Base Capacity (vph)	160	279	413	305	431		253	2364		140	2236	1036
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.15	0.03	0.06	0.38	0.34		0.42	0.55		0.42	0.28	0.07

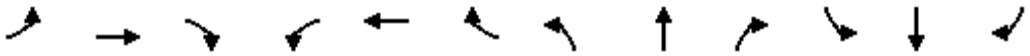
Intersection Summary			
Area Type:	Other		
Cycle Length: 135			
Actuated Cycle Length: 135			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 20.1		Intersection LOS: C	
Intersection Capacity Utilization 72.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Strandherd Drive & Dealership Drive/Kennevale Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	8	49	18	29	123	113	1120	15	28	561	6
Future Volume (vph)	65	8	49	18	29	123	113	1120	15	28	561	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	85.0		0.0	35.0		0.0	125.0		0.0	150.0		0.0
Storage Lanes	2		0	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00				0.99							
Frt		0.872			0.879			0.998				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3221	1457	0	1710	1540	0	3303	3530	0	1612	3343	1615
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3213	1457	0	1710	1540	0	3303	3530	0	1612	3343	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		53			134			1				100
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		119.6			217.5			141.8			149.2	
Travel Time (s)		8.6			15.7			8.5			9.0	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	9%	0%	0%	2%	6%	2%	7%	12%	8%	0%
Adj. Flow (vph)	71	9	53	20	32	134	123	1217	16	30	610	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	71	62	0	20	166	0	123	1233	0	30	610	7
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

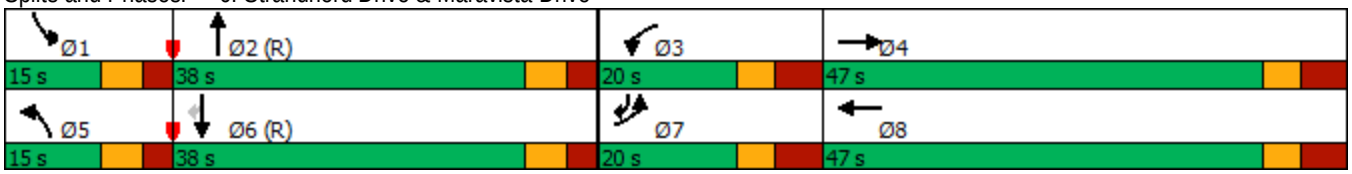


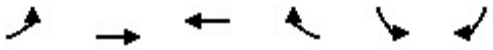
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases												6
Detector Phase	7	4		3	8		5	2		1	6	7
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	10.0		5.0	10.0	5.0
Minimum Split (s)	20.0	47.0		20.0	47.0		15.0	38.0		15.0	38.0	20.0
Total Split (s)	20.0	47.0		20.0	47.0		15.0	38.0		15.0	38.0	20.0
Total Split (%)	16.7%	39.2%		16.7%	39.2%		12.5%	31.7%		12.5%	31.7%	16.7%
Maximum Green (s)	12.4	39.4		12.4	39.4		8.6	31.5		8.6	31.5	12.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	3.3
All-Red Time (s)	4.3	4.3		4.3	4.3		2.7	2.8		2.7	2.8	4.3
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)	7.6	7.6		7.6	7.6		6.4	6.5		6.4	6.5	7.6
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	None
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		32.0			32.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			2			0			0	
Act Effct Green (s)	8.0	21.1		7.0	14.5		9.5	69.3		7.8	62.6	77.1
Actuated g/C Ratio	0.07	0.18		0.06	0.12		0.08	0.58		0.06	0.52	0.64
v/c Ratio	0.33	0.21		0.20	0.55		0.47	0.61		0.29	0.35	0.01
Control Delay	57.0	13.5		58.1	17.7		58.5	23.3		59.8	21.7	0.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	57.0	13.5		58.1	17.7		58.5	23.3		59.8	21.7	0.0
LOS	E	B		E	B		E	C		E	C	A
Approach Delay		36.8			22.0			26.5			23.2	
Approach LOS		D			C			C			C	
Queue Length 50th (m)	8.8	1.8		4.8	7.7		15.2	101.3		7.2	41.8	0.0
Queue Length 95th (m)	16.3	11.5		13.0	21.8		25.2	#251.3		17.1	93.3	0.0
Internal Link Dist (m)		95.6			193.5			117.8			125.2	
Turn Bay Length (m)	85.0			35.0			125.0			150.0		
Base Capacity (vph)	332	515		176	595		270	2038		120	1742	1128
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	0.21	0.12		0.11	0.28		0.46	0.61		0.25	0.35	0.01

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 83 (69%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 25.8	Intersection LOS: C

Intersection Capacity Utilization 74.4% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

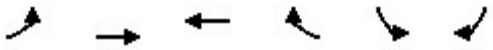
Splits and Phases: 6: Strandherd Drive & Maravista Drive





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	41	122	55	18	2
Future Volume (vph)	1	41	122	55	18	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1800
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.958		0.988	
Flt Protected		0.999			0.957	
Satd. Flow (prot)	0	1861	1785	0	1669	0
Flt Permitted		0.999			0.957	
Satd. Flow (perm)	0	1861	1785	0	1669	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		125.1	112.1		54.4	
Travel Time (s)		9.0	8.1		3.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	45	133	60	20	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	46	193	0	22	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.07	1.07
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Yield	

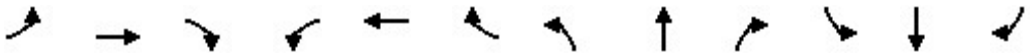
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 19.8%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	41	122	55	18	2
Future Volume (Veh/h)	1	41	122	55	18	2
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	45	133	60	20	2
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			112			
pX, platoon unblocked	0.99				0.99	0.99
vC, conflicting volume	193				210	163
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	181				198	151
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				97	100
cM capacity (veh/h)	1382				783	888

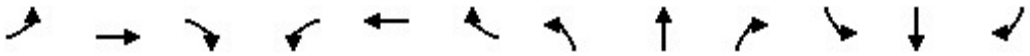
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	46	193	22
Volume Left	1	0	20
Volume Right	0	60	2
cSH	1382	1700	791
Volume to Capacity	0.00	0.11	0.03
Queue Length 95th (m)	0.0	0.0	0.7
Control Delay (s)	0.2	0.0	9.7
Lane LOS	A		A
Approach Delay (s)	0.2	0.0	9.7
Approach LOS			A

Intersection Summary			
Average Delay		0.8	
Intersection Capacity Utilization		19.8%	ICU Level of Service A
Analysis Period (min)		15	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	31	6	18	84	0	9	0	6	0	0	0
Future Volume (vph)	0	31	6	18	84	0	9	0	6	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1800	1800	1800
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977						0.944				
Flt Protected					0.991			0.971				
Satd. Flow (prot)	0	1820	0	0	1846	0	0	1707	0	0	1765	0
Flt Permitted					0.991			0.971				
Satd. Flow (perm)	0	1820	0	0	1846	0	0	1707	0	0	1765	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		183.9			149.7			178.5			101.5	
Travel Time (s)		13.2			10.8			12.9			7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	34	7	20	91	0	10	0	7	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	41	0	0	111	0	0	17	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.07	1.07	1.07
Turning Speed (k/h)	100		100	100		100	100		100	100		100
Sign Control		Free			Free			Stop			Stop	

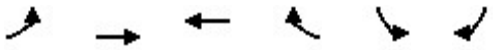
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.1%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	31	6	18	84	0	9	0	6	0	0	0
Future Volume (Veh/h)	0	31	6	18	84	0	9	0	6	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	34	7	20	91	0	10	0	7	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)					387							
pX, platoon unblocked												
vC, conflicting volume	91			41			168	168	38	176	172	91
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	91			41			168	168	38	176	172	91
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	99	100	100	100
cM capacity (veh/h)	1504			1568			788	715	1035	774	712	967

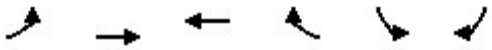
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	41	111	17	0
Volume Left	0	20	10	0
Volume Right	7	0	7	0
cSH	1504	1568	873	1700
Volume to Capacity	0.00	0.01	0.02	0.00
Queue Length 95th (m)	0.0	0.3	0.5	0.0
Control Delay (s)	0.0	1.4	9.2	0.0
Lane LOS		A	A	A
Approach Delay (s)	0.0	1.4	9.2	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay	1.8			
Intersection Capacity Utilization	22.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	36	82	40	2	2
Future Volume (vph)	1	36	82	40	2	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1800
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.956		0.932	
Flt Protected		0.999			0.976	
Satd. Flow (prot)	0	1861	1781	0	1605	0
Flt Permitted		0.999			0.976	
Satd. Flow (perm)	0	1861	1781	0	1605	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		149.7	125.1		120.7	
Travel Time (s)		10.8	9.0		8.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	39	89	43	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	40	132	0	4	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.07	1.07
Turning Speed (k/h)	100			100	100	100
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.8%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	36	82	40	2	2
Future Volume (Veh/h)	1	36	82	40	2	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	39	89	43	2	2
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			237			
pX, platoon unblocked						
vC, conflicting volume	132				152	110
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	132				152	110
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1453				840	943

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	40	132	4
Volume Left	1	0	2
Volume Right	0	43	2
cSH	1453	1700	888
Volume to Capacity	0.00	0.08	0.00
Queue Length 95th (m)	0.0	0.0	0.1
Control Delay (s)	0.2	0.0	9.1
Lane LOS	A		A
Approach Delay (s)	0.2	0.0	9.1
Approach LOS			A

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	16.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	10	0	1253	611	17
Future Volume (vph)	0	10	0	1253	611	17
Ideal Flow (vphpl)	1800	1800	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.865			0.996	
Flt Protected						
Satd. Flow (prot)	0	1526	0	3539	3525	0
Flt Permitted						
Satd. Flow (perm)	0	1526	0	3539	3525	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	133.2			83.4	141.8	
Travel Time (s)	9.6			6.0	10.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	11	0	1362	664	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	11	0	1362	682	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			7.2	7.2	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.00	1.00	1.00	1.00
Turning Speed (k/h)	100	100	100			100
Sign Control	Yield			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.0%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	10	0	1253	611	17
Future Volume (Veh/h)	0	10	0	1253	611	17
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	11	0	1362	664	18
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				182	142	
pX, platoon unblocked	0.85	0.89	0.89			
vC, conflicting volume	1354	341	682			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	483	21	403			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	434	939	1029			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	11	681	681	443	239
Volume Left	0	0	0	0	0
Volume Right	11	0	0	0	18
cSH	939	1700	1700	1700	1700
Volume to Capacity	0.01	0.40	0.40	0.26	0.14
Queue Length 95th (m)	0.3	0.0	0.0	0.0	0.0
Control Delay (s)	8.9	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	8.9	0.0		0.0	
Approach LOS	A				

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	38.0%	ICU Level of Service		A
Analysis Period (min)	15			

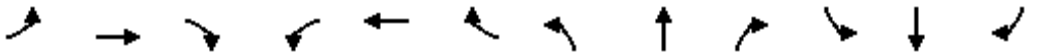
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	10	0	1253	615	6
Future Volume (vph)	0	10	0	1253	615	6
Ideal Flow (vphpl)	1800	1800	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.865			0.998	
Flt Protected						
Satd. Flow (prot)	0	1526	0	3539	3532	0
Flt Permitted						
Satd. Flow (perm)	0	1526	0	3539	3532	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	102.8			98.2	83.4	
Travel Time (s)	7.4			7.1	6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	11	0	1362	668	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	11	0	1362	675	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.00	1.00	1.00	1.00
Turning Speed (k/h)	100	100	100			100
Sign Control	Yield			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.0%		ICU Level of Service A	
Analysis Period (min) 15			

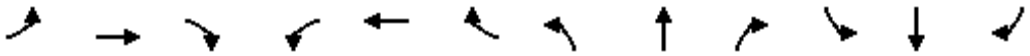
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	10	0	1253	615	6
Future Volume (Veh/h)	0	10	0	1253	615	6
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	11	0	1362	668	7
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				98	225	
pX, platoon unblocked	0.84	0.90	0.90			
vC, conflicting volume	1352	338	675			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	513	45	419			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	413	915	1024			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	11	681	681	445	230
Volume Left	0	0	0	0	0
Volume Right	11	0	0	0	7
cSH	915	1700	1700	1700	1700
Volume to Capacity	0.01	0.40	0.40	0.26	0.14
Queue Length 95th (m)	0.3	0.0	0.0	0.0	0.0
Control Delay (s)	9.0	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	9.0	0.0		0.0	
Approach LOS	A				

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	38.0%	ICU Level of Service		A
Analysis Period (min)	15			



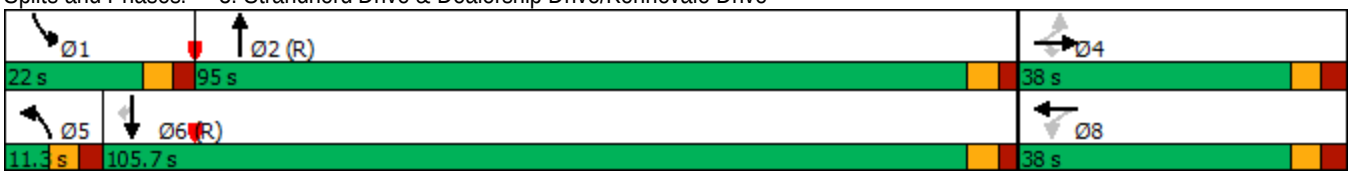
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	18	39	136	13	85	37	795	140	79	1100	24
Future Volume (vph)	58	18	39	136	13	85	37	795	140	79	1100	24
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0		75.0	50.0		0.0	100.0		50.0	100.0		100.0
Storage Lanes	1		1	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.870			0.978				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1286	1200	1530	1660	1441	0	3502	3456	0	1612	3374	1524
Flt Permitted	0.638			0.744			0.950			0.950		
Satd. Flow (perm)	863	1200	1530	1300	1441	0	3502	3456	0	1612	3374	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109		92			22				69
Link Speed (k/h)		50			40			80			80	
Link Distance (m)		112.1			232.4			273.7			98.2	
Travel Time (s)		8.1			20.9			12.3			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	33%	50%	0%	3%	33%	5%	0%	2%	3%	12%	7%	6%
Adj. Flow (vph)	63	20	42	148	14	92	40	864	152	86	1196	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	20	42	148	106	0	40	1016	0	86	1196	26
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	

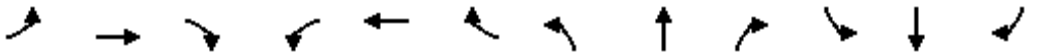


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8								6
Detector Phase	4	4	4	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0		11.2	87.0		15.0	102.0	102.0
Total Split (s)	38.0	38.0	38.0	38.0	38.0		11.3	95.0		22.0	105.7	105.7
Total Split (%)	24.5%	24.5%	24.5%	24.5%	24.5%		7.3%	61.3%		14.2%	68.2%	68.2%
Maximum Green (s)	31.4	31.4	31.4	31.4	31.4		5.1	88.9		15.8	99.6	99.6
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.5	3.7		3.5	3.7	3.7
All-Red Time (s)	3.3	3.3	3.3	3.3	3.3		2.7	2.4		2.7	2.4	2.4
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)	6.6	6.6	6.6	6.6	6.6		6.2	6.1		6.2	6.1	6.1
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	24.0	24.0	24.0	24.0	24.0			22.0			22.0	22.0
Pedestrian Calls (#/hr)	2	2	2	0	0			1			0	0
Act Effct Green (s)	22.8	22.8	22.8	22.8	22.8		6.4	100.3		12.9	109.2	109.2
Actuated g/C Ratio	0.15	0.15	0.15	0.15	0.15		0.04	0.65		0.08	0.70	0.70
v/c Ratio	0.50	0.11	0.13	0.77	0.37		0.28	0.45		0.64	0.50	0.02
Control Delay	72.6	55.4	0.9	88.4	16.9		77.0	15.2		89.5	12.7	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	72.6	55.4	0.9	88.4	16.9		77.0	15.2		89.5	12.7	0.0
LOS	E	E	A	F	B		E	B		F	B	A
Approach Delay		45.7			58.6			17.5			17.5	
Approach LOS		D			E			B			B	
Queue Length 50th (m)	19.1	5.7	0.0	46.8	4.0		6.5	81.1		27.4	93.2	0.0
Queue Length 95th (m)	34.0	13.6	0.0	69.2	21.4		13.6	117.3		46.8	125.7	0.0
Internal Link Dist (m)		88.1			208.4			249.7			74.2	
Turn Bay Length (m)	75.0		75.0	50.0			100.0			100.0		100.0
Base Capacity (vph)	174	243	396	263	365		145	2245		164	2376	1093
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	0.36	0.08	0.11	0.56	0.29		0.28	0.45		0.52	0.50	0.02

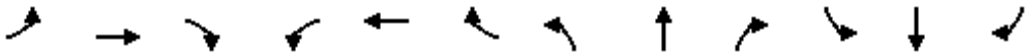
Intersection Summary			
Area Type:	Other		
Cycle Length: 155			
Actuated Cycle Length: 155			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 155			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 22.6		Intersection LOS: C	
Intersection Capacity Utilization 64.9%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Strandherd Drive & Dealership Drive/Kennevale Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	62	214	16	52	46	249	666	22	131	911	28
Future Volume (vph)	73	62	214	16	52	46	249	666	22	131	911	28
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	85.0		0.0	35.0		0.0	125.0		0.0	150.0		0.0
Storage Lanes	2		0	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00				0.99							
Frt		0.883			0.930			0.995				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3221	1486	0	1710	1648	0	3303	3516	0	1612	3343	1615
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3212	1486	0	1710	1648	0	3303	3516	0	1612	3343	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		155			39			3				100
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		119.6			217.5			141.8			149.2	
Travel Time (s)		8.6			15.7			8.5			9.0	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	9%	0%	0%	2%	6%	2%	7%	12%	8%	0%
Adj. Flow (vph)	79	67	233	17	57	50	271	724	24	142	990	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	300	0	17	107	0	271	748	0	142	990	30
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

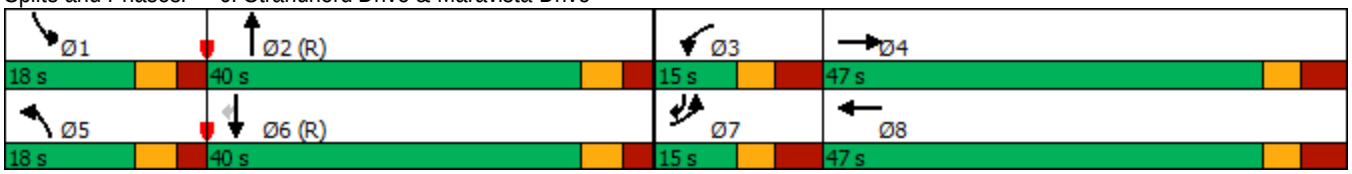


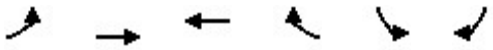
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases												6
Detector Phase	7	4		3	8		5	2		1	6	7
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	10.0		5.0	10.0	5.0
Minimum Split (s)	15.0	47.0		15.0	47.0		18.0	40.0		18.0	40.0	15.0
Total Split (s)	15.0	47.0		15.0	47.0		18.0	40.0		18.0	40.0	15.0
Total Split (%)	12.5%	39.2%		12.5%	39.2%		15.0%	33.3%		15.0%	33.3%	12.5%
Maximum Green (s)	7.4	39.4		7.4	39.4		11.6	33.5		11.6	33.5	7.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	3.3
All-Red Time (s)	4.3	4.3		4.3	4.3		2.7	2.8		2.7	2.8	4.3
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)	7.6	7.6		7.6	7.6		6.4	6.5		6.4	6.5	7.6
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	None
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		32.0			32.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			2			0			0	
Act Effct Green (s)	7.1	23.7		6.5	17.7		14.2	54.2		15.6	55.6	69.3
Actuated g/C Ratio	0.06	0.20		0.05	0.15		0.12	0.45		0.13	0.46	0.58
v/c Ratio	0.41	0.72		0.18	0.39		0.69	0.47		0.68	0.64	0.03
Control Delay	61.1	29.8		58.4	30.0		60.8	27.7		66.6	30.6	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	61.1	29.8		58.4	30.0		60.8	27.7		66.6	30.6	0.1
LOS	E	C		E	C		E	C		E	C	A
Approach Delay		36.3			33.9			36.5			34.2	
Approach LOS		D			C			D			C	
Queue Length 50th (m)	9.8	33.2		4.1	16.3		33.2	64.2		33.2	91.8	0.0
Queue Length 95th (m)	18.2	55.9		12.0	25.8		#56.3	112.6		#74.0	#184.4	0.0
Internal Link Dist (m)		95.6			193.5			117.8			125.2	
Turn Bay Length (m)	85.0			35.0			125.0			150.0		
Base Capacity (vph)	198	592		105	567		391	1589		210	1549	977
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	0.40	0.51		0.16	0.19		0.69	0.47		0.68	0.64	0.03

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 83 (69%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 35.4	Intersection LOS: D

Intersection Capacity Utilization 66.7% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

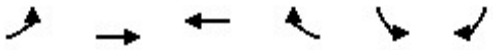
Splits and Phases: 6: Strandherd Drive & Maravista Drive





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	104	66	39	54	6
Future Volume (vph)	1	104	66	39	54	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.950		0.986	
Flt Protected					0.957	
Satd. Flow (prot)	0	1863	1770	0	1758	0
Flt Permitted					0.957	
Satd. Flow (perm)	0	1863	1770	0	1758	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		125.1	112.1		54.4	
Travel Time (s)		9.0	8.1		3.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	113	72	42	59	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	114	114	0	66	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Yield	

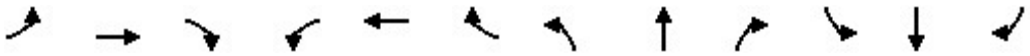
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.3%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	104	66	39	54	6
Future Volume (Veh/h)	1	104	66	39	54	6
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	113	72	42	59	7
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			112			
pX, platoon unblocked						
vC, conflicting volume	114				208	93
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	114				208	93
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				92	99
cM capacity (veh/h)	1475				780	964

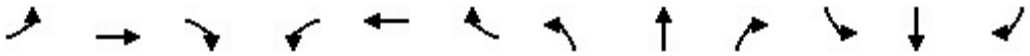
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	114	114	66
Volume Left	1	0	59
Volume Right	0	42	7
cSH	1475	1700	796
Volume to Capacity	0.00	0.07	0.08
Queue Length 95th (m)	0.0	0.0	2.2
Control Delay (s)	0.1	0.0	9.9
Lane LOS	A		A
Approach Delay (s)	0.1	0.0	9.9
Approach LOS			A

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	16.3%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	86	3	12	50	0	4	0	25	0	0	0
Future Volume (vph)	0	86	3	12	50	0	4	0	25	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1800	1800	1800	1800	1800	1800
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996						0.882				
Flt Protected					0.990			0.994				
Satd. Flow (prot)	0	1855	0	0	1844	0	0	1547	0	0	1765	0
Flt Permitted					0.990			0.994				
Satd. Flow (perm)	0	1855	0	0	1844	0	0	1547	0	0	1765	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		183.9			149.7			178.5			101.5	
Travel Time (s)		13.2			10.8			12.9			7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	93	3	13	54	0	4	0	27	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	96	0	0	67	0	0	31	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.07	1.07	1.07	1.07	1.07	1.07
Turning Speed (k/h)	100		100	100		100	100		100	100		100
Sign Control		Free			Free			Stop			Stop	

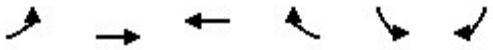
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.0%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	86	3	12	50	0	4	0	25	0	0	0
Future Volume (Veh/h)	0	86	3	12	50	0	4	0	25	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	93	3	13	54	0	4	0	27	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)					387							
pX, platoon unblocked												
vC, conflicting volume	54			96			174	174	94	202	176	54
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	54			96			174	174	94	202	176	54
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	97	100	100	100
cM capacity (veh/h)	1551			1498			783	713	962	731	711	1013

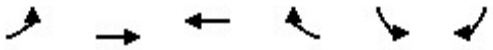
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	96	67	31	0
Volume Left	0	13	4	0
Volume Right	3	0	27	0
cSH	1551	1498	935	1700
Volume to Capacity	0.00	0.01	0.03	0.00
Queue Length 95th (m)	0.0	0.2	0.8	0.0
Control Delay (s)	0.0	1.5	9.0	0.0
Lane LOS		A	A	A
Approach Delay (s)	0.0	1.5	9.0	0.0
Approach LOS			A	A

Intersection Summary				
Average Delay	2.0			
Intersection Capacity Utilization	20.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	12	109	47	19	6	3
Future Volume (vph)	12	109	47	19	6	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1800
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.961		0.959	
Flt Protected		0.995			0.966	
Satd. Flow (prot)	0	1853	1790	0	1635	0
Flt Permitted		0.995			0.966	
Satd. Flow (perm)	0	1853	1790	0	1635	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		149.7	125.1		120.7	
Travel Time (s)		10.8	9.0		8.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	118	51	21	7	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	131	72	0	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.07	1.07
Turning Speed (k/h)	100			100	100	100
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.1%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	109	47	19	6	3
Future Volume (Veh/h)	12	109	47	19	6	3
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	118	51	21	7	3
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			237			
pX, platoon unblocked						
vC, conflicting volume	72				206	62
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	72				206	62
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				99	100
cM capacity (veh/h)	1528				776	1004

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	131	72	10
Volume Left	13	0	7
Volume Right	0	21	3
cSH	1528	1700	833
Volume to Capacity	0.01	0.04	0.01
Queue Length 95th (m)	0.2	0.0	0.3
Control Delay (s)	0.8	0.0	9.4
Lane LOS	A		A
Approach Delay (s)	0.8	0.0	9.4
Approach LOS			A

Intersection Summary			
Average Delay		0.9	
Intersection Capacity Utilization		23.1%	ICU Level of Service A
Analysis Period (min)		15	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	28	0	937	1122	18
Future Volume (vph)	0	28	0	937	1122	18
Ideal Flow (vphpl)	1800	1800	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.865			0.998	
Flt Protected						
Satd. Flow (prot)	0	1526	0	3539	3532	0
Flt Permitted						
Satd. Flow (perm)	0	1526	0	3539	3532	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	133.2			83.4	141.8	
Travel Time (s)	9.6			6.0	10.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	30	0	1018	1220	20
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	30	0	1018	1240	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			7.2	7.2	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.00	1.00	1.00	1.00
Turning Speed (k/h)	100	100	100			100
Sign Control	Yield			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	41.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	28	0	937	1122	18
Future Volume (Veh/h)	0	28	0	937	1122	18
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	30	0	1018	1220	20
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				182	142	
pX, platoon unblocked	0.83	0.76	0.76			
vC, conflicting volume	1739	620	1240			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	741	0	684			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	96	100			
cM capacity (veh/h)	291	824	688			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	30	509	509	813	427
Volume Left	0	0	0	0	0
Volume Right	30	0	0	0	20
cSH	824	1700	1700	1700	1700
Volume to Capacity	0.04	0.30	0.30	0.48	0.25
Queue Length 95th (m)	0.9	0.0	0.0	0.0	0.0
Control Delay (s)	9.5	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	9.5	0.0		0.0	
Approach LOS	A				

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	41.6%	ICU Level of Service		A
Analysis Period (min)	15			

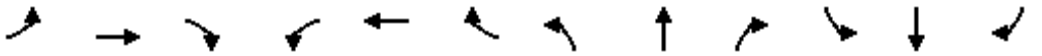
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	32	0	937	1142	7
Future Volume (vph)	0	32	0	937	1142	7
Ideal Flow (vphpl)	1800	1800	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.865			0.999	
Flt Protected						
Satd. Flow (prot)	0	1526	0	3539	3536	0
Flt Permitted						
Satd. Flow (perm)	0	1526	0	3539	3536	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	102.8			98.2	83.4	
Travel Time (s)	7.4			7.1	6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	35	0	1018	1241	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	35	0	1018	1249	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.00	1.00	1.00	1.00
Turning Speed (k/h)	100	100	100			100
Sign Control	Yield			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	41.8%	ICU Level of Service	A
Analysis Period (min)	15		

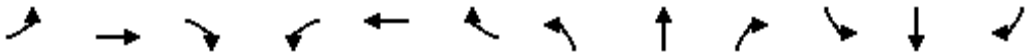
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	32	0	937	1142	7
Future Volume (Veh/h)	0	32	0	937	1142	7
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	35	0	1018	1241	8
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				98	225	
pX, platoon unblocked	0.83	0.76	0.76			
vC, conflicting volume	1754	624	1249			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	743	0	705			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	96	100			
cM capacity (veh/h)	292	827	678			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	35	509	509	827	422
Volume Left	0	0	0	0	0
Volume Right	35	0	0	0	8
cSH	827	1700	1700	1700	1700
Volume to Capacity	0.04	0.30	0.30	0.49	0.25
Queue Length 95th (m)	1.1	0.0	0.0	0.0	0.0
Control Delay (s)	9.5	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	9.5	0.0		0.0	
Approach LOS	A				

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	41.8%	ICU Level of Service	A
Analysis Period (min)	15		



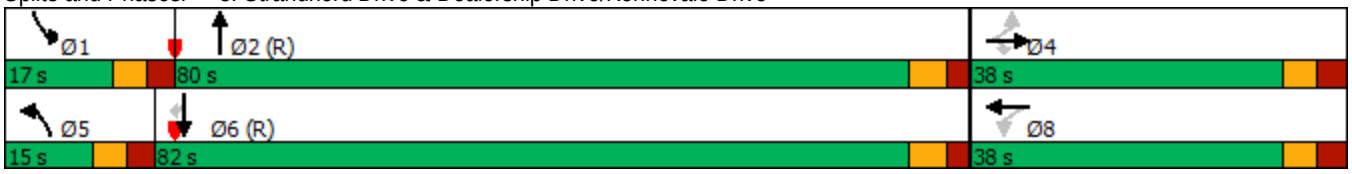
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	10	35	108	29	117	152	1331	93	55	594	82
Future Volume (vph)	30	10	35	108	29	117	152	1331	93	55	594	82
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0		75.0	50.0		0.0	100.0		50.0	100.0		100.0
Storage Lanes	1		1	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.880			0.990				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1286	1200	1530	1660	1432	0	3502	3502	0	1612	3374	1524
Flt Permitted	0.475			0.750			0.950			0.950		
Satd. Flow (perm)	643	1200	1530	1311	1432	0	3502	3502	0	1612	3374	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			75		127			8				89
Link Speed (k/h)		50			40			80			80	
Link Distance (m)		112.1			232.4			273.7			98.2	
Travel Time (s)		8.1			20.9			12.3			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	33%	50%	0%	3%	33%	5%	0%	2%	3%	12%	7%	6%
Adj. Flow (vph)	33	11	38	117	32	127	165	1447	101	60	646	89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	11	38	117	159	0	165	1548	0	60	646	89
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	

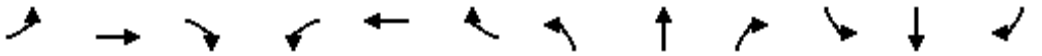


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8								6
Detector Phase	4	4	4	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0		11.2	70.0		12.0	82.0	82.0
Total Split (s)	38.0	38.0	38.0	38.0	38.0		15.0	80.0		17.0	82.0	82.0
Total Split (%)	28.1%	28.1%	28.1%	28.1%	28.1%		11.1%	59.3%		12.6%	60.7%	60.7%
Maximum Green (s)	31.4	31.4	31.4	31.4	31.4		8.8	73.9		10.8	75.9	75.9
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.5	3.7		3.5	3.7	3.7
All-Red Time (s)	3.3	3.3	3.3	3.3	3.3		2.7	2.4		2.7	2.4	2.4
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)	6.6	6.6	6.6	6.6	6.6		6.2	6.1		6.2	6.1	6.1
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	24.0	24.0	24.0	24.0	24.0			22.0			22.0	22.0
Pedestrian Calls (#/hr)	0	0	0	0	0			0			0	0
Act Effct Green (s)	17.4	17.4	17.4	17.4	17.4		11.8	90.9		10.4	86.9	86.9
Actuated g/C Ratio	0.13	0.13	0.13	0.13	0.13		0.09	0.67		0.08	0.64	0.64
v/c Ratio	0.40	0.07	0.15	0.70	0.54		0.54	0.66		0.49	0.30	0.09
Control Delay	66.4	49.3	2.1	76.5	20.5		65.2	16.8		72.0	12.0	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	66.4	49.3	2.1	76.5	20.5		65.2	16.8		72.0	12.0	2.6
LOS	E	D	A	E	C		E	B		E	B	A
Approach Delay		34.3			44.2			21.4			15.4	
Approach LOS		C			D			C			B	
Queue Length 50th (m)	8.6	2.8	0.0	31.9	8.1		23.1	131.4		16.5	39.4	0.0
Queue Length 95th (m)	19.4	8.4	1.4	50.9	29.1		34.7	199.0		30.9	61.7	7.7
Internal Link Dist (m)		88.1			208.4			249.7			74.2	
Turn Bay Length (m)	75.0		75.0	50.0			100.0			100.0		100.0
Base Capacity (vph)	149	279	413	304	430		307	2359		140	2171	1012
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	0.22	0.04	0.09	0.38	0.37		0.54	0.66		0.43	0.30	0.09

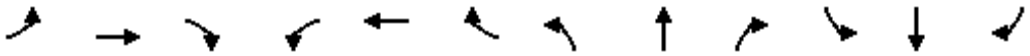
Intersection Summary			
Area Type:	Other		
Cycle Length: 135			
Actuated Cycle Length: 135			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 135			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 22.3		Intersection LOS: C	
Intersection Capacity Utilization 82.7%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 3: Strandherd Drive & Dealership Drive/Kennevale Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	66	9	55	21	29	125	116	1150	15	28	608	6
Future Volume (vph)	66	9	55	21	29	125	116	1150	15	28	608	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	85.0		0.0	35.0		0.0	125.0		0.0	150.0		0.0
Storage Lanes	2		0	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00				0.99							
Frt		0.871			0.879			0.998				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3221	1456	0	1710	1540	0	3303	3530	0	1612	3343	1615
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3213	1456	0	1710	1540	0	3303	3530	0	1612	3343	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60			136			1				100
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		119.6			217.5			141.8			149.2	
Travel Time (s)		8.6			15.7			8.5			9.0	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	9%	0%	0%	2%	6%	2%	7%	12%	8%	0%
Adj. Flow (vph)	72	10	60	23	32	136	126	1250	16	30	661	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	70	0	23	168	0	126	1266	0	30	661	7
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

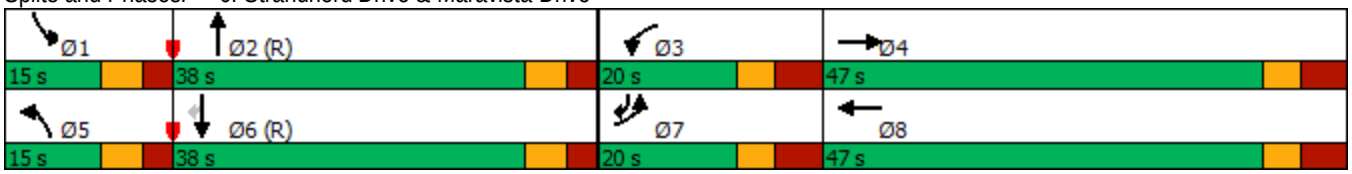


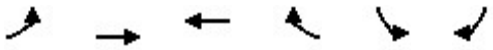
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases												6
Detector Phase	7	4		3	8		5	2		1	6	7
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	10.0		5.0	10.0	5.0
Minimum Split (s)	20.0	47.0		20.0	47.0		15.0	38.0		15.0	38.0	20.0
Total Split (s)	20.0	47.0		20.0	47.0		15.0	38.0		15.0	38.0	20.0
Total Split (%)	16.7%	39.2%		16.7%	39.2%		12.5%	31.7%		12.5%	31.7%	16.7%
Maximum Green (s)	12.4	39.4		12.4	39.4		8.6	31.5		8.6	31.5	12.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	3.3
All-Red Time (s)	4.3	4.3		4.3	4.3		2.7	2.8		2.7	2.8	4.3
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)	7.6	7.6		7.6	7.6		6.4	6.5		6.4	6.5	7.6
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	None
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		32.0			32.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			2			0			0	
Act Effct Green (s)	8.1	18.0		7.2	14.5		9.6	69.3		7.8	62.5	77.0
Actuated g/C Ratio	0.07	0.15		0.06	0.12		0.08	0.58		0.06	0.52	0.64
v/c Ratio	0.33	0.26		0.23	0.55		0.48	0.62		0.29	0.38	0.01
Control Delay	57.1	14.2		58.3	17.7		58.6	23.5		59.8	22.1	0.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	57.1	14.2		58.3	17.7		58.6	23.5		59.8	22.1	0.0
LOS	E	B		E	B		E	C		E	C	A
Approach Delay		35.9			22.6			26.7			23.5	
Approach LOS		D			C			C			C	
Queue Length 50th (m)	8.9	2.3		5.6	7.7		15.6	105.8		7.2	46.4	0.0
Queue Length 95th (m)	16.4	12.3		14.2	22.1		25.6	#260.6		17.1	102.1	0.0
Internal Link Dist (m)		95.6			193.5			117.8			125.2	
Turn Bay Length (m)	85.0			35.0			125.0			150.0		
Base Capacity (vph)	332	519		176	596		272	2037		120	1740	1127
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	0.22	0.13		0.13	0.28		0.46	0.62		0.25	0.38	0.01

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 83 (69%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 26.0	Intersection LOS: C

Intersection Capacity Utilization 75.4% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

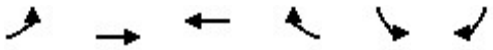
Splits and Phases: 6: Strandherd Drive & Maravista Drive





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	39	169	55	18	2
Future Volume (vph)	1	39	169	55	18	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1800
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.967		0.988	
Flt Protected		0.999			0.957	
Satd. Flow (prot)	0	1861	1801	0	1669	0
Flt Permitted		0.999			0.957	
Satd. Flow (perm)	0	1861	1801	0	1669	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		125.1	112.1		54.4	
Travel Time (s)		9.0	8.1		3.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	42	184	60	20	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	43	244	0	22	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.07	1.07
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Yield	

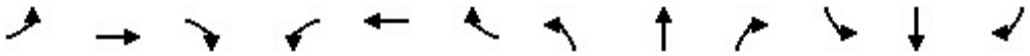
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.2%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	39	169	55	18	2
Future Volume (Veh/h)	1	39	169	55	18	2
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	42	184	60	20	2
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			112			
pX, platoon unblocked	0.98				0.98	0.98
vC, conflicting volume	244				258	214
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	219				233	188
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				97	100
cM capacity (veh/h)	1324				740	837

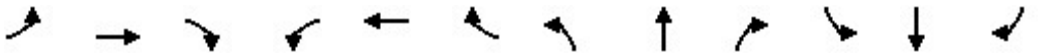
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	43	244	22
Volume Left	1	0	20
Volume Right	0	60	2
cSH	1324	1700	748
Volume to Capacity	0.00	0.14	0.03
Queue Length 95th (m)	0.0	0.0	0.7
Control Delay (s)	0.2	0.0	10.0
Lane LOS	A		A
Approach Delay (s)	0.2	0.0	10.0
Approach LOS			A

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	22.2%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	32	6	19	89	17	9	0	6	1	0	2
Future Volume (vph)	1	32	6	19	89	17	9	0	6	1	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1800	1800	1800
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.982			0.944			0.910	
Flt Protected		0.999			0.992			0.971			0.984	
Satd. Flow (prot)	0	1820	0	0	1815	0	0	1707	0	0	1580	0
Flt Permitted		0.999			0.992			0.971			0.984	
Satd. Flow (perm)	0	1820	0	0	1815	0	0	1707	0	0	1580	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		183.9			149.7			178.5			101.5	
Travel Time (s)		13.2			10.8			12.9			7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	35	7	21	97	18	10	0	7	1	0	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	0	136	0	0	17	0	0	3	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.07	1.07	1.07
Turning Speed (k/h)	100		100	100		100	100		100	100		100
Sign Control		Free			Free			Stop			Stop	

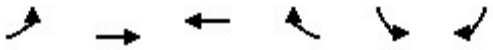
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.4%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	32	6	19	89	17	9	0	6	1	0	2
Future Volume (Veh/h)	1	32	6	19	89	17	9	0	6	1	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	35	7	21	97	18	10	0	7	1	0	2
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)					387							
pX, platoon unblocked												
vC, conflicting volume	115			42			190	198	38	196	192	106
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	115			42			190	198	38	196	192	106
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	99	100	100	100
cM capacity (veh/h)	1474			1567			760	688	1033	750	693	948

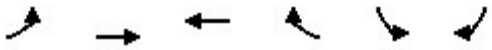
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	43	136	17	3
Volume Left	1	21	10	1
Volume Right	7	18	7	2
cSH	1474	1567	853	872
Volume to Capacity	0.00	0.01	0.02	0.00
Queue Length 95th (m)	0.0	0.3	0.5	0.1
Control Delay (s)	0.2	1.2	9.3	9.1
Lane LOS	A	A	A	A
Approach Delay (s)	0.2	1.2	9.3	9.1
Approach LOS			A	A

Intersection Summary				
Average Delay	1.8			
Intersection Capacity Utilization	23.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	38	123	47	2	2
Future Volume (vph)	1	38	123	47	2	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1800
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.963		0.932	
Flt Protected		0.999			0.976	
Satd. Flow (prot)	0	1861	1794	0	1605	0
Flt Permitted		0.999			0.976	
Satd. Flow (perm)	0	1861	1794	0	1605	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		149.7	125.1		120.7	
Travel Time (s)		10.8	9.0		8.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	41	134	51	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	42	185	0	4	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.07	1.07
Turning Speed (k/h)	100			100	100	100
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 19.3%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	38	123	47	2	2
Future Volume (Veh/h)	1	38	123	47	2	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	41	134	51	2	2
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			237			
pX, platoon unblocked						
vC, conflicting volume	185				202	160
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	185				202	160
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1390				785	886

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	42	185	4
Volume Left	1	0	2
Volume Right	0	51	2
cSH	1390	1700	833
Volume to Capacity	0.00	0.11	0.00
Queue Length 95th (m)	0.0	0.0	0.1
Control Delay (s)	0.2	0.0	9.3
Lane LOS	A		A
Approach Delay (s)	0.2	0.0	9.3
Approach LOS			A

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	19.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	15	0	1279	656	28
Future Volume (vph)	0	15	0	1279	656	28
Ideal Flow (vphpl)	1800	1800	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.865			0.994	
Flt Protected						
Satd. Flow (prot)	0	1526	0	3539	3518	0
Flt Permitted						
Satd. Flow (perm)	0	1526	0	3539	3518	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	133.2			83.4	141.8	
Travel Time (s)	9.6			6.0	10.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	16	0	1390	713	30
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	16	0	1390	743	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			7.2	7.2	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.00	1.00	1.00	1.00
Turning Speed (k/h)	100	100	100			100
Sign Control	Yield			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.7%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	15	0	1279	656	28
Future Volume (Veh/h)	0	15	0	1279	656	28
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	16	0	1390	713	30
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				182	142	
pX, platoon unblocked	0.80	0.88	0.88			
vC, conflicting volume	1423	372	743			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	359	23	443			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	100			
cM capacity (veh/h)	489	926	983			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	16	695	695	475	268
Volume Left	0	0	0	0	0
Volume Right	16	0	0	0	30
cSH	926	1700	1700	1700	1700
Volume to Capacity	0.02	0.41	0.41	0.28	0.16
Queue Length 95th (m)	0.4	0.0	0.0	0.0	0.0
Control Delay (s)	9.0	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	9.0	0.0		0.0	
Approach LOS	A				

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	38.7%	ICU Level of Service	A
Analysis Period (min)	15		

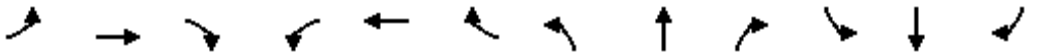
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	16	0	1279	662	9
Future Volume (vph)	0	16	0	1279	662	9
Ideal Flow (vphpl)	1800	1800	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.865			0.998	
Flt Protected						
Satd. Flow (prot)	0	1526	0	3539	3532	0
Flt Permitted						
Satd. Flow (perm)	0	1526	0	3539	3532	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	102.8			98.2	83.4	
Travel Time (s)	7.4			7.1	6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	17	0	1390	720	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	17	0	1390	730	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.00	1.00	1.00	1.00
Turning Speed (k/h)	100	100	100			100
Sign Control	Yield			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.7%		ICU Level of Service A	
Analysis Period (min) 15			

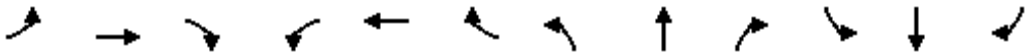
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	16	0	1279	662	9
Future Volume (Veh/h)	0	16	0	1279	662	9
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	17	0	1390	720	10
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				98	225	
pX, platoon unblocked	0.79	0.89	0.89			
vC, conflicting volume	1420	365	730			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	373	47	456			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	100			
cM capacity (veh/h)	472	903	982			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	17	695	695	480	250
Volume Left	0	0	0	0	0
Volume Right	17	0	0	0	10
cSH	903	1700	1700	1700	1700
Volume to Capacity	0.02	0.41	0.41	0.28	0.15
Queue Length 95th (m)	0.5	0.0	0.0	0.0	0.0
Control Delay (s)	9.1	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	9.1	0.0		0.0	
Approach LOS	A				

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	38.7%	ICU Level of Service		A
Analysis Period (min)	15			



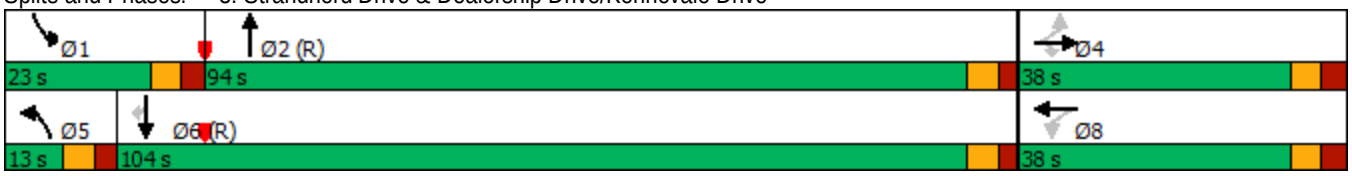
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	26	60	138	20	86	63	807	142	83	1151	43
Future Volume (vph)	89	26	60	138	20	86	63	807	142	83	1151	43
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0		75.0	50.0		0.0	100.0		50.0	100.0		100.0
Storage Lanes	1		1	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.879			0.978				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1286	1200	1530	1660	1434	0	3502	3456	0	1612	3374	1524
Flt Permitted	0.612			0.739			0.950			0.950		
Satd. Flow (perm)	828	1200	1530	1291	1434	0	3502	3456	0	1612	3374	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109		93			21				69
Link Speed (k/h)		50			40			80			80	
Link Distance (m)		112.1			232.4			273.7			98.2	
Travel Time (s)		8.1			20.9			12.3			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	33%	50%	0%	3%	33%	5%	0%	2%	3%	12%	7%	6%
Adj. Flow (vph)	97	28	65	150	22	93	68	877	154	90	1251	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	97	28	65	150	115	0	68	1031	0	90	1251	47
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	

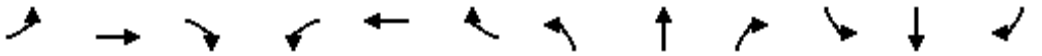


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8								6
Detector Phase	4	4	4	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	38.0	38.0	38.0	38.0	38.0		11.2	87.0		15.0	102.0	102.0
Total Split (s)	38.0	38.0	38.0	38.0	38.0		13.0	94.0		23.0	104.0	104.0
Total Split (%)	24.5%	24.5%	24.5%	24.5%	24.5%		8.4%	60.6%		14.8%	67.1%	67.1%
Maximum Green (s)	31.4	31.4	31.4	31.4	31.4		6.8	87.9		16.8	97.9	97.9
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.5	3.7		3.5	3.7	3.7
All-Red Time (s)	3.3	3.3	3.3	3.3	3.3		2.7	2.4		2.7	2.4	2.4
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)	6.6	6.6	6.6	6.6	6.6		6.2	6.1		6.2	6.1	6.1
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	24.0	24.0	24.0	24.0	24.0			22.0			22.0	22.0
Pedestrian Calls (#/hr)	2	2	2	0	0			1			0	0
Act Effct Green (s)	23.1	23.1	23.1	23.1	23.1		7.6	99.6		13.4	105.4	105.4
Actuated g/C Ratio	0.15	0.15	0.15	0.15	0.15		0.05	0.64		0.09	0.68	0.68
v/c Ratio	0.79	0.16	0.20	0.78	0.39		0.40	0.46		0.65	0.55	0.04
Control Delay	101.9	56.5	2.4	88.9	18.9		78.3	15.8		89.1	14.5	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	101.9	56.5	2.4	88.9	18.9		78.3	15.8		89.1	14.5	1.0
LOS	F	E	A	F	B		E	B		F	B	A
Approach Delay		61.2			58.5			19.6			18.9	
Approach LOS		E			E			B			B	
Queue Length 50th (m)	30.7	8.0	0.0	47.4	6.2		11.1	84.1		28.6	103.7	0.0
Queue Length 95th (m)	51.0	17.4	1.9	70.1	24.6		20.2	121.8		48.2	139.3	2.6
Internal Link Dist (m)		88.1			208.4			249.7			74.2	
Turn Bay Length (m)	75.0		75.0	50.0			100.0			100.0		100.0
Base Capacity (vph)	167	243	396	261	364		175	2228		174	2293	1058
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	0.58	0.12	0.16	0.57	0.32		0.39	0.46		0.52	0.55	0.04

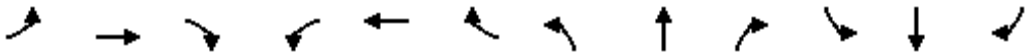
Intersection Summary			
Area Type:	Other		
Cycle Length: 155			
Actuated Cycle Length: 155			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 155			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 25.5		Intersection LOS: C	
Intersection Capacity Utilization 66.5%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Strandherd Drive & Dealership Drive/Kennevale Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	62	226	17	53	46	267	718	25	133	966	28
Future Volume (vph)	74	62	226	17	53	46	267	718	25	133	966	28
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	85.0		0.0	35.0		0.0	125.0		0.0	150.0		0.0
Storage Lanes	2		0	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00				0.99							
Frt		0.882			0.931			0.995				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3221	1483	0	1710	1650	0	3303	3516	0	1612	3343	1615
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3212	1483	0	1710	1650	0	3303	3516	0	1612	3343	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		164			39			3				100
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		119.6			217.5			141.8			149.2	
Travel Time (s)		8.6			15.7			8.5			9.0	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	9%	0%	0%	2%	6%	2%	7%	12%	8%	0%
Adj. Flow (vph)	80	67	246	18	58	50	290	780	27	145	1050	30
Shared Lane Traffic (%)												
Lane Group Flow (vph)	80	313	0	18	108	0	290	807	0	145	1050	30
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

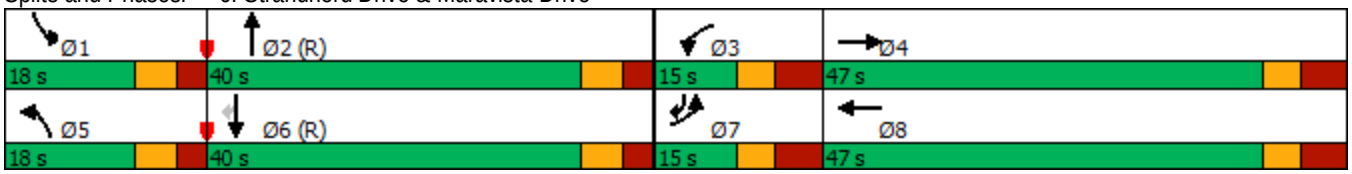


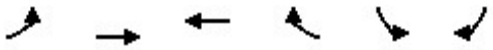
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases												6
Detector Phase	7	4		3	8		5	2		1	6	7
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	10.0		5.0	10.0	5.0
Minimum Split (s)	15.0	47.0		15.0	47.0		18.0	40.0		18.0	40.0	15.0
Total Split (s)	15.0	47.0		15.0	47.0		18.0	40.0		18.0	40.0	15.0
Total Split (%)	12.5%	39.2%		12.5%	39.2%		15.0%	33.3%		15.0%	33.3%	12.5%
Maximum Green (s)	7.4	39.4		7.4	39.4		11.6	33.5		11.6	33.5	7.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	3.3
All-Red Time (s)	4.3	4.3		4.3	4.3		2.7	2.8		2.7	2.8	4.3
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)	7.6	7.6		7.6	7.6		6.4	6.5		6.4	6.5	7.6
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	None
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		32.0			32.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			2			0			0	
Act Effct Green (s)	7.1	23.8		6.6	17.8		15.1	53.6		16.0	54.5	68.2
Actuated g/C Ratio	0.06	0.20		0.06	0.15		0.13	0.45		0.13	0.45	0.57
v/c Ratio	0.42	0.73		0.19	0.39		0.70	0.51		0.67	0.69	0.03
Control Delay	61.2	30.1		58.6	30.0		59.9	28.9		65.8	32.5	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	61.2	30.1		58.6	30.0		59.9	28.9		65.8	32.5	0.1
LOS	E	C		E	C		E	C		E	C	A
Approach Delay		36.4			34.1			37.1			35.7	
Approach LOS		D			C			D			D	
Queue Length 50th (m)	10.0	34.4		4.4	16.6		35.3	71.2		33.9	102.1	0.0
Queue Length 95th (m)	18.5	57.9		12.2	26.2		#62.1	123.4		#76.0	#201.2	0.0
Internal Link Dist (m)		95.6			193.5			117.8			125.2	
Turn Bay Length (m)	85.0			35.0			125.0			150.0		
Base Capacity (vph)	198	597		105	567		416	1572		215	1518	963
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	0.40	0.52		0.17	0.19		0.70	0.51		0.67	0.69	0.03

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 83 (69%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 36.2	Intersection LOS: D

Intersection Capacity Utilization 69.5% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

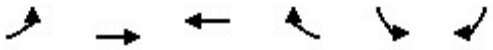
Splits and Phases: 6: Strandherd Drive & Maravista Drive





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	119	93	39	54	6
Future Volume (vph)	1	119	93	39	54	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.960		0.986	
Flt Protected					0.957	
Satd. Flow (prot)	0	1863	1788	0	1758	0
Flt Permitted					0.957	
Satd. Flow (perm)	0	1863	1788	0	1758	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		125.1	112.1		54.4	
Travel Time (s)		9.0	8.1		3.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	129	101	42	59	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	130	143	0	66	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Yield	

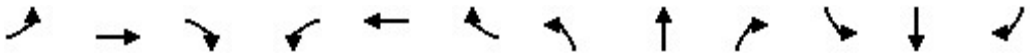
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 17.3%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	119	93	39	54	6
Future Volume (Veh/h)	1	119	93	39	54	6
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	129	101	42	59	7
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			112			
pX, platoon unblocked	1.00				1.00	1.00
vC, conflicting volume	143				253	122
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	140				251	119
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				92	99
cM capacity (veh/h)	1440				736	930

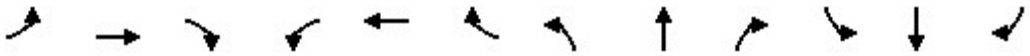
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	130	143	66
Volume Left	1	0	59
Volume Right	0	42	7
cSH	1440	1700	753
Volume to Capacity	0.00	0.08	0.09
Queue Length 95th (m)	0.0	0.0	2.3
Control Delay (s)	0.1	0.0	10.2
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	10.2
Approach LOS			B

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	17.3%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	88	3	12	58	8	4	0	25	4	0	2
Future Volume (vph)	1	88	3	12	58	8	4	0	25	4	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1800	1800	1800	1800	1800	1800
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.986			0.882			0.955	
Flt Protected					0.992			0.994			0.968	
Satd. Flow (prot)	0	1855	0	0	1822	0	0	1547	0	0	1631	0
Flt Permitted					0.992			0.994			0.968	
Satd. Flow (perm)	0	1855	0	0	1822	0	0	1547	0	0	1631	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		183.9			149.7			178.5			101.5	
Travel Time (s)		13.2			10.8			12.9			7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	96	3	13	63	9	4	0	27	4	0	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	100	0	0	85	0	0	31	0	0	6	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.07	1.07	1.07	1.07	1.07	1.07
Turning Speed (k/h)	100		100	100		100	100		100	100		100
Sign Control		Free			Free			Stop			Stop	

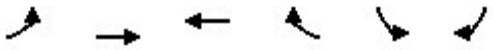
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.9%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	88	3	12	58	8	4	0	25	4	0	2
Future Volume (Veh/h)	1	88	3	12	58	8	4	0	25	4	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	96	3	13	63	9	4	0	27	4	0	2
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)					387							
pX, platoon unblocked												
vC, conflicting volume	72			99			195	198	98	220	194	68
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	72			99			195	198	98	220	194	68
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	97	99	100	100
cM capacity (veh/h)	1528			1494			757	692	959	710	694	996

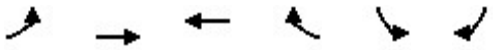
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	100	85	31	6
Volume Left	1	13	4	4
Volume Right	3	9	27	2
cSH	1528	1494	927	785
Volume to Capacity	0.00	0.01	0.03	0.01
Queue Length 95th (m)	0.0	0.2	0.8	0.2
Control Delay (s)	0.1	1.2	9.0	9.6
Lane LOS	A	A	A	A
Approach Delay (s)	0.1	1.2	9.0	9.6
Approach LOS			A	A

Intersection Summary				
Average Delay	2.0			
Intersection Capacity Utilization	20.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	116	76	23	4	2
Future Volume (vph)	1	116	76	23	4	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1800
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.969		0.955	
Flt Protected					0.968	
Satd. Flow (prot)	0	1863	1805	0	1631	0
Flt Permitted					0.968	
Satd. Flow (perm)	0	1863	1805	0	1631	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		149.7	125.1		120.7	
Travel Time (s)		10.8	9.0		8.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	126	83	25	4	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	127	108	0	6	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.07	1.07
Turning Speed (k/h)	100			100	100	100
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.9%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	116	76	23	4	2
Future Volume (Veh/h)	1	116	76	23	4	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	126	83	25	4	2
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			237			
pX, platoon unblocked						
vC, conflicting volume	108				224	96
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	108				224	96
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1483				764	961

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	127	108	6
Volume Left	1	0	4
Volume Right	0	25	2
cSH	1483	1700	820
Volume to Capacity	0.00	0.06	0.01
Queue Length 95th (m)	0.0	0.0	0.2
Control Delay (s)	0.1	0.0	9.4
Lane LOS	A		A
Approach Delay (s)	0.1	0.0	9.4
Approach LOS			A

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	16.9%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	44	0	982	1180	29
Future Volume (vph)	0	44	0	982	1180	29
Ideal Flow (vphpl)	1800	1800	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.865			0.996	
Flt Protected						
Satd. Flow (prot)	0	1526	0	3539	3525	0
Flt Permitted						
Satd. Flow (perm)	0	1526	0	3539	3525	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	133.2			83.4	141.8	
Travel Time (s)	9.6			6.0	10.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	48	0	1067	1283	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	48	0	1067	1315	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			7.2	7.2	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.00	1.00	1.00	1.00
Turning Speed (k/h)	100	100	100			100
Sign Control	Yield			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 43.5%		ICU Level of Service A	
Analysis Period (min) 15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	44	0	982	1180	29
Future Volume (Veh/h)	0	44	0	982	1180	29
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	48	0	1067	1283	32
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				182	142	
pX, platoon unblocked	0.80	0.73	0.73			
vC, conflicting volume	1832	658	1315			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	762	0	703			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	94	100			
cM capacity (veh/h)	274	796	653			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	48	534	534	855	460
Volume Left	0	0	0	0	0
Volume Right	48	0	0	0	32
cSH	796	1700	1700	1700	1700
Volume to Capacity	0.06	0.31	0.31	0.50	0.27
Queue Length 95th (m)	1.5	0.0	0.0	0.0	0.0
Control Delay (s)	9.8	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	9.8	0.0		0.0	
Approach LOS	A				

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	43.5%	ICU Level of Service	A	
Analysis Period (min)	15			

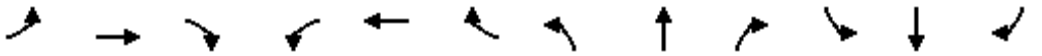
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	53	0	982	1214	10
Future Volume (vph)	0	53	0	982	1214	10
Ideal Flow (vphpl)	1800	1800	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.865			0.999	
Flt Protected						
Satd. Flow (prot)	0	1526	0	3539	3536	0
Flt Permitted						
Satd. Flow (perm)	0	1526	0	3539	3536	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	102.8			98.2	83.4	
Travel Time (s)	7.4			7.1	6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	58	0	1067	1320	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	58	0	1067	1331	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.00	1.00	1.00	1.00
Turning Speed (k/h)	100	100	100			100
Sign Control	Yield			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 44.0%		ICU Level of Service A	
Analysis Period (min) 15			

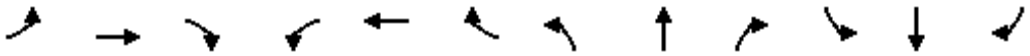
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	53	0	982	1214	10
Future Volume (Veh/h)	0	53	0	982	1214	10
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	58	0	1067	1320	11
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				98	225	
pX, platoon unblocked	0.81	0.74	0.74			
vC, conflicting volume	1859	666	1331			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	780	0	737			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	93	100			
cM capacity (veh/h)	269	800	638			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	58	534	534	880	451
Volume Left	0	0	0	0	0
Volume Right	58	0	0	0	11
cSH	800	1700	1700	1700	1700
Volume to Capacity	0.07	0.31	0.31	0.52	0.27
Queue Length 95th (m)	1.9	0.0	0.0	0.0	0.0
Control Delay (s)	9.9	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	9.9	0.0		0.0	
Approach LOS	A				

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	44.0%	ICU Level of Service	A
Analysis Period (min)	15		



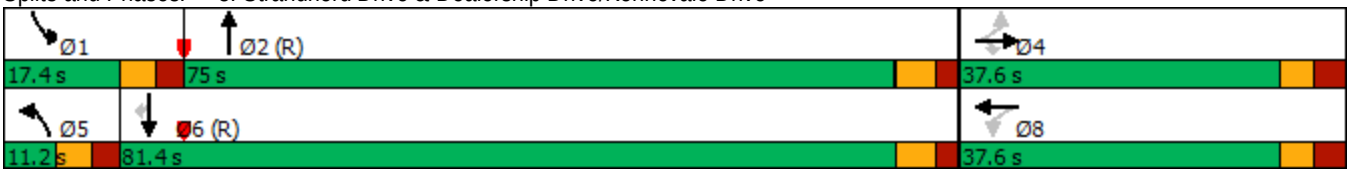
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	10	37	116	31	126	159	1220	100	59	37	88
Future Volume (vph)	32	10	37	116	31	126	159	1220	100	59	37	88
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0		75.0	50.0		0.0	100.0		50.0	100.0		100.0
Storage Lanes	1		1	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.880			0.989				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1286	1200	1530	1660	1433	0	3502	3498	0	1612	3374	1524
Flt Permitted	0.460			0.750			0.950			0.950		
Satd. Flow (perm)	623	1200	1530	1311	1433	0	3502	3498	0	1612	3374	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			78		109			10				96
Link Speed (k/h)		50			40			80			80	
Link Distance (m)		112.1			232.4			273.7			98.2	
Travel Time (s)		8.1			20.9			12.3			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	33%	50%	0%	3%	33%	5%	0%	2%	3%	12%	7%	6%
Adj. Flow (vph)	35	11	40	126	34	137	173	1326	109	64	40	96
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	11	40	126	171	0	173	1435	0	64	40	96
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	

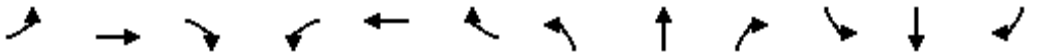


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8								6
Detector Phase	4	4	4	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	37.6	37.6	37.6	37.6	37.6		11.2	70.0		11.2	80.5	80.5
Total Split (s)	37.6	37.6	37.6	37.6	37.6		11.2	75.0		17.4	81.4	81.4
Total Split (%)	28.9%	28.9%	28.9%	28.9%	28.9%		8.6%	57.6%		13.4%	62.5%	62.5%
Maximum Green (s)	31.0	31.0	31.0	31.0	31.0		5.0	68.9		11.2	75.3	75.3
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.5	3.7		3.5	3.7	3.7
All-Red Time (s)	3.3	3.3	3.3	3.3	3.3		2.7	2.4		2.7	2.4	2.4
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)	6.6	6.6	6.6	6.6	6.6		6.2	6.1		6.2	6.1	6.1
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	24.0	24.0	24.0	24.0	24.0			22.0			22.0	22.0
Pedestrian Calls (#/hr)	0	0	0	0	0			0			0	0
Act Effct Green (s)	17.8	17.8	17.8	17.8	17.8		14.3	85.5		10.5	79.2	79.2
Actuated g/C Ratio	0.14	0.14	0.14	0.14	0.14		0.11	0.66		0.08	0.61	0.61
v/c Ratio	0.41	0.07	0.14	0.70	0.59		0.45	0.62		0.50	0.02	0.10
Control Delay	63.9	46.4	2.1	73.4	27.9		59.1	16.6		69.4	11.1	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	63.9	46.4	2.1	73.4	27.9		59.1	16.6		69.4	11.1	2.5
LOS	E	D	A	E	C		E	B		E	B	A
Approach Delay		32.9			47.2			21.2			25.6	
Approach LOS		C			D			C			C	
Queue Length 50th (m)	8.8	2.6	0.0	33.0	15.3		22.9	116.5		16.9	2.1	0.0
Queue Length 95th (m)	19.4	8.2	1.8	52.3	37.6		36.1	178.3		31.5	5.0	7.6
Internal Link Dist (m)		88.1			208.4			249.7			74.2	
Turn Bay Length (m)	75.0		75.0	50.0			100.0			100.0		100.0
Base Capacity (vph)	148	285	423	312	424		385	2300		149	2051	963
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	0.24	0.04	0.09	0.40	0.40		0.45	0.62		0.43	0.02	0.10

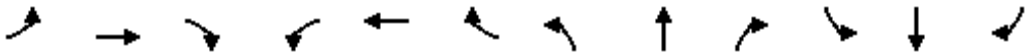
Intersection Summary			
Area Type:	Other		
Cycle Length: 130.2			
Actuated Cycle Length: 130.2			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 130			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 25.6		Intersection LOS: C	
Intersection Capacity Utilization 80.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Strandherd Drive & Dealership Drive/Kennevale Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	9	59	22	31	135	125	1238	16	30	652	7
Future Volume (vph)	71	9	59	22	31	135	125	1238	16	30	652	7
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	85.0		0.0	35.0		0.0	125.0		0.0	150.0		0.0
Storage Lanes	2		0	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00				0.99							
Frt		0.870			0.878			0.998				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3221	1453	0	1710	1538	0	3303	3530	0	1612	3343	1615
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3213	1453	0	1710	1538	0	3303	3530	0	1612	3343	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		64			147			1				100
Link Speed (k/h)		50			50			60			60	
Link Distance (m)		119.6			217.5			141.8			149.2	
Travel Time (s)		8.6			15.7			8.5			9.0	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	9%	0%	0%	2%	6%	2%	7%	12%	8%	0%
Adj. Flow (vph)	77	10	64	24	34	147	136	1346	17	33	709	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	77	74	0	24	181	0	136	1363	0	33	709	8
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

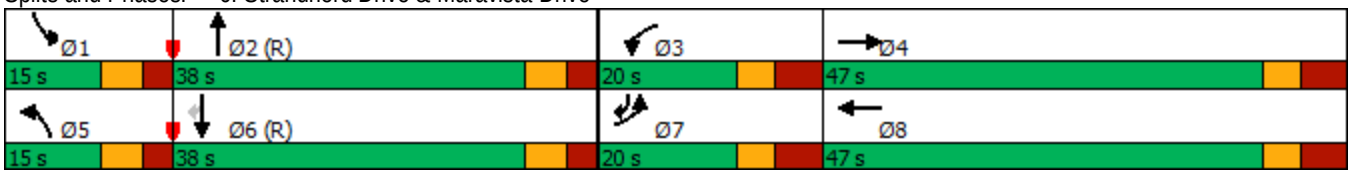


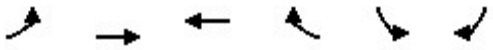
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases												6
Detector Phase	7	4		3	8		5	2		1	6	7
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	10.0		5.0	10.0	5.0
Minimum Split (s)	20.0	47.0		20.0	47.0		15.0	38.0		15.0	38.0	20.0
Total Split (s)	20.0	47.0		20.0	47.0		15.0	38.0		15.0	38.0	20.0
Total Split (%)	16.7%	39.2%		16.7%	39.2%		12.5%	31.7%		12.5%	31.7%	16.7%
Maximum Green (s)	12.4	39.4		12.4	39.4		8.6	31.5		8.6	31.5	12.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	3.3
All-Red Time (s)	4.3	4.3		4.3	4.3		2.7	2.8		2.7	2.8	4.3
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)	7.6	7.6		7.6	7.6		6.4	6.5		6.4	6.5	7.6
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	None
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		32.0			32.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			2			0			0	
Act Effct Green (s)	8.3	18.3		7.2	14.6		9.8	68.8		7.9	61.9	76.7
Actuated g/C Ratio	0.07	0.15		0.06	0.12		0.08	0.57		0.07	0.52	0.64
v/c Ratio	0.35	0.27		0.23	0.57		0.50	0.67		0.31	0.41	0.01
Control Delay	57.2	13.7		58.5	17.8		59.1	24.8		60.3	22.9	0.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	57.2	13.7		58.5	17.8		59.1	24.8		60.3	22.9	0.0
LOS	E	B		E	B		E	C		E	C	A
Approach Delay		35.9			22.5			27.9			24.3	
Approach LOS		D			C			C			C	
Queue Length 50th (m)	9.5	2.3		5.8	8.2		16.8	120.6		8.0	51.6	0.0
Queue Length 95th (m)	17.3	12.6		14.7	22.9		27.4	#290.2		18.6	110.7	0.0
Internal Link Dist (m)		95.6			193.5			117.8			125.2	
Turn Bay Length (m)	85.0			35.0			125.0			150.0		
Base Capacity (vph)	332	522		176	603		277	2024		122	1724	1120
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	0.23	0.14		0.14	0.30		0.49	0.67		0.27	0.41	0.01

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 83 (69%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 26.9	Intersection LOS: C

Intersection Capacity Utilization 78.6% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

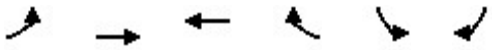
Splits and Phases: 6: Strandherd Drive & Maravista Drive





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	39	177	55	18	2
Future Volume (vph)	1	39	177	55	18	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.968		0.988	
Flt Protected		0.999			0.957	
Satd. Flow (prot)	0	1861	1803	0	1761	0
Flt Permitted		0.999			0.957	
Satd. Flow (perm)	0	1861	1803	0	1761	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		125.1	112.1		54.4	
Travel Time (s)		9.0	8.1		3.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	42	192	60	20	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	43	252	0	22	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Yield	

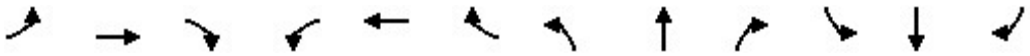
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.7%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	39	177	55	18	2
Future Volume (Veh/h)	1	39	177	55	18	2
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	42	192	60	20	2
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			112			
pX, platoon unblocked						
vC, conflicting volume	252				266	222
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	252				266	222
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				97	100
cM capacity (veh/h)	1313				723	818

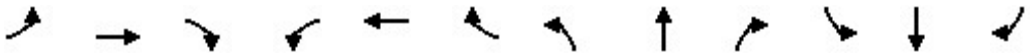
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	43	252	22
Volume Left	1	0	20
Volume Right	0	60	2
cSH	1313	1700	730
Volume to Capacity	0.00	0.15	0.03
Queue Length 95th (m)	0.0	0.0	0.7
Control Delay (s)	0.2	0.0	10.1
Lane LOS	A		B
Approach Delay (s)	0.2	0.0	10.1
Approach LOS			B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	22.7%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	35	7	21	95	17	10	0	7	1	0	2
Future Volume (vph)	1	35	7	21	95	17	10	0	7	1	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1800	1800	1800	1800	1800	1800
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977			0.983			0.943			0.910	
Flt Protected		0.999			0.992			0.972			0.984	
Satd. Flow (prot)	0	1818	0	0	1816	0	0	1618	0	0	1580	0
Flt Permitted		0.999			0.992			0.972			0.984	
Satd. Flow (perm)	0	1818	0	0	1816	0	0	1618	0	0	1580	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		183.9			149.7			178.5			101.5	
Travel Time (s)		13.2			10.8			12.9			7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	38	8	23	103	18	11	0	8	1	0	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	47	0	0	144	0	0	19	0	0	3	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.07	1.07	1.07	1.07	1.07	1.07
Turning Speed (k/h)	100		100	100		100	100		100	100		100
Sign Control		Free			Free			Stop			Stop	

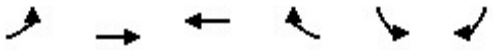
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.9%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	35	7	21	95	17	10	0	7	1	0	2
Future Volume (Veh/h)	1	35	7	21	95	17	10	0	7	1	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	38	8	23	103	18	11	0	8	1	0	2
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)					387							
pX, platoon unblocked												
vC, conflicting volume	121			46			204	211	42	210	206	112
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	121			46			204	211	42	210	206	112
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	99	100	100	100
cM capacity (veh/h)	1467			1562			744	676	1029	733	680	941

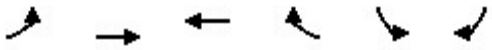
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	47	144	19	3
Volume Left	1	23	11	1
Volume Right	8	18	8	2
cSH	1467	1562	842	860
Volume to Capacity	0.00	0.01	0.02	0.00
Queue Length 95th (m)	0.0	0.4	0.6	0.1
Control Delay (s)	0.2	1.3	9.4	9.2
Lane LOS	A	A	A	A
Approach Delay (s)	0.2	1.3	9.4	9.2
Approach LOS			A	A

Intersection Summary				
Average Delay	1.9			
Intersection Capacity Utilization	23.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	38	131	47	2	2
Future Volume (vph)	1	38	131	47	2	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1800
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.964		0.932	
Flt Protected		0.999			0.976	
Satd. Flow (prot)	0	1861	1796	0	1605	0
Flt Permitted		0.999			0.976	
Satd. Flow (perm)	0	1861	1796	0	1605	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		149.7	125.1		120.7	
Travel Time (s)		10.8	9.0		8.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	41	142	51	2	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	42	193	0	4	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.07	1.07
Turning Speed (k/h)	100			100	100	100
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 19.8%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	38	131	47	2	2
Future Volume (Veh/h)	1	38	131	47	2	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	41	142	51	2	2
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			237			
pX, platoon unblocked						
vC, conflicting volume	193				210	168
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	193				210	168
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1380				777	877

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	42	193	4
Volume Left	1	0	2
Volume Right	0	51	2
cSH	1380	1700	824
Volume to Capacity	0.00	0.11	0.00
Queue Length 95th (m)	0.0	0.0	0.1
Control Delay (s)	0.2	0.0	9.4
Lane LOS	A		A
Approach Delay (s)	0.2	0.0	9.4
Approach LOS			A

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		19.8%	ICU Level of Service A
Analysis Period (min)		15	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	15	0	1378	705	28
Future Volume (vph)	0	15	0	1378	705	28
Ideal Flow (vphpl)	1800	1800	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.865			0.994	
Flt Protected						
Satd. Flow (prot)	0	1526	0	3539	3518	0
Flt Permitted						
Satd. Flow (perm)	0	1526	0	3539	3518	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	133.2			83.4	141.8	
Travel Time (s)	9.6			6.0	10.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	16	0	1498	766	30
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	16	0	1498	796	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			7.2	7.2	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.00	1.00	1.00	1.00
Turning Speed (k/h)	100	100	100			100
Sign Control	Yield			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	41.4%	ICU Level of Service	A
Analysis Period (min)	15		

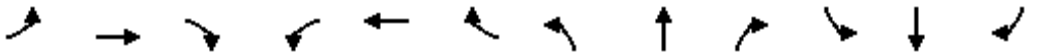
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	15	0	1378	705	28
Future Volume (Veh/h)	0	15	0	1378	705	28
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	16	0	1498	766	30
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				182	142	
pX, platoon unblocked	0.80	0.87	0.87			
vC, conflicting volume	1530	398	796			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	419	8	466			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	100			
cM capacity (veh/h)	448	932	950			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	16	749	749	511	285
Volume Left	0	0	0	0	0
Volume Right	16	0	0	0	30
cSH	932	1700	1700	1700	1700
Volume to Capacity	0.02	0.44	0.44	0.30	0.17
Queue Length 95th (m)	0.4	0.0	0.0	0.0	0.0
Control Delay (s)	8.9	0.0	0.0	0.0	0.0
Lane LOS	A				
Approach Delay (s)	8.9	0.0		0.0	
Approach LOS	A				

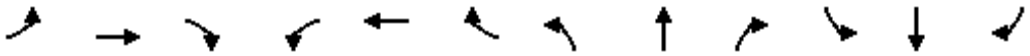
Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	41.4%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	16	0	1378	711	9
Future Volume (vph)	0	16	0	1378	711	9
Ideal Flow (vphpl)	1800	1800	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.865			0.998	
Flt Protected						
Satd. Flow (prot)	0	1526	0	3539	3532	0
Flt Permitted						
Satd. Flow (perm)	0	1526	0	3539	3532	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	102.8			98.2	83.4	
Travel Time (s)	7.4			7.1	6.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	17	0	1498	773	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	17	0	1498	783	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			3.6	3.6	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.00	1.00	1.00	1.00
Turning Speed (k/h)	100	100	100			100
Sign Control	Yield			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	41.4%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	28	64	149	22	93	66	869	153	89	1233	46
Future Volume (vph)	95	28	64	149	22	93	66	869	153	89	1233	46
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	75.0		75.0	50.0		0.0	100.0		50.0	100.0		100.0
Storage Lanes	1		1	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Frt			0.850		0.879			0.978				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1286	1200	1530	1660	1433	0	3502	3456	0	1612	3374	1524
Flt Permitted	0.596			0.738			0.950			0.950		
Satd. Flow (perm)	807	1200	1530	1290	1433	0	3502	3456	0	1612	3374	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			113		101			23				71
Link Speed (k/h)		50			40			80			80	
Link Distance (m)		112.1			232.4			273.7			98.2	
Travel Time (s)		8.1			20.9			12.3			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	33%	50%	0%	3%	33%	5%	0%	2%	3%	12%	7%	6%
Adj. Flow (vph)	103	30	70	162	24	101	72	945	166	97	1340	50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	103	30	70	162	125	0	72	1111	0	97	1340	50
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.6			3.6			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2	1	1	2		1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0	2.0	2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6	2.0	2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4			8		5	2		1	6	

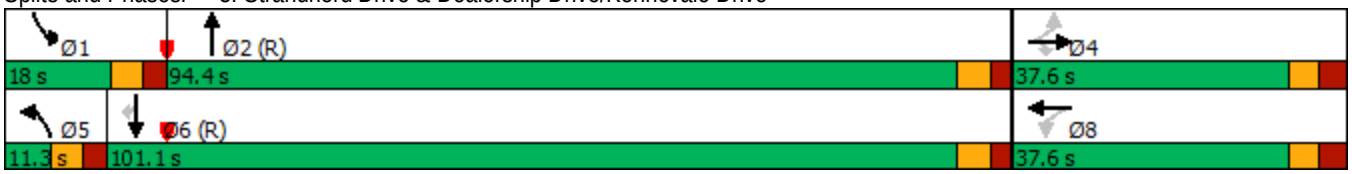


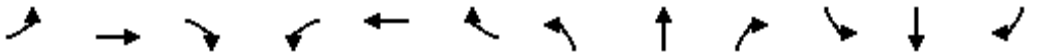
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4		4	8								6
Detector Phase	4	4	4	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	37.6	37.6	37.6	37.6	37.6		11.2	94.0		12.0	100.5	100.5
Total Split (s)	37.6	37.6	37.6	37.6	37.6		11.3	94.4		18.0	101.1	101.1
Total Split (%)	25.1%	25.1%	25.1%	25.1%	25.1%		7.5%	62.9%		12.0%	67.4%	67.4%
Maximum Green (s)	31.0	31.0	31.0	31.0	31.0		5.1	88.3		11.8	95.0	95.0
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.5	3.7		3.5	3.7	3.7
All-Red Time (s)	3.3	3.3	3.3	3.3	3.3		2.7	2.4		2.7	2.4	2.4
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)	6.6	6.6	6.6	6.6	6.6		6.2	6.1		6.2	6.1	6.1
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0			7.0	7.0
Flash Dont Walk (s)	24.0	24.0	24.0	24.0	24.0			22.0			22.0	22.0
Pedestrian Calls (#/hr)	2	2	2	0	0			1			0	0
Act Effct Green (s)	23.6	23.6	23.6	23.6	23.6		7.1	94.6		12.9	100.3	100.3
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.16		0.05	0.63		0.09	0.67	0.67
v/c Ratio	0.81	0.16	0.21	0.80	0.40		0.43	0.51		0.70	0.59	0.05
Control Delay	101.6	53.7	2.8	87.1	17.9		77.7	16.5		92.0	15.7	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	101.6	53.7	2.8	87.1	17.9		77.7	16.5		92.0	15.7	1.0
LOS	F	D	A	F	B		E	B		F	B	A
Approach Delay		60.4			57.0			20.3			20.2	
Approach LOS		E			E			C			C	
Queue Length 50th (m)	31.5	8.2	0.0	49.4	6.5		11.3	97.7		29.6	118.4	0.0
Queue Length 95th (m)	#53.0	17.8	2.5	73.7	25.5		#22.2	123.6		#61.4	149.6	2.8
Internal Link Dist (m)		88.1			208.4			249.7			74.2	
Turn Bay Length (m)	75.0		75.0	50.0			100.0			100.0		100.0
Base Capacity (vph)	166	248	405	266	376		166	2187		143	2256	1042
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	0.62	0.12	0.17	0.61	0.33		0.43	0.51		0.68	0.59	0.05

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 150			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 26.2		Intersection LOS: C	
Intersection Capacity Utilization 69.4%		ICU Level of Service C	
Analysis Period (min) 15			

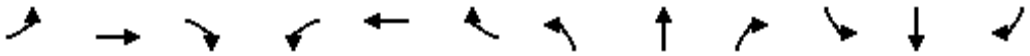
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Strandherd Drive & Dealership Drive/Kennevale Drive





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	67	243	18	57	50	287	771	26	143	1038	30
Future Volume (vph)	80	67	243	18	57	50	287	771	26	143	1038	30
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1900	1900	1900	1900	1900	1900
Storage Length (m)	85.0		0.0	35.0		0.0	125.0		0.0	150.0		0.0
Storage Lanes	2		0	1		0	2		0	1		1
Taper Length (m)	7.5			7.5			7.5			7.5		
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00				0.99							
Frt		0.882			0.930			0.995				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3221	1483	0	1710	1648	0	3303	3516	0	1612	3343	1615
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3212	1483	0	1710	1648	0	3303	3516	0	1612	3343	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		162			39			3				100
Link Speed (k/h)		50			50			80			80	
Link Distance (m)		119.6			217.5			141.8			149.2	
Travel Time (s)		8.6			15.7			6.4			6.7	
Confl. Peds. (#/hr)	2					2						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	3%	0%	9%	0%	0%	2%	6%	2%	7%	12%	8%	0%
Adj. Flow (vph)	87	73	264	20	62	54	312	838	28	155	1128	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	337	0	20	116	0	312	866	0	155	1128	33
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.2			7.2			7.2			7.2	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.07	1.07	1.07	1.07	1.07	1.07	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Number of Detectors	1	2		1	2		1	2		1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (m)	2.0	10.0		2.0	10.0		2.0	10.0		2.0	10.0	2.0
Trailing Detector (m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Position(m)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	2.0	0.6		2.0	0.6		2.0	0.6		2.0	0.6	2.0
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		9.4			9.4			9.4			9.4	
Detector 2 Size(m)		0.6			0.6			0.6			0.6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

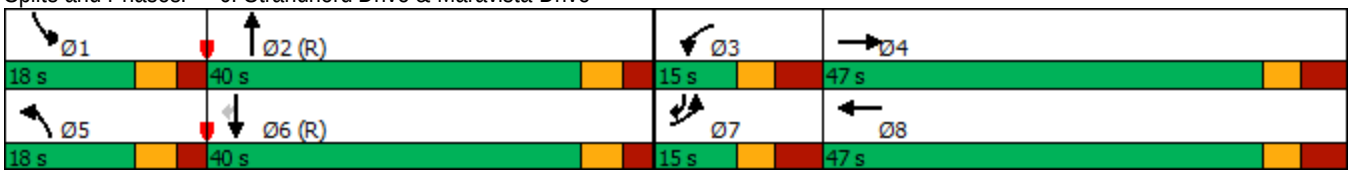


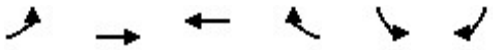
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases												6
Detector Phase	7	4		3	8		5	2		1	6	7
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		5.0	10.0		5.0	10.0	5.0
Minimum Split (s)	15.0	47.0		15.0	47.0		18.0	40.0		18.0	40.0	15.0
Total Split (s)	15.0	47.0		15.0	47.0		18.0	40.0		18.0	40.0	15.0
Total Split (%)	12.5%	39.2%		12.5%	39.2%		15.0%	33.3%		15.0%	33.3%	12.5%
Maximum Green (s)	7.4	39.4		7.4	39.4		11.6	33.5		11.6	33.5	7.4
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	3.3
All-Red Time (s)	4.3	4.3		4.3	4.3		2.7	2.8		2.7	2.8	4.3
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)	7.6	7.6		7.6	7.6		6.4	6.5		6.4	6.5	7.6
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	None
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		32.0			32.0			17.0			17.0	
Pedestrian Calls (#/hr)		0			2			0			0	
Act Effct Green (s)	7.2	27.2		6.6	18.4		16.6	48.7		17.6	49.8	63.4
Actuated g/C Ratio	0.06	0.23		0.06	0.15		0.14	0.41		0.15	0.42	0.53
v/c Ratio	0.45	0.73		0.21	0.41		0.69	0.61		0.66	0.81	0.04
Control Delay	62.3	30.9		59.3	30.7		57.9	32.7		62.8	38.8	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	62.3	30.9		59.3	30.7		57.9	32.7		62.8	38.8	0.1
LOS	E	C		E	C		E	C		E	D	A
Approach Delay		37.3			34.9			39.4			40.6	
Approach LOS		D			C			D			D	
Queue Length 50th (m)	10.9	41.5		4.8	18.5		37.7	80.7		36.0	117.4	0.0
Queue Length 95th (m)	19.7	66.4		13.2	28.3		#68.8	#142.6		#82.2	#223.0	0.0
Internal Link Dist (m)		95.6			193.5			117.8			125.2	
Turn Bay Length (m)	85.0			35.0			125.0			150.0		
Base Capacity (vph)	198	595		105	567		455	1429		236	1386	903
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	0.44	0.57		0.19	0.20		0.69	0.61		0.66	0.81	0.04

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 83 (69%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 39.4	Intersection LOS: D

Intersection Capacity Utilization 73.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

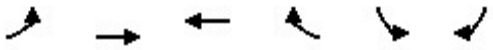
Splits and Phases: 6: Strandherd Drive & Maravista Drive





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	119	98	39	54	6
Future Volume (vph)	1	119	98	39	54	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.962		0.986	
Flt Protected					0.957	
Satd. Flow (prot)	0	1863	1792	0	1758	0
Flt Permitted					0.957	
Satd. Flow (perm)	0	1863	1792	0	1758	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		125.1	112.1		54.4	
Travel Time (s)		9.0	8.1		3.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	129	107	42	59	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	130	149	0	66	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.6	3.6		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Yield	

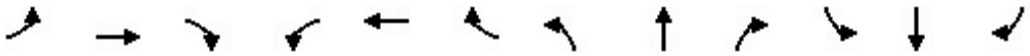
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 17.6%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	119	98	39	54	6
Future Volume (Veh/h)	1	119	98	39	54	6
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	129	107	42	59	7
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			112			
pX, platoon unblocked						
vC, conflicting volume	149				259	128
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	149				259	128
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				92	99
cM capacity (veh/h)	1432				729	922

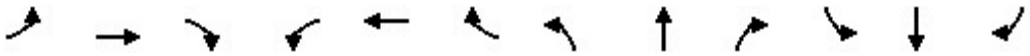
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	130	149	66
Volume Left	1	0	59
Volume Right	0	42	7
cSH	1432	1700	746
Volume to Capacity	0.00	0.09	0.09
Queue Length 95th (m)	0.0	0.0	2.3
Control Delay (s)	0.1	0.0	10.3
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	10.3
Approach LOS			B

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	17.6%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	94	3	13	62	8	4	0	27	4	0	2
Future Volume (vph)	1	94	3	13	62	8	4	0	27	4	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1800	1800	1800	1800	1800	1800
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.986			0.881			0.955	
Flt Protected					0.992			0.994			0.968	
Satd. Flow (prot)	0	1855	0	0	1822	0	0	1545	0	0	1631	0
Flt Permitted					0.992			0.994			0.968	
Satd. Flow (perm)	0	1855	0	0	1822	0	0	1545	0	0	1631	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		183.9			149.7			178.5			101.5	
Travel Time (s)		13.2			10.8			12.9			7.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	102	3	14	67	9	4	0	29	4	0	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	106	0	0	90	0	0	33	0	0	6	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.07	1.07	1.07	1.07	1.07	1.07
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

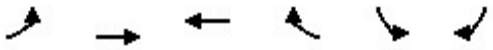
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.1%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	94	3	13	62	8	4	0	27	4	0	2
Future Volume (Veh/h)	1	94	3	13	62	8	4	0	27	4	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	102	3	14	67	9	4	0	29	4	0	2
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)					387							
pX, platoon unblocked												
vC, conflicting volume	76			105			207	210	104	234	206	72
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	76			105			207	210	104	234	206	72
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	97	99	100	100
cM capacity (veh/h)	1523			1486			743	681	951	693	683	991

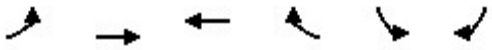
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	106	90	33	6
Volume Left	1	14	4	4
Volume Right	3	9	29	2
cSH	1523	1486	920	770
Volume to Capacity	0.00	0.01	0.04	0.01
Queue Length 95th (m)	0.0	0.2	0.9	0.2
Control Delay (s)	0.1	1.2	9.1	9.7
Lane LOS	A	A	A	A
Approach Delay (s)	0.1	1.2	9.1	9.7
Approach LOS			A	A

Intersection Summary				
Average Delay	2.0			
Intersection Capacity Utilization	21.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1	116	81	23	4	2
Future Volume (vph)	1	116	81	23	4	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1800	1800
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.970		0.955	
Flt Protected					0.968	
Satd. Flow (prot)	0	1863	1807	0	1631	0
Flt Permitted					0.968	
Satd. Flow (perm)	0	1863	1807	0	1631	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		149.7	125.1		120.7	
Travel Time (s)		10.8	9.0		8.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	126	88	25	4	2
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	127	113	0	6	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.6	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.07	1.07
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.9%		ICU Level of Service A	
Analysis Period (min) 15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	116	81	23	4	2
Future Volume (Veh/h)	1	116	81	23	4	2
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	126	88	25	4	2
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			237			
pX, platoon unblocked						
vC, conflicting volume	113				228	100
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	113				228	100
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1476				759	955

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	127	113	6
Volume Left	1	0	4
Volume Right	0	25	2
cSH	1476	1700	815
Volume to Capacity	0.00	0.07	0.01
Queue Length 95th (m)	0.0	0.0	0.2
Control Delay (s)	0.1	0.0	9.5
Lane LOS	A		A
Approach Delay (s)	0.1	0.0	9.5
Approach LOS			A

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	16.9%	ICU Level of Service	A
Analysis Period (min)	15		

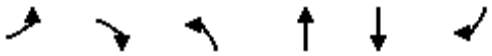
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	44	0	1058	1269	29
Future Volume (vph)	0	44	0	1058	1269	29
Ideal Flow (vphpl)	1800	1800	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.865			0.997	
Flt Protected						
Satd. Flow (prot)	0	1526	0	3539	3529	0
Flt Permitted						
Satd. Flow (perm)	0	1526	0	3539	3529	0
Link Speed (k/h)	50			80	80	
Link Distance (m)	133.2			83.4	141.8	
Travel Time (s)	9.6			3.8	6.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	48	0	1150	1379	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	48	0	1150	1411	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			7.2	7.2	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.00	1.00	1.00	1.00
Turning Speed (k/h)	25	15	25			15
Sign Control	Yield			Free	Free	

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

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	44	0	1058	1269	29
Future Volume (Veh/h)	0	44	0	1058	1269	29
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	48	0	1150	1379	32
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				182	142	
pX, platoon unblocked	0.77	0.68	0.68			
vC, conflicting volume	1970	706	1411			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	687	0	674			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	94	100			
cM capacity (veh/h)	292	741	624			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	48	575	575	919	492
Volume Left	0	0	0	0	0
Volume Right	48	0	0	0	32
cSH	741	1700	1700	1700	1700
Volume to Capacity	0.06	0.34	0.34	0.54	0.29
Queue Length 95th (m)	1.7	0.0	0.0	0.0	0.0
Control Delay (s)	10.2	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	10.2	0.0		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	46.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	53	0	1058	1303	10
Future Volume (Veh/h)	0	53	0	1058	1303	10
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	58	0	1150	1416	11
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)				98	225	
pX, platoon unblocked	0.77	0.69	0.69			
vC, conflicting volume	1996	714	1427			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	712	0	704			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	92	100			
cM capacity (veh/h)	283	743	609			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	58	575	575	944	483
Volume Left	0	0	0	0	0
Volume Right	58	0	0	0	11
cSH	743	1700	1700	1700	1700
Volume to Capacity	0.08	0.34	0.34	0.56	0.28
Queue Length 95th (m)	2.0	0.0	0.0	0.0	0.0
Control Delay (s)	10.3	0.0	0.0	0.0	0.0
Lane LOS	B				
Approach Delay (s)	10.3	0.0		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		

APPENDIX E – TDM FORMS

McINTOSH PERRY

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

Legend

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

		TDM-supportive design & infrastructure measures: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	1.	**WALKING & CYCLING: ROUTES**	
	1.1	**Building location & access points**	
BASIC	1.1.1	Locate building close to the street, and do not locate parking areas between the street and building entrances	☑
BASIC	1.1.2	Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	☑
BASIC	1.1.3	Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	☑
	1.2	**Facilities for walking & cycling**	
REQUIRED	1.2.1	Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations *(see Official Plan policy 4.3.3)*	☐
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: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3	Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks *(see Official Plan policy 4.3.10)*	☑
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: *Non-residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	2.	**WALKING & CYCLING: END-OF-TRIP FACILITIES**	
	2.1	**Bicycle parking**	
REQUIRED	2.1.1	Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible *(see Official Plan policy 4.3.6)*	☑
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 commuter cyclists (assuming the cycling mode share target is met), plus the expected peak number of customer/visitor cyclists	☑
BETTER	2.1.5	Provide bicycle parking spaces equivalent to the expected number of commuter and customer/visitor cyclists, plus an additional buffer (e.g. 25 percent extra) to encourage other cyclists and ensure adequate capacity in peak cycling season	☑
	2.2	**Secure bicycle parking**	
REQUIRED	2.2.1	Where more than 50 bicycle parking spaces are provided for a single office building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers *(see Zoning By-law Section 111)*	☐
BETTER	2.2.2	Provide secure bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met)	☑
	2.3	**Shower & change facilities**	
BASIC	2.3.1	Provide shower and change facilities for the use of active commuters	☐
BETTER	2.3.2	In addition to shower and change facilities, provide dedicated lockers, grooming stations, drying racks and laundry facilities for the use of active commuters	☐
	2.4	**Bicycle repair station**	
BETTER	2.4.1	Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	☐

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

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

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

Legend

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

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

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

		TDM measures: *Non-residential developments*	Check if proposed & add descriptions
	1.	**TDM PROGRAM MANAGEMENT**	
	1.1	**Program coordinator**	
BASIC ★	1.1.1	Designate an internal coordinator, or contract with an external coordinator	☐
	1.2	**Travel surveys**	
BETTER	1.2.1	Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	☐
	2.	**WALKING AND CYCLING**	
	2.1	**Information on walking/cycling routes & destinations**	
BASIC	2.1.1	Display local area maps with walking/cycling access routes and key destinations at major entrances	☐
	2.2	**Bicycle skills training**	
		Commuter travel	
BETTER ★	2.2.1	Offer on-site cycling courses for commuters, or subsidize off-site courses	☐
	2.3	**Valet bike parking**	
		Visitor travel	
BETTER	2.3.1	Offer secure valet bike parking during public events when demand exceeds fixed supply (e.g. for festivals, concerts, games)	☐

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

			TDM measures: *Non-residential developments*	Check if proposed & add descriptions
		4.	**RIDESHARING**	
		4.1	**Ridematching service**	
			Commuter travel	
BASIC	★	4.1.1	Provide a dedicated ridematching portal at OttawaRideMatch.com	☐
		4.2	**Carpool parking price incentives**	
			Commuter travel	
BETTER		4.2.1	Provide discounts on parking costs for registered carpools	☐
		4.3	**Vanpool service**	
			Commuter travel	
BETTER		4.3.1	Provide a vanpooling service for long-distance commuters	☐
		5.	**CARSHARING & BIKESHARING**	
		5.1	**Bikeshare stations & memberships**	
BETTER		5.1.1	Contract with provider to install on-site bikeshare station for use by commuters and visitors	☐
			Commuter travel	
BETTER		5.1.2	Provide employees with bikeshare memberships for local business travel	☐
		5.2	**Carshare vehicles & memberships**	
			Commuter travel	
BETTER		5.2.1	Contract with provider to install on-site carshare vehicles and promote their use by tenants	☐
BETTER		5.2.2	Provide employees with carshare memberships for local business travel	☐
		6.	**PARKING**	
		6.1	**Priced parking**	
			Commuter travel	
BASIC	★	6.1.1	Charge for long-term parking (daily, weekly, monthly)	☐
BASIC		6.1.2	Unbundle parking cost from lease rates at multi-tenant sites	☐
			Visitor travel	
BETTER		6.1.3	Charge for short-term parking (hourly)	☐

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