

Transportation Report – Stittsville West Lands

Official Plan Amendment - Urban and Village Boundary Expansion



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Executive Summary

This Transportation Report has been prepared for Claridge Homes as part of an Urban and Village Boundary Expansion Official Plan Amendment (OPA) application for the lands located at 6435 Fernbank Road and 6437 Flewellyn Road of approximately 112 hectares, at the southwestern edge of Stittsville.

This Report reviews the available transportation capacity through an evaluation of whether the existing and planned transportation infrastructure (such as roads and public transit) can support the proposed development on the subject lands, and recommends transportation improvements to serve the subject lands and other general transportation improvements. The Report's study horizons are existing 2025, future background 2046, and future total 2046.

With the current conceptual unit breakdown for the subject lands, the lands are projected to generate in total: 955 two-way vehicular trips in the AM peak hour and 1,046 two-way vehicular trips in the PM peak hour, 487 two-way transit trips in the AM peak hour and 414 two-way transit trips in the PM peak hour, 71 two-way cycling trips in the AM peak hour and 70 two-way cycling trips in the PM peak hour, and 274 two-way walking trips in the AM peak hour and 293 two-way walking trips in the PM peak hour.

In future total 2046 conditions, traffic operations issues are noted for the eastbound left at Carp & Hazeldean in the AM peak hour, several movements at Stittsville Main & Carp in the PM peak hour, westbound through at Fernbank & Robert Grant in the PM peak hour, however can be mitigated or resolved through adjustments to signal timing. Large significant developments in southern Stittsville are projected to result in excessive delays at Shea & Flewellyn in future background conditions and should be reviewed for a roundabout or traffic signal control. With the addition of the trips from the subject lands in future total conditions, Stittsville Main & Flewellyn should be reviewed for a roundabout or traffic signal in future total conditions.

Custom screenlines for the subject lands were analyzed to assess network capacity. With the site-generated trips from the subject lands, the transit network will reach capacity and the roadway network will remain well under capacity in future total conditions. Therefore, site-generated trips will effectively use future residual transit and roadway capacity at a network level.

Minor changes to TMP concepts are recommended based on future background MMLOS analysis and the City's Urban and Village Boundary Expansion – Infrastructure Capacity Assessment TOR, to better support transit and active transportation usage to and from the lands: advance the planned Transit Priority Corridors in the study area, extend the limits of the planned Fernbank Road urbanization to the subject lands, and consider urbanizing Flewellyn Road between the subject lands and Shea Road, and Stittsville Main Street between West Ridge Drive and Flewellyn Road.

Lastly, at a more site-specific level, it is recommended to secure active transportation connections to the Trans Canada Trail from the lands to support active transportation and increase frequency near the subject lands for Route 61 and service on West Ridge Drive to accommodate the site-generated transit trips within reasonable walking distance from the lands, based on additional route capacity analysis.



1 Introduction

This Transportation Report has been prepared for Claridge Homes as part of an Urban and Village Boundary Expansion Official Plan Amendment (OPA) application for the Stittsville West Lands. The OPA application seeks to expand the City of Ottawa's existing urban boundary to include the subject lands.

The subject lands of approximately 112 hectares are identified in **Figure 1** and are located at 6435 Fernbank Road and 6437 Flewellyn Road. They are generally located west of West Ridge Drive and Stittsville Main Street, north of Flewellyn Road, and south of the Trans Canada Trail.

The purpose of this Transportation Report is to assess the available transportation capacity through an evaluation of whether the existing and planned transportation infrastructure (such as roads and public transit) can support the proposed development on the subject lands. It will also identify the potential for transportation improvements that will serve not just the subject lands, but the City of Ottawa as a whole.



Figure 1 – Subject Lands

1.1 Background

On August 22, 2024, the provincial Minister of Housing issued the 2024 Provincial Planning Statement (PPS), which took effect on October 20, 2024. The PPS permits private landowners to apply for Urban Boundary Expansions. Previously, this permission was only granted to municipalities through a comprehensive review of their Official Plan (OP).



The subject lands were submitted for review during the preparation of Ottawa's 2022 Official Plan, however the lands were ultimately not added to the City's urban boundaries based on its scoring. Since 2022, demographic trends and legislative changes to the growth projection methodology have resulted in an identified shortfall in the City's land supply available to accommodate residential growth forecasted over the next three years (servicing capacity and suitably zoned) and fifteen years (designated and available).

1.2 Land Use

As per the City of Ottawa's OP Schedule B9 shown in **Figure 2**, the subject lands are currently in the Rural Transect and designated as Rural Countryside. The northwest corner of the lands is designated as Greenspace.

As per the Zoning By-Law 2008-250, also shown in **Figure 2**, the subject lands are categorized as Rural Countryside Zone (RU). Surrounding the subject lands are various zoning uses. The existing neighbourhood east of the subject lands is classified as residential. The existing residential neighbourhood to the west of the lands is rural residential. There are also an Environmental Zone and Industrial Zone nearby.

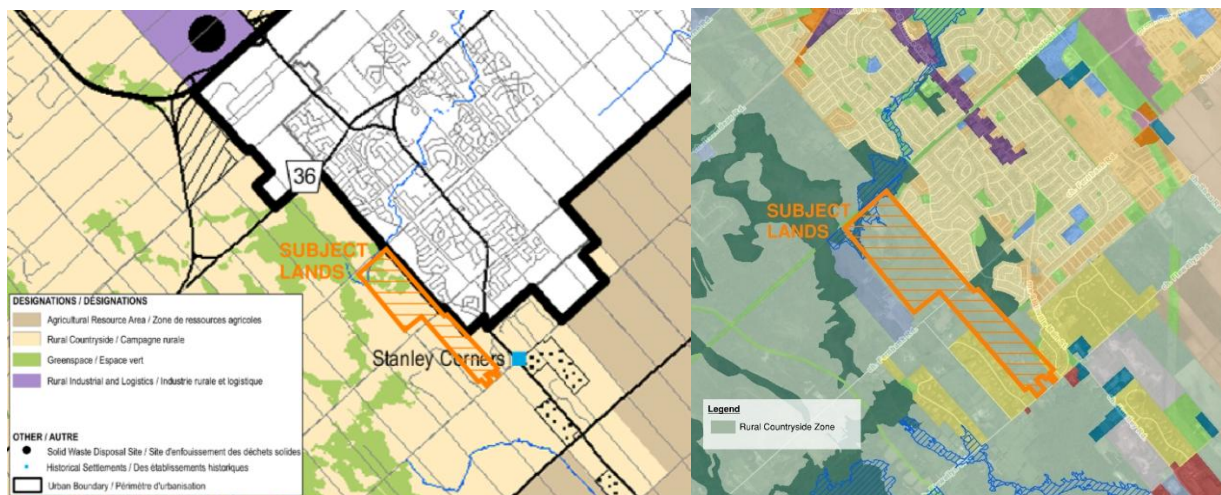


Figure 2 – Official Plan Schedule B9 (Left) and Zoning By-Law 2008-250 (Right)

Within a 5km radius of the subject lands, there are four grocery stores, several industrial and commercial areas that provide services, amenities, and employment opportunities, four community centres, the Ottawa Public Library – Stittsville Branch, and thirteen primary/secondary schools.

1.3 Conceptual Plans for the Subject Lands

The conceptual plans for the subject lands include 2,391 dwelling units for the developable area with an approximate unit breakdown shown in **Table 1**. No employment or commercial uses have been assumed at this time. Additionally, there is no information available at this time on the planned phasing, occupancy date, or a conceptual transportation network for the subject lands.

Table 1 – Conceptual Unit Breakdown

Unit Type	Units	Percentage
Single-Detached	1,195	50%
Townhouse	717	30%
Stacked Townhouse	478	20%
TOTAL	2,391	100%

The total developable area is 61% of the total area of the subject lands, with the remaining 39% of the lands used for infrastructure and amenities, including roadways, stormwater pond facility, parks, and open space.

However, it should be noted that there is a portion of the lands that includes provincially significant wetlands (PSW). This means that a portion of the lands may not be developable and are subject to further environmental studies. The conceptual unit breakdown as shown above may change depending on these further studies.



2 Study Area and Time Periods

The study area for this Transportation Report generally encompasses a 5km radius from the centroid of the subject lands. The selected study intersections within this study area are:

Signalized

- Hazeldean Road & West Ridge Drive
- Hazeldean Road & Carp Road
- Hazeldean Road & Stittsville Main Street
- Stittsville Main Street & Carp Road
- Stittsville Main Street & Abbott Street
- Stittsville Main Street & Fernbank Road
- Stittsville Main Street & West Ridge Drive
- Fernbank Road & Robert Grant Avenue

Unsignalized

- Stittsville Main Street/Huntley Road & Flewellyn Road
- Huntley Road & Fallowfield Road
- Flewellyn Road & Shea Road

The study horizons for this Report are:

- Existing 2025,
- Future Background 2046, and
- Future Total 2046.

The time periods for this Report are:

- AM peak hour, and
- PM peak hour.



3 Existing Conditions

3.1 Roadways

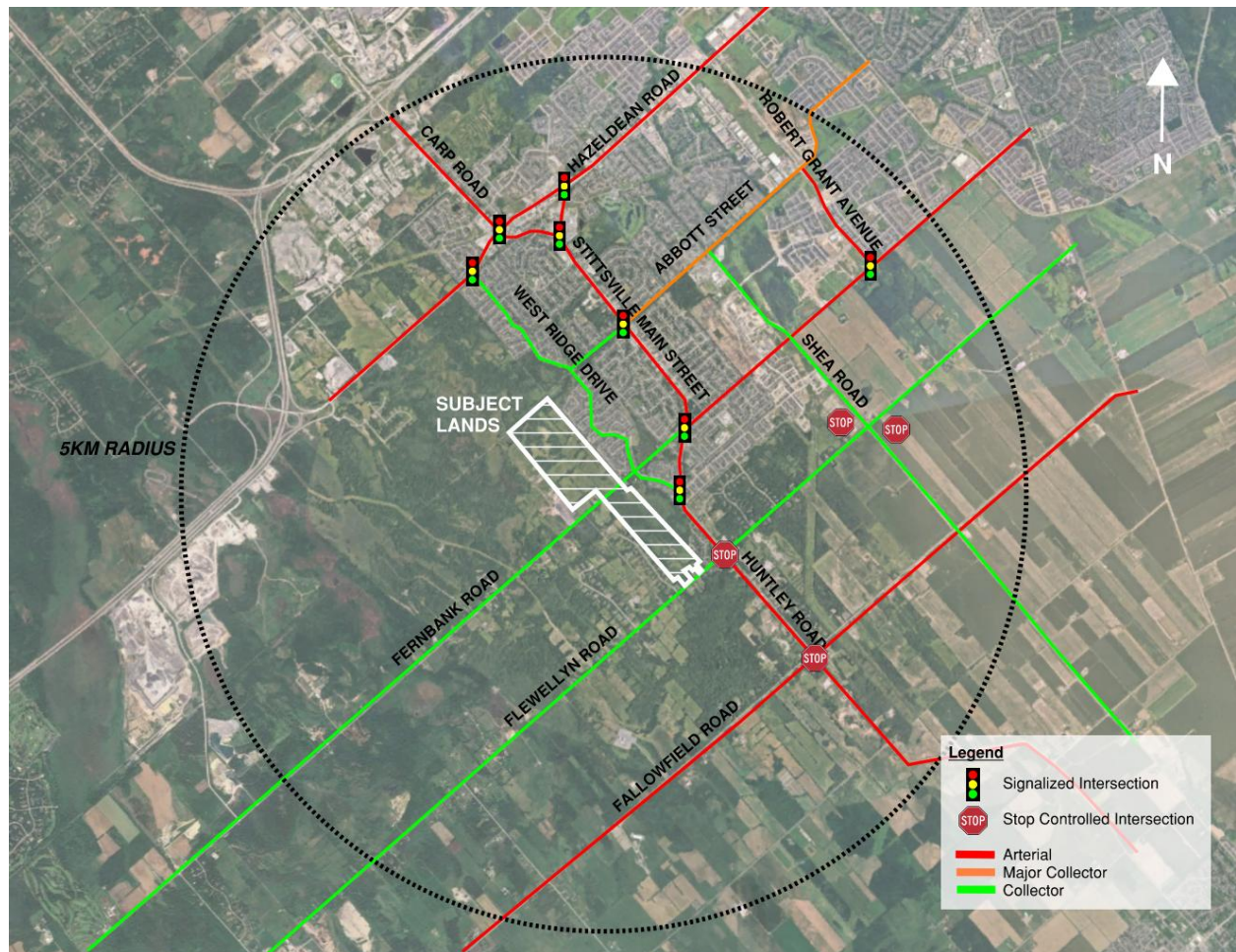


Figure 3 – Study Area Roadways and Intersections

Key roadways at the study area intersections are shown in **Figure 3** and described below.

Abbott Street is a 2-lane east-west roadway from West Ridge Drive to Terry Fox Drive. It is a major collector posted at 40km/h east of Stittsville Main Street, and a collector posted at 50km/h west of Stittsville Main Street. It is not a truck route.

Carp Road is a north-south arterial that serves as Stittsville's connection to/from Highway 417. This is a 2-lane north-south roadway posted at 60km/h. Carp Road also serves a large industrial area immediately south of the Highway. It is a full load truck route.



Fallowfield Road is a 2-lane east-west arterial roadway with a posted speed limit of 80km/h. It connects to Highway 416, Strandherd Drive, and the broader Barrhaven community to the east of the subject lands. West of Huntley is a full load truck route, east of Huntley is a restricted load route.

Fernbank Road is a 2-lane east-west collector roadway, with a posted speed limit of 60km/h between Black's Side Road and West Ridge Drive, 40 km/h between West Ridge Drive and Cope Drive/Edenwylde Drive, and 60km/h east of Cope Drive/Edenwylde Drive. Fernbank Road terminates at Eagleson Drive to the east in Kanata. It is not a truck route.

Flewellyn Road is a 2-lane east-west collector roadway posted at 80 km/h. It also terminates at Eagleson Drive to the east in Kanata. It is not a truck route.

Hazeldean Road is an east-west arterial roadway that connects Stittsville to Highway 7 to the west and to the Kanata community to the east. It varies from a 2- to 4-lane cross-section. It is posted at 80km/h, and reduced to 60km/h when entering the Stittsville urban boundary. It is a full load truck route.

Robert Grant Avenue is a north-south 2-lane arterial roadway between Fernbank Road and Hazeldean Road. The section from Abbott Street to Hazeldean Road is not yet fully constructed. It is posted at 60 km/h. It is not a truck route.

Shea Road is a north-south collector roadway that spans from Abbott Street to the Richmond community. There are many offset intersections along this roadway. It has a posted speed limit of 50km/h north of Cardelrec Recreation Complex, 60 km/h between the Recreation Complex and Fernbank Road, and 80km/h south of Fernbank Road. It is not a truck route.

Stittsville Main Street / Huntley Road is a 2-lane north-south arterial roadway. Stittsville Main Street becomes Huntley Road south of Flewellyn Road. It is posted at 50km/h north of West Ridge Drive, 60km/h between West Ridge Drive and Flewellyn Road, 70 km/h between Flewellyn Road and approximately 350m north of Fallowfield Road, and 80km/h south of this point. Stittsville Main Street is a full load truck route, and Huntley Road is a restricted load south of Fallowfield Road.

West Ridge Drive is a two-lane neighbourhood collector roadway from Hazeldean Road to Stittsville Main Street. It has a speed limit of 40km/h. It is not a truck route.

3.2 Intersections

Intersection controls and lane configurations for the study intersections are described below and shown in **Figure 4**.



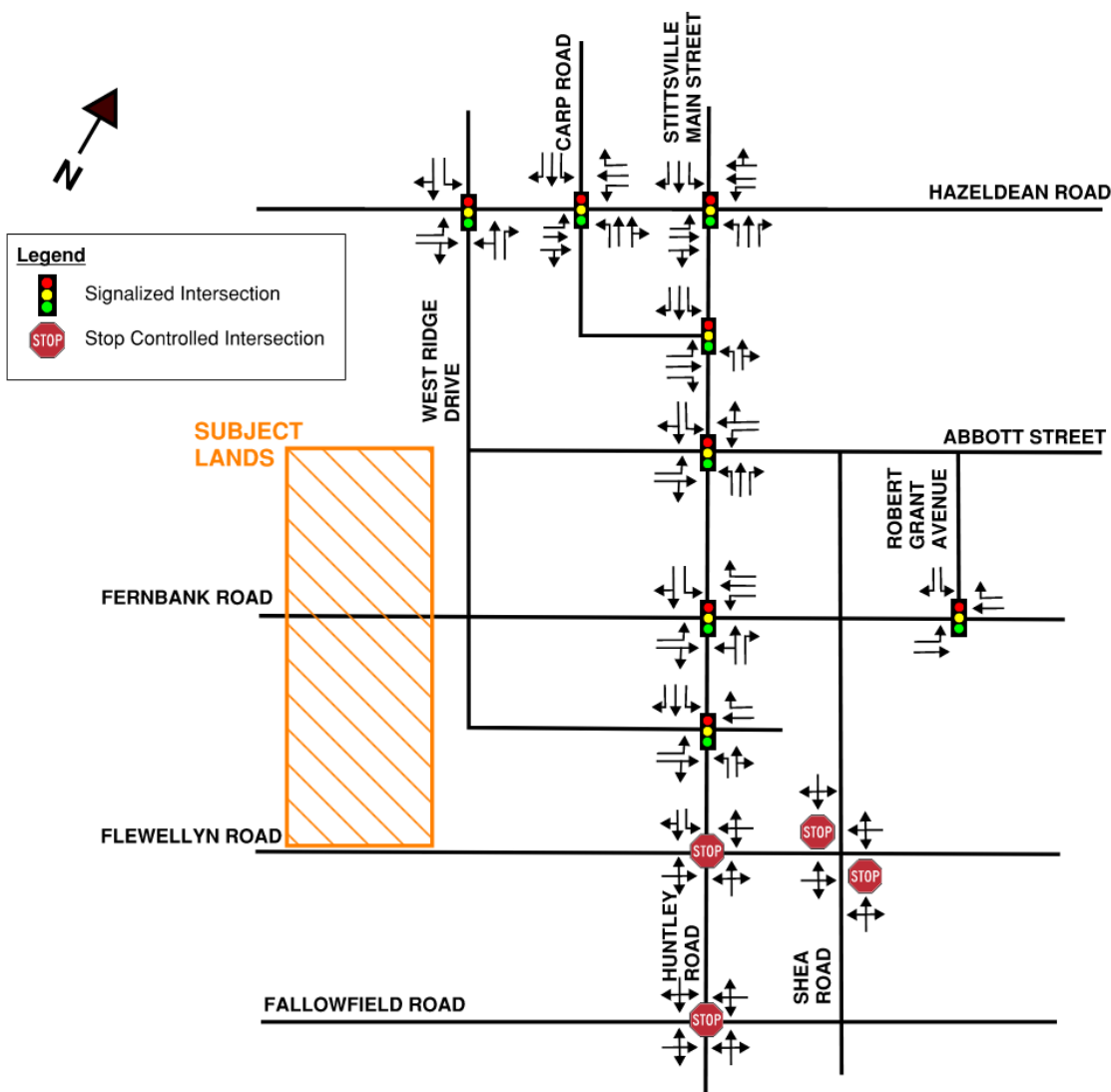


Figure 4 – Study Area Intersection Configurations

West Ridge Drive & Hazeldean Road is a signalized four-legged intersection. The west approach consists of a left turn lane and through-right lane. The south approach consists of a left-through lane and right turn lane. The east approach consists of a left turn lane and a through-right lane. The north approach consists of a left turn lane and through-right lane. There are no turn restrictions. Sidewalks are provided at all four corners to allow pedestrian crossings, but are only continuous down the west side of West Ridge Drive south of the intersection, the east side of West Ridge Drive north of the intersection, and the north side of Hazeldean Road east of the intersection. There are paved shoulders on Hazeldean Road east of the intersection.



Carp Road & Hazeldean Road is a signalized four-legged intersection. On the west approach, there is a left turn lane, a through lane, and through-right lane. On the south approach, there is a left turn lane, a through lane, and through-right lane. On the east approach, there is a left turn lane, through lane, and channelized right turn lane. On the north approach, there is a left turn lane, through lane, and a channelized right turn lane. There are no turn restrictions. Sidewalks are provided on all approaches except for the southwest quadrant. There are painted bike lanes on the south, east, and north approach. Paved shoulders are on the west approach.

Stittsville Main Street & Hazeldean Road is a signalized four-legged intersection. The west approach consists of a left turn lane, through lane, and through-right lane. The south approach consists of a left turn lane, through lane, and a channelized right turn lane. The east approach consists of a left turn lane, through lane and through-right lane. The north approach consists of a left turn lane, through lane, and right turn lane. There are no turn restrictions. There are sidewalks on all legs. There are painted bike lanes on all approaches except the north approach.

Stittsville Main Street & Carp Road is a signalized four-legged intersection. The west approach consists of a left turn lane, through lane, and channelized right turn lane. The south leg consists of a left turn lane, and a through-right lane. The east leg consists of a left turn lane and a through-right lane. The north leg consists of a left turn lane, through lane, and channelized right turn lane. There are no turn restrictions. Sidewalks are provided on all legs. There are no designated cycling facilities at this intersection.

Stittsville Main Street & Abbott Street is a signalized four-legged intersection. The west approach consists of a left turn lane and a through-right lane. The south approach consists of a left turn lane, through lane, and channelized right turn lane. The east leg consists of a left turn lane, through lane, and channelized right turn lane. The north approach consists of a left turn lane and a through-right lane. There are no turn restrictions. Sidewalks are provided on all legs. There are no designated cycling facilities at this intersection.

Stittsville Main Street & Fernbank Road is a signalized four-legged intersection. The west approach consists of a left turn lane, through lane, and a channelized right turn lane. The south approach consists of a left turn lane, and a through-right lane. The east approach consists of a left turn lane, through lane, and channelized right turn lane. The north approach consists of a left turn lane and a through-right lane. There are no turn restrictions. There are sidewalks on both sides of the north leg, south side of the east leg, both sides of the south leg, and none on the west leg. Paved shoulders are provided on the west leg and north side of the east leg.

Stittsville Main Street & West Ridge Drive is a signalized four-legged intersection. The west approach consists of a left turn lane, through-right lane. The south approach consists of a left turn lane, and a through-right lane. The east approach consists of a left turn lane and a through-right lane. The north approach consists of a left turn lane, through lane, and right turn lane. There are sidewalks on all legs except the south leg. Paved shoulders are provided on the south leg.

Stittsville Main Street & Flewellyn Road is an all-way stop-controlled four-legged intersection. The west approach consists of a left-through-right lane. The east approach consists of a left-through-right lane. The



north approach consists of a left-through lane and a channelized right turn lane. The south leg consists of a left-through-right lane. There are paved shoulders on the south, east, and north legs.

Huntley Road & Fallowfield Road is an all-way stop-controlled four-legged intersection. All approaches have a shared left-through-right lane. Paved shoulders are provided on Huntley Road.

Shea Road & Flewellyn Road is a two-way stop-controlled, offset, four-legged intersection. All approaches consist of a shared left-through-right lane. There are paved shoulders provided on Flewellyn Road.

Robert Grant Avenue & Fernbank Road is a signalized three-legged intersection. The west approach consists of a left turn lane and a through lane. The east approach consists of a through lane and right turn lane. The north leg consists of a left turn lane and right turn lane. There are no turn restrictions. There is an asphalt pathway on the north side of Fernbank Road, and sidewalk and cycle tracks on both sides of Robert Grant. There is a bidirectional crossride on the north leg.

3.3 Active Transportation Network

Walking

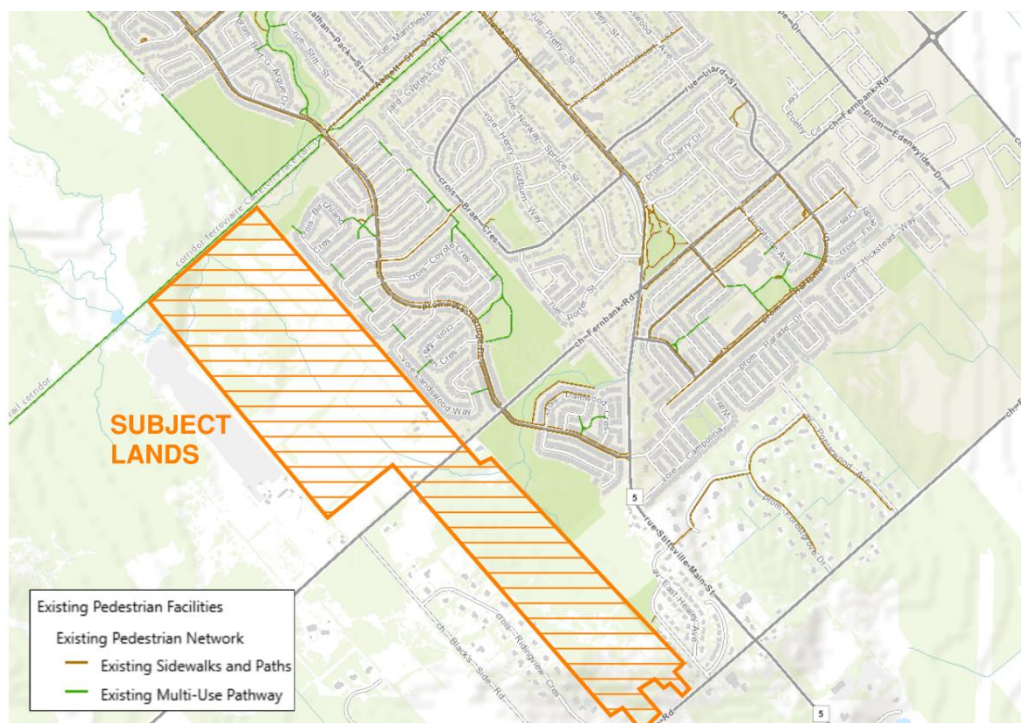


Figure 5 – Existing Active Transportation Network, Walking (GeoOttawa)

The existing walking network is shown in **Figure 5**.



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Within a 2km radius from the subject lands, there are sidewalks on both sides of West Ridge Drive, and multi-use pathway shortcuts through the existing neighbourhood north of Fernbank, immediately east of the subject lands. There is a sidewalk on one side of Abbott Street. There are sidewalks on both sides of Stittsville Main Street from Abbott Street to Brae Crescent, on one side from Brae Crescent to Upcountry Drive, and none south of Upcountry Drive. The Trans Canada Trail multi-use pathway (MUP) is a key active transportation facility in the area located immediately north of the subject lands and continues east parallel to Abbott Street. A trail exists running north-south from the Trans Canada Trail to Hazeldean Road. There are no pedestrian facilities on Fernbank Road west of Stittsville Main Street and none on Flewellyn Road.

Cycling

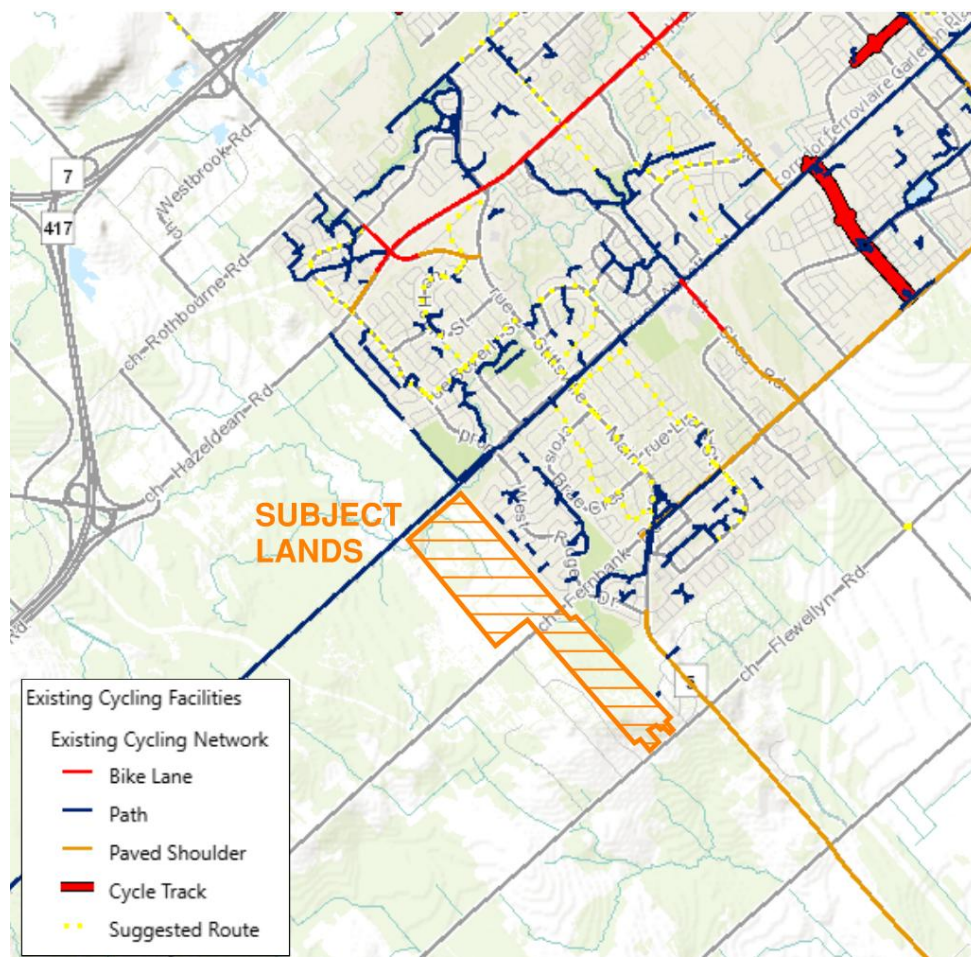


Figure 6 - Existing Active Transportation Network, Cycling (GeoOttawa)

The existing cycling network is shown in **Figure 6**.



Within a 5km radius from the subject lands, significant cycling facilities are provided through the east-west Trans Canada Trail MUP and cycle tracks on Robert Grant Avenue. There are several Suggested Routes on neighbourhood roads and Stittsville Main Street, various neighbourhood shortcut MUPs, paved shoulders on Huntley Road, Fernbank Road east of Stittsville Main Street, Iber Road, and painted bike lanes on Hazeldean Road. There is a lack of cycling facilities on Fernbank Road and Flewellyn Road adjacent to the subject lands, and a general lack of direct cycling facilities on arterial and collector roadways.

3.4 Transit Network

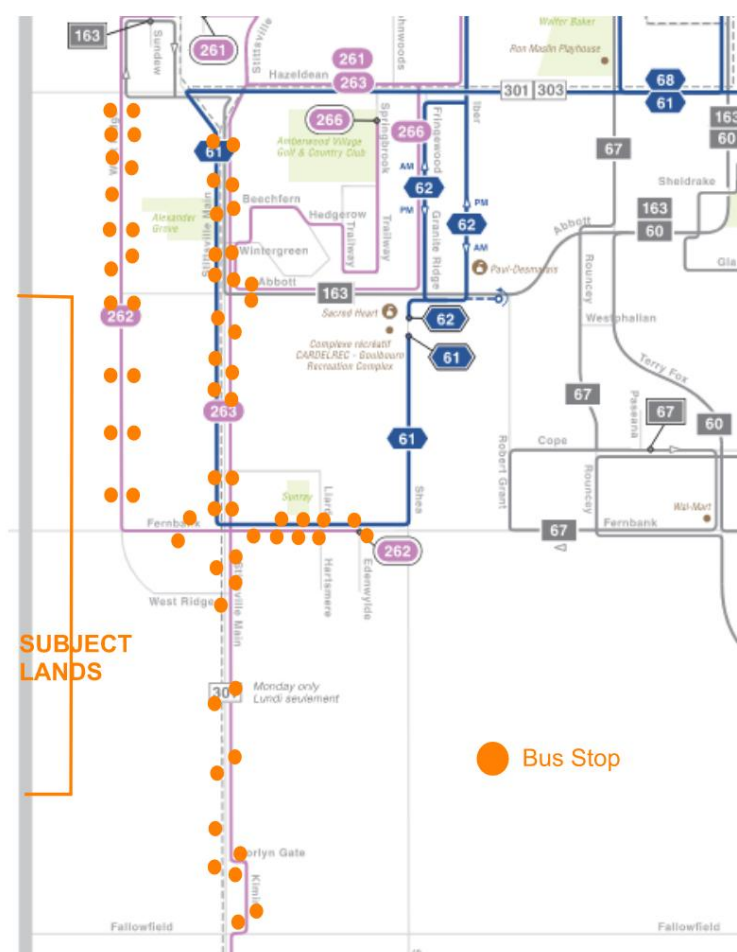


Figure 7 – Existing Transit Network (New Ways to Bus)

Figure 7 shows the transit network near the subject lands and bus stops nearby the subject lands.

No transit service directly passes by the subject lands. The nearest transit service includes Route 61, Route 163, Route 262, Route 263, and Route 266. 200-series Connexion routes provide convenient connections to the O-Train weekday peak periods only.



- **Frequent Route 61** runs between Stittsville and Tunney's Pasture seven days a week. The headway is generally 30-minutes but up to 15-minutes eastbound in the AM peak hour and westbound in the PM peak hour.
 - Trips departing from Terry Fox Station experiences up to 15-minute headways eastbound in the AM peak and westbound in the PM peak. Trips departing from Stittsville (Carldelrec) operate with a 30-minute headway.
- **Local Route 163** runs between Terry Fox and Kittiwake seven days a week with a 30-minute headway.
- **Connexion Route 262** runs between West Ridge and Tunney's Pasture on weekdays. There are four trips in the AM period to Tunney's Pasture and five trips in the PM period to Fernbank. The nearest bus stops from the subject lands are serviced by Route 262 at stops #2050 and #2051 at West Ridge & Fernbank which are approximately 400m from the lands, and at stops #2082 and #2083 at Fernbank & Etta which are approximately 600m from the lands.
- **Connexion Route 263** runs between Richmond and Tunney's Pasture on weekdays. There are three trips in the AM period to Tunney's Pasture and four trips in the PM period to Richmond.
- **Connexion Route 266** runs between Springbrook and Tunney's Pasture on weekdays. There are four trips in the AM period to Tunney's Pasture and four trips in the PM period to Springbrook.

3.5 Existing Volumes

Turning movement count data at the study area intersections received from the City of Ottawa were collected between 2019 and 2025. Count dates are shown in **Table 2**. Signal timing plans were also received from the City of Ottawa. Turning movement counts are in Error! Reference source not found. a nd signal timing plans are in **Appendix C**.

Table 2 – Traffic Count Dates

Intersection	Count Date
Hazeldean Rd & West Ridge Dr	January 11, 2022
Hazeldean Rd & Carp Rd	September 19, 2024
Hazeldean Rd & Stittsville Main St	October 22, 2024
Stittsville Main St & Carp Rd	December 20, 2023
Stittsville Main St & Abbott St	October 9, 2024
Stittsville Main St & Fernbank Rd	April 30, 2019
Stittsville Main St & West Ridge Dr	July 30, 2024
Stittsville Main St/Huntley Rd & Flewellyn Rd	April 30, 2019
Huntley Rd & Fallowfield Rd	April 25, 2019
Fernbank Rd & Robert Grant Ave	June 25, 2025
Flewellyn Rd & Shea Rd	February 26, 2025



Most of the traffic counts are dated post-COVID, which is assumed to account for hybrid work arrangements and result in a more distributed demand on the road network in the peak periods compared to pre-COVID.

Volume balancing was conducted where appropriate. The differences in pre- and post-COVID counts were considered in balancing volumes at intersections with older count data. However, note that several study intersections have a large distance between them with numerous signalized and unsignalized intersections and accesses that result in volume balancing discrepancy, such as Stittsville Main Street between Carp Road and Fernbank Road, and Fernbank Road between Stittsville Main Street and Robert Grant Avenue. Background growth rates applied for counts taken before 2025 are explained in **Section 6.1**.

Figure 8 below shows existing traffic volumes at the study intersections. **Figure 9** and **Figure 10** show pedestrian and cyclist volumes respectively. Lower active transportation volumes are seen at more rural intersections to the south, and lower cyclist volumes are seen at intersections with counts conducted in winter months. Notably, a high volume of cyclists (26) is seen at the Stittsville Main Street & Abbott Street intersection in the AM peak hour, who are likely commuting via the Trans Canada Trail.



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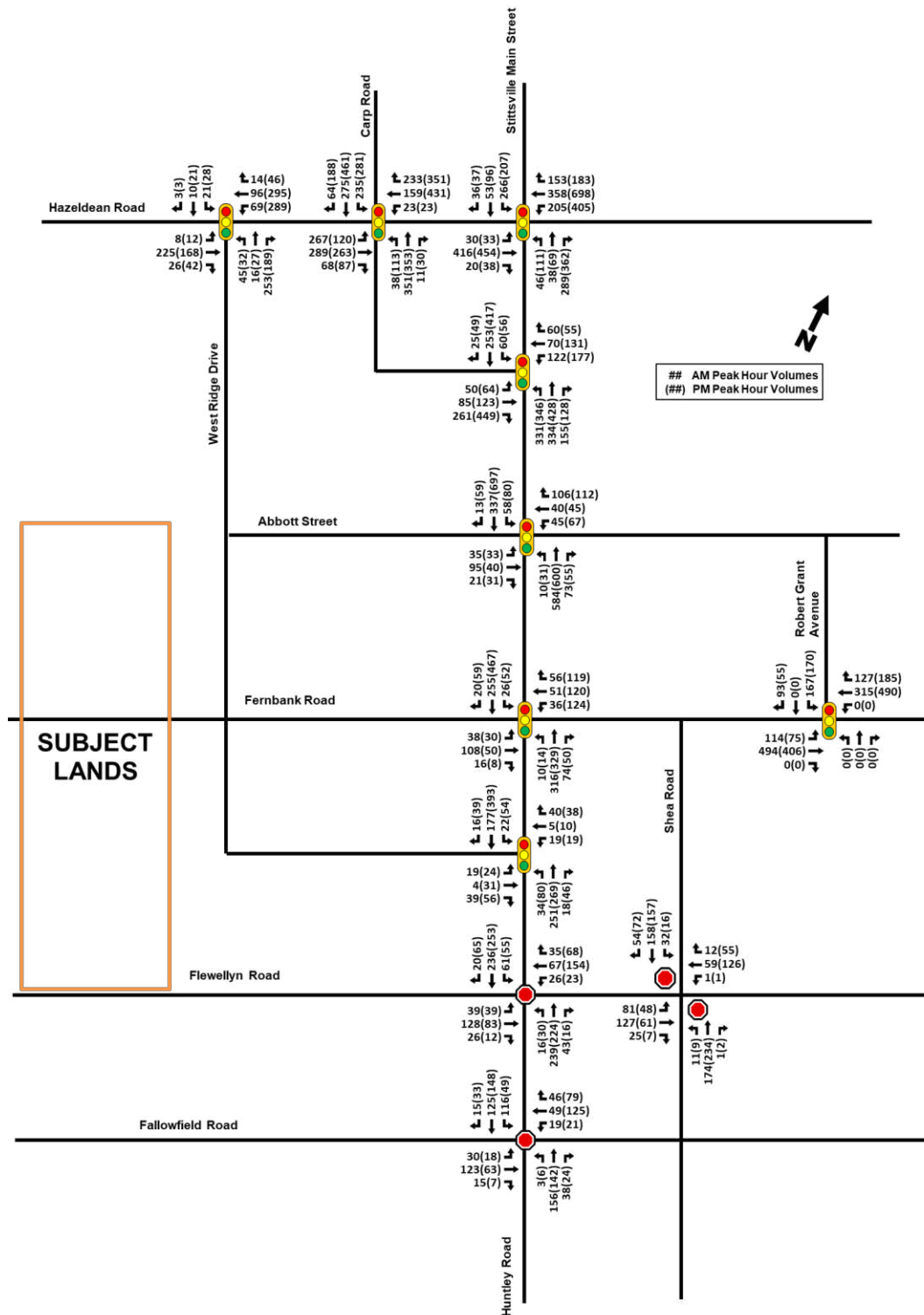


Figure 8 – Existing 2025 Traffic Volumes



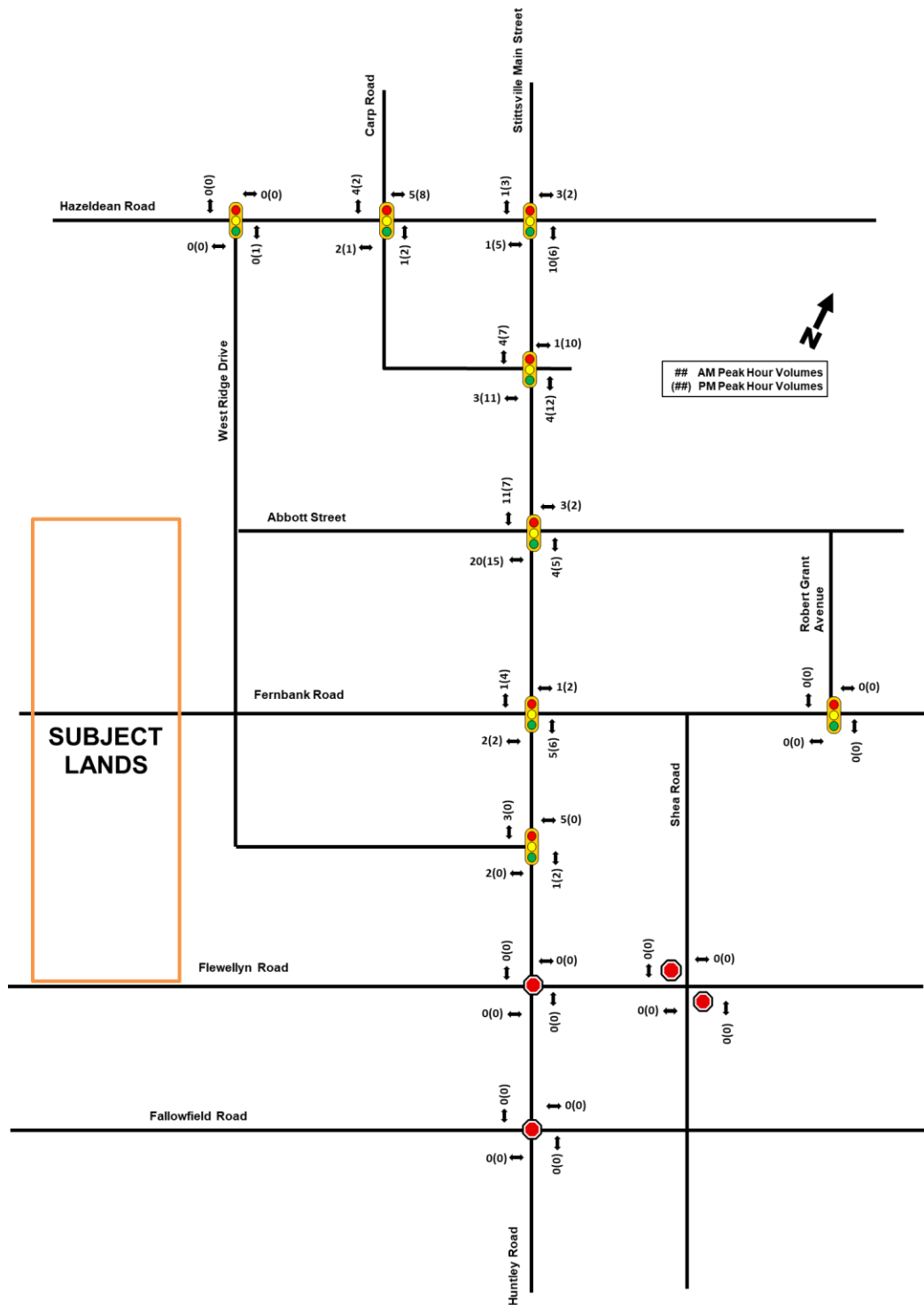


Figure 9 – Existing Pedestrian Volumes



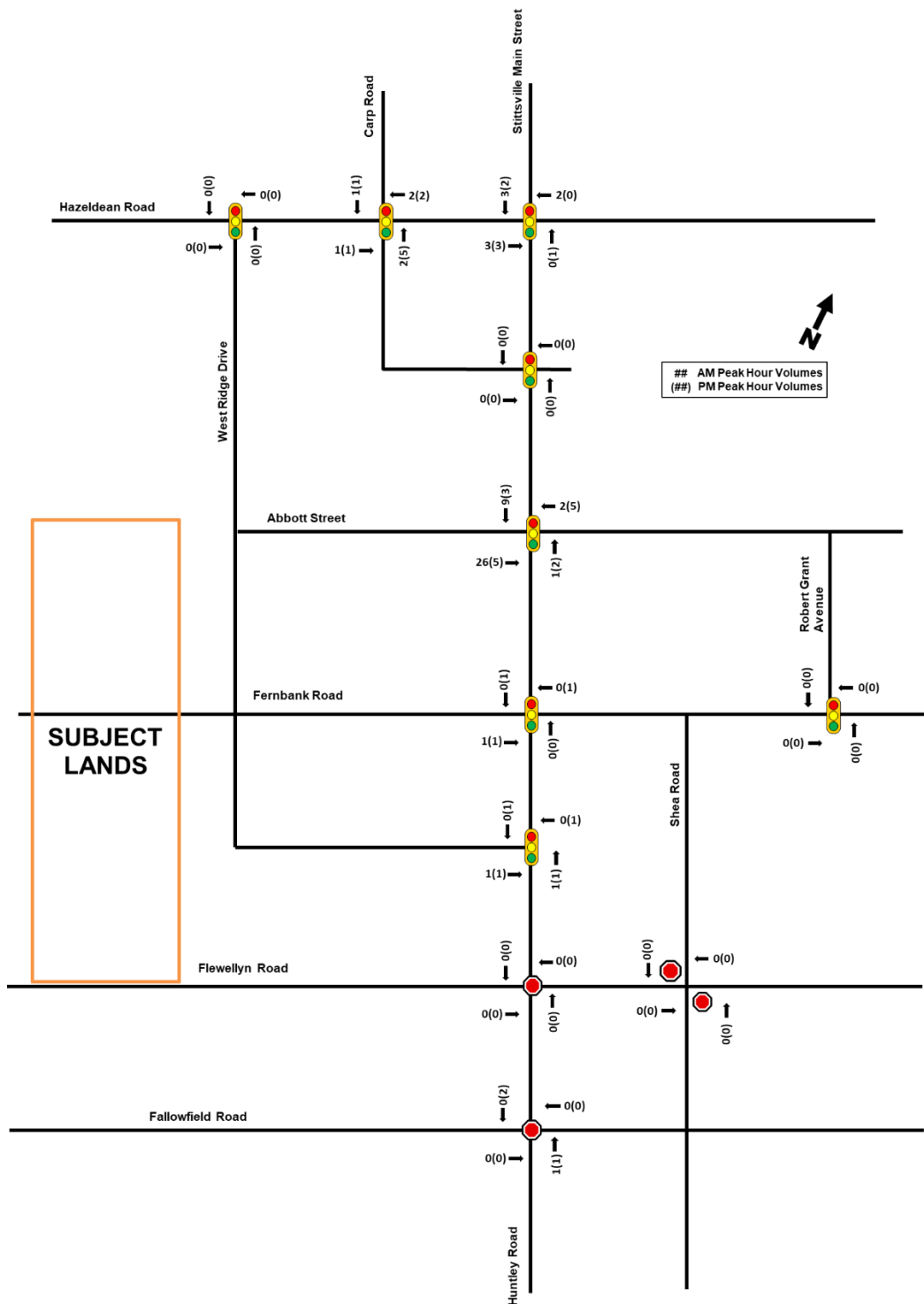


Figure 10 – Existing Cyclist Volumes



3.6 Existing - Intersection Operations

Peak hour intersection operation analysis was undertaken for existing conditions. Intersection capacity analysis software Synchro version 12 was used to assess signalized and unsignalized intersection performance.

The intersections were assessed in terms of volume-to-capacity ratio (v/c), Highway Capacity Manual (HCM) delay, and the corresponding Level of Service (LOS). It should be noted that the overall performance of a signalized intersection is calculated as a weighted v/c ratio and assigned a corresponding LOS, with critical movements assigned a LOS based on their respective v/c ratio. Unsignalized intersections are given an LOS based on delay. **Table 3** shows the vehicular level of service that corresponds to each v/c ratio and delay.

Table 3 – Level of Service for v/c Ratio and Delay

Level of Service	Volume to Capacity Ratio	HCM Stop Control Delay
A	0 to 0.60	≤ 10 s
B	0.61 to 0.70	> 10 – 15 s
C	0.71 to 0.80	> 15 – 25 s
D	0.81 to 0.90	> 25 – 35 s
E	0.91 to 1.00	> 35 – 50 s
F	> 1.00	> 50 s

Traffic operations in existing conditions are summarized in **Table 4** and **Table 5**. Detailed results are included in **Appendix C**.

Table 4 – Existing, Signalized Intersection Operations Analysis, AM Peak (PM Peak)

Intersections	Movements	Delay (s)	v/c Ratio	v/c LOS	95th Queue (m)
West Ridge Drive & Hazeldean Road	EBL	5 (5)	0.01 (0.02)	A (A)	2 (2)
	EBTR	6 (5)	0.24 (0.20)	A (A)	23 (17)
	WBL	6 (8)	0.11 (0.44)	A (A)	8 (33)
	WBTR	5 (6)	0.11 (0.33)	A (A)	11 (29)
	NBLT	28 (28)	0.31 (0.29)	A (A)	17 (17)
	NBR	9 (10)	0.58 (0.52)	A (A)	17 (15)
	SBL	25 (26)	0.11 (0.16)	A (A)	8 (10)
	SBTR	21 (23)	0.05 (0.10)	A (A)	5 (8)
	Overall	9 (9)	0.36 (0.39)	A (A)	-
Carp Road & Hazeldean Road	EBL	96 (70)	1.01 (0.84)	F (D)	#106 (#50)
	EBTR	37 (25)	0.46 (0.30)	A (A)	50 (44)
	WBL	48 (36)	0.20 (0.11)	A (A)	14 (12)
	WBT	65 (75)	0.71 (0.95)	C (E)	62 (#182)



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Intersections	Movements	Delay (s)	v/c Ratio	v/c LOS	95th Queue (m)
	WBR	12 (10)	0.60 (0.58)	A (A)	22 (36)
	NBL	65 (88)	0.38 (0.77)	A (C)	21 (#61)
	NBTR	41 (45)	0.44 (0.51)	A (A)	63 (69)
	SBL	32 (72)	0.69 (0.86)	B (D)	49 (#109)
	SBT	21 (47)	0.34 (0.78)	A (C)	77 (162)
	SBR	1 (7)	0.10 (0.31)	A (A)	0 (19)
	Overall	41 (46)	0.69 (0.78)	B (C)	-
Stittsville Main Street & Hazeldean Road	EBL	12 (16)	0.07 (0.15)	A (A)	8 (9)
	EBTR	23 (38)	0.33 (0.57)	A (A)	58 (75)
	WBL	14 (22)	0.43 (0.72)	A (C)	40 (#114)
	WBTR	16 (21)	0.34 (0.56)	A (A)	56 (121)
	NBL	32 (37)	0.19 (0.40)	A (A)	16 (35)
	NBT	48 (54)	0.22 (0.38)	A (A)	18 (29)
	NBR	22 (15)	0.77 (0.76)	C (C)	35 (29)
	SBL	70 (50)	0.91 (0.71)	E (C)	#90 (63)
	SBT	45 (56)	0.21 (0.47)	A (A)	23 (39)
	SBR	1 (1)	0.10 (0.13)	A (A)	0 (0)
	Overall	27 (28)	0.51 (0.67)	A (B)	-
Stittsville Main Street & Carp Road	EBL	30 (34)	0.27 (0.33)	A (A)	16 (21)
	EBT	29 (34)	0.28 (0.39)	A (A)	23 (34)
	EBR	9 (25)	0.58 (0.86)	A (D)	18 (#58)
	WBL	42 (25)	0.61 (0.49)	B (A)	34 (36)
	WBTR	21 (19)	0.42 (0.33)	A (A)	25 (34)
	NBL	10 (85)	0.55 (1.04)	A (F)	34 (#140)
	NBTR	14 (39)	0.57 (0.86)	A (D)	61 (#193)
	SBL	7 (16)	0.14 (0.25)	A (A)	8 (13)
	SBT	18 (51)	0.35 (0.88)	A (D)	52 (#129)
	SBR	1 (1)	0.04 (0.10)	A (A)	0 (0)
	Overall	16 (40)	0.51 (0.92)	A (E)	-
Stittsville Main Street & Abbott Street	EBL	34 (43)	0.25 (0.32)	A (A)	13 (15)
	EBTR	35 (26)	0.50 (0.32)	A (A)	31 (19)
	WBL	34 (45)	0.29 (0.45)	A (A)	16 (24)
	WBTR	16 (20)	0.50 (0.56)	A (A)	21 (26)
	NBL	4 (5)	0.02 (0.09)	A (A)	2 (5)
	NBT	8 (7)	0.52 (0.51)	A (A)	68 (70)
	NBR	2 (2)	0.08 (0.05)	A (A)	4 (3)
	SBL	5 (3)	0.16 (0.18)	A (A)	6 (m4)



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Intersections	Movements	Delay (s)	v/c Ratio	v/c LOS	95th Queue (m)
	SBTR	4 (5)	0.31 (0.63)	A (B)	22 (m35)
	Overall	11 (9)	0.48 (0.58)	A (A)	-
Stittsville Main Street & Fernbank Road	EBL	26 (24)	0.19 (0.14)	A (A)	12 (10)
	EBTR	29 (21)	0.46 (0.19)	A (A)	29 (15)
	WBL	26 (34)	0.20 (0.56)	A (A)	12 (31)
	WBT	25 (27)	0.20 (0.38)	A (A)	15 (28)
	WBR	9 (7)	0.21 (0.33)	A (A)	9 (12)
	NBL	6 (9)	0.02 (0.05)	A (A)	2 (4)
	NBTR	8 (10)	0.38 (0.42)	A (A)	45 (55)
	SBL	7 (9)	0.05 (0.12)	A (A)	5 (10)
	SBTR	7 (13)	0.26 (0.56)	A (A)	30 (85)
	Overall	12 (15)	0.37 (0.52)	A (A)	-
Stittsville Main Street & West Ridge Drive	EBL	33 (34)	0.12 (0.15)	A (A)	9 (11)
	EBTR	14 (19)	0.19 (0.35)	A (A)	10 (18)
	WBL	33 (33)	0.12 (0.12)	A (A)	9 (9)
	WBTR	15 (16)	0.20 (0.21)	A (A)	10 (11)
	NBL	5 (7)	0.05 (0.15)	A (A)	5 (10)
	NBTR	6 (7)	0.24 (0.30)	A (A)	27 (32)
	SBL	5 (6)	0.03 (0.09)	A (A)	3 (7)
	SBT	5 (8)	0.16 (0.37)	A (A)	18 (44)
	SBR	0 (1)	0.02 (0.04)	A (A)	0 (2)
	Overall	8 (9)	0.22 (0.33)	A (A)	-
Fernbank Road & Robert Grant Avenue	EBL	36 (34)	0.48 (0.37)	A (A)	33 (24)
	EBT	10 (9)	0.50 (0.40)	A (A)	66 (50)
	WBT	26 (36)	0.57 (0.83)	A (D)	77 (#141)
	WBR	6 (5)	0.24 (0.30)	A (A)	12 (14)
	SBL	35 (34)	0.58 (0.58)	A (A)	44 (43)
	SBR	9 (9)	0.28 (0.18)	A (A)	12 (9)
	Overall	18 (22)	0.56 (0.73)	A (C)	-

– indicates that the 95th percentile queue exceeds capacity and cannot be processed by a single cycle. The value shown is the total queue length over two successive cycles, which accounts for the spillover between cycles.

m – indicates that the volume for the 95th percentile queue is metered by an upstream signal



Table 5 – Existing, Unsignalized Intersection Operations Analysis, AM Peak (PM Peak)

Intersections	Movements	Delay (s)	Delay LOS	v/c Ratio	95th Queue (m)
Stittsville Main Street & Flewellyn Road	EBLTR	13 (13)	B (B)	0.37 (0.28)	-
	WBLTR	12 (16)	B (C)	0.25 (0.48)	-
	NBLTR	16 (16)	C (C)	0.54 (0.52)	-
	SBLTR	17 (21)	C (C)	0.57 (0.69)	-
	Overall	15 (17)	B (C)	-	-
Huntley Road & Fallowfield Road	EBLTR	11 (10)	B (A)	0.29 (0.15)	-
	WBLTR	10 (11)	A (B)	0.19 (0.35)	-
	NBLTR	11 (11)	B (B)	0.32 (0.28)	-
	SBLTR	13 (12)	B (B)	0.42 (0.37)	-
	Overall	11 (11)	B (B)	-	-
Shea Road & Flewellyn Road	EBLTR	3 (4)	A (A)	0.06 (0.04)	2 (1)
	WBLTR	1 (0)	A (A)	0.00 (0.00)	0 (0)
	NBLTR	19 (20)	C (C)	0.44 (0.52)	17 (23)
	SBLTR	21 (17)	C (C)	0.54 (0.47)	24 (19)
	Overall	12 (12)	B (B)	-	-

In existing conditions, all movements operate at an acceptable LOS except for the:

- Eastbound left at Hazeldean & Carp in the AM peak hour, with a v/c ratio of 1.01 and a 95th percentile queue of 106m which exceeds the storage length of approximately 90m, and
- Northbound left at Stittsville Main & Carp in the PM peak hour, with a v/c ratio of 1.04 and 95th percentile queue of 140m which exceeds the storage length of approximately 80m.

Both movements are likely over capacity due to high volumes of left turning vehicles in the provided green time (250+ and 300+ vehicles in the peak hour respectively). Optimization of phasing at the intersection appears to alleviate the problem.

3.7 Existing - Transit and Roadway Capacity

Custom screenlines were made for the subject lands and are shown in **Figure 11**. Screenlines are imaginary lines with stations at major travel routes to assess network capacity on a macro-scale by looking at how many vehicles 'cross' the screenline.

Screenline 1 is located just south of, and is parallel to, Hazeldean Road, to capture any trips destined north towards key employment areas in Kanata and to Highway 417 via West Ridge Drive, Carp Road, Stittsville Main Street, Iber Road, Robert Grant Avenue, Terry Fox Drive, and Eagleson Road. Screenline 2 is located west of, and is parallel to, Eagleson Road, which captures trips destined east via Hazeldean Road, Fernbank Road, Flewellyn Road, and Fallowfield Road.



2022 TRANS regional model data provided by the City on transit capacity and transit ridership in the AM peak period, and auto volumes and lane capacity in the AM peak hour were reviewed, and summarized below in **Table 6** and **Table 7**. The data is included in **Appendix F**.



Figure 11 – Screenlines for the Subject Lands

Table 6 below summarizes existing 2022 transit capacity through Screenline 1 in the AM peak period inbound direction (towards the Central Business District (CBD)). Only Screenline 1 was assessed, given that routes nearby the subject lands are generally destined north-south and moving through Screenline 1, and not Screenline 2.

Table 6 – Existing 2022, Transit Capacity, AM Peak Period

Screenline Station	Roadway	Capacity	Ridership	v/c Ratio
1	West Ridge Drive	140	209	1.49
2	Stittsville Main Street	308	247	0.80
3	Iber Road/Fringewood Dr	281	166	0.59
4	Robert Grant Avenue	-	-	-
5	Terry Fox Drive	91	43	0.47
6	Eagleson Road	469	750	1.60
Screenline 1 Total		1289	1415	1.10

Based on the TRANS model data, there is currently insufficient transit capacity for the ridership across Screenline 1, and specifically on West Ridge Drive and Eagleson Road.

Table 7 summarizes existing 2022 roadway capacity through Screenlines 1 and 2 in the AM peak hour inbound direction (towards the CBD).

Table 7 – Existing 2022, Roadway Capacity, AM Peak Hour

Screenline Station	Roadway	Capacity (number of lanes per direction/vphpl)	Auto Volumes	v/c Ratio
1	West Ridge Drive	1/800	213	0.27
2	Stittsville Main Street	1/1000	720	0.72
3	Iber Road	1/800	419	0.52
4	Robert Grant Avenue	-	-	-
5	Terry Fox Drive	1/1000	1177	1.18
6	Eagleson Road	2/1000	1932	0.97
Screenline 1 Total		4600 vph	4461	0.97
7	Hazeldean Road	2/1000	1145	0.57
8	Fernbank Road	1/1000	190	0.19
9	Flewellyn Road	1/800	191	0.24
10	Fallowfield Road	1/1200	653	0.54
Screenline 2 Total		5000 vph	2179	0.44

Terry Fox Drive at Station 5 is over capacity, but across both screenlines, there is currently residual auto capacity on the road network in the AM peak hour inbound direction.



4 Planned Conditions

4.1 Changes to the Transportation Network

Planned projects from the 2025 Transportation Master Plan (TMP) Part 2 are shown in **Figure 12** to **Figure 14**, and summarized in **Table 8**.

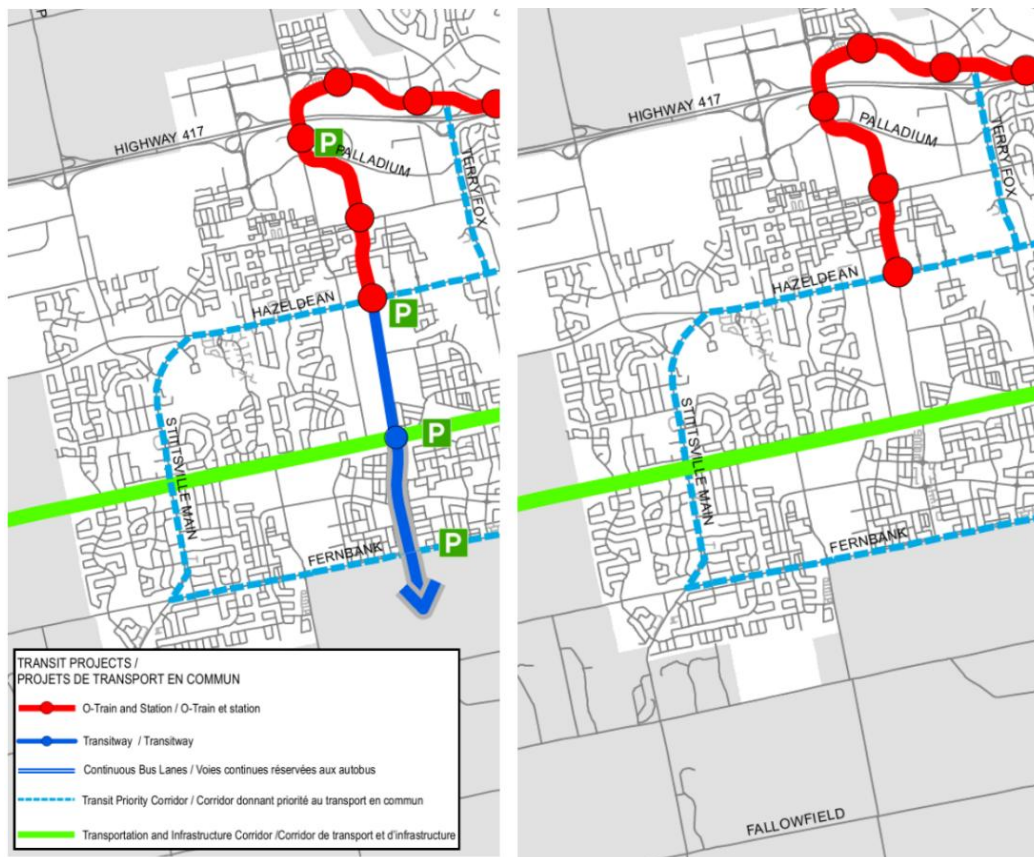


Figure 12 - 2046 Transit Needs Based (Left) and Priority (Right) Network

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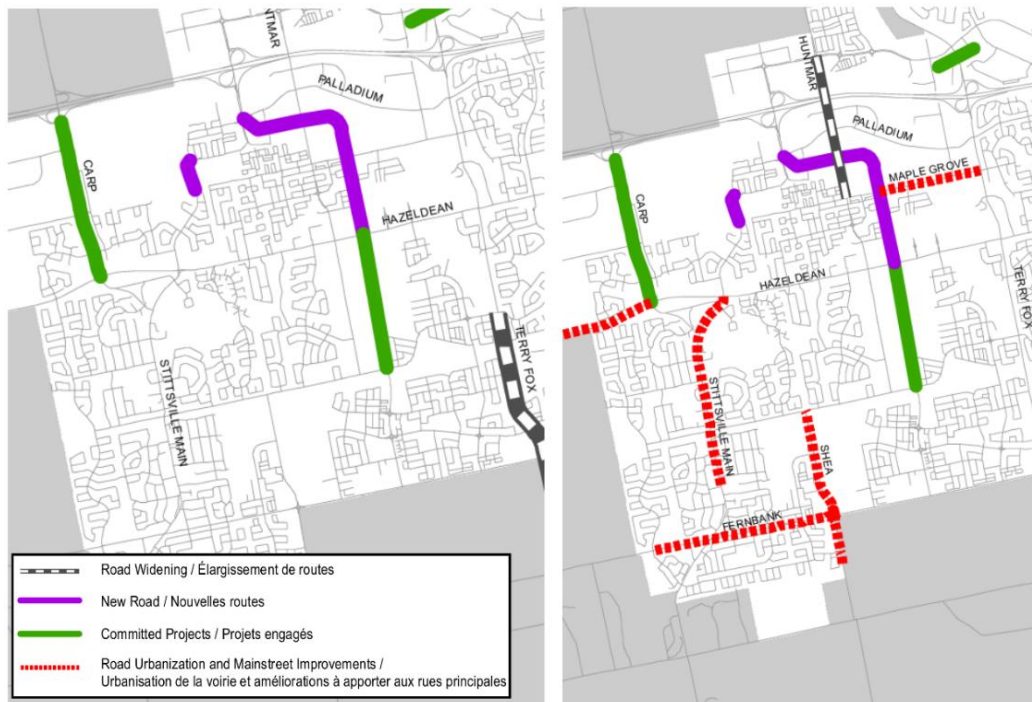


Figure 13 - 2046 Roads Needs Based (Left) and Priority (Right) Network



Figure 14 – 2046 Pedestrian (Left) and Cycling (Right) Projects



Table 8 – 2025 TMP Part 2 Projects

2025 TMP Projects	Prioritization	Description
Transit Projects		
O-Train Line 3 Extension	Priority	Dedicated, grade-separated LRT between Moodie Station and Hazeldean Station
Robert Grant Transitway	Needs Based	Median bus rapid transit between Hazeldean Station and Abbott Street East
Hazeldean Rd, Stittsville Main St, and Fernbank Rd	Priority	Transit Priority Corridors
Road Projects		
Carp Road Widening	Committed	Widening from two to four lanes between Highway 417 and Hazeldean Road
Robert Grant Avenue	Committed	New two-lane north-south arterial between Fernbank Rd and Hazeldean Rd
Robert Grant Avenue Extension	Priority	New two-lane road between Palladium Drive and Hazeldean Road
Stittsville Main Street Extension	Priority	New north-south collector road between Maple Grove Road and Derreen Avenue, connecting to the new east-west road delivered through development
Hazeldean Road Urbanization	Priority - Road Urbanization	West of Carp Road to connect to the Stittsville North W2 future community. Implement new pedestrian and cycling facilities on the south side and upgrade the existing active transportation facilities on the north side.
Fernbank Road Urbanization	Priority - Road Urbanization	West Ridge Drive to Shea. Implement new active transportation facilities on both sides and improve connection to the existing pathway on the south side of Fernbank Road (Stittsville Main Street to Hartsmere Drive).
Shea Road Urbanization	Priority - Road Urbanization	Abbott Street to the northern edge of the Stittsville South W4 future community. Implement new sidewalks and cycle tracks on both sides to enhance safety and improve connectivity to future developments as part of the Fernbank Community.
Stittsville Main Street Improvements	Priority - Main Street Improvements	Hazeldean Road to Bobcat Way. Implement the recommendations from the Stittsville Main Street Public Realm Plan. Deliver new sidewalks and cycle tracks along the corridor where feasible.
Active Transportation Projects		
West Ridge Drive Sidewalk	First Phase	Sidewalk along West Ridge Dr from Sable Run Dr to Alfred McCoy Park
Hobin Street Sidewalk	First Phase	Sidewalk along Hobin St from Carp Rd to Crossing Bridge Park
Johnwoods Street Pathway	First Phase	Multi-use Pathway along Johnwoods St between Alon St and Rosehill Ave.
Stittsville Trans Canada Trail Crossing	Later Phase	Cycling connection across Stittsville Main St for the Trans Canada Trail and other improved connections to the Trans Canada Trail.
West Ridge Drive	First Phase	Bike lanes where feasible on West Ridge Dr from Beverly St to Stittsville Main St.
Echowoods Park	First Phase	Multi-use pathway connection from Echowoods Park to Feedmill Creek Recreational Trail.



The subject lands would benefit from nearby transit, roadway, and active transportation projects. Future bus service near the lands will likely feed into the future O-Train Line 3 Extension that will support access to/from employment and commercial destinations along Highway 417 in Kanata. Three Transit Priority Corridors nearby on Hazeldean Road, Stittsville Main Street, and Fernbank Road will enhance service on frequent bus routes. There are four road urbanization/main street improvements that will enhance connectivity and safety for active transportation users near the lands on Hazeldean Road, Stittsville Main Street, Fernbank Road, and Shea Road. The Carp Road widening and Robert Grant extension will add arterial capacity to the area. An active transportation improvement in close proximity to the lands is the addition of bike lanes on West Ridge Drive.

4.2 Other Study Area Developments

Other development applications within the 5km radius study area from the City's Development Applications search tool were reviewed. These are shown in **Figure 15** and summarized below in **Table 9**.



Figure 15 – Study Area Development Applications

Table 9 – Study Area Development Applications

Figure Label	Address	Description	Build Out Year
1	6310 Hazeldean	Residential development with 431 dwelling units within 2 buildings	2027
2	1174 Carp	14-storey retirement home with 413 units and new public park.	2026
3	1981 Maple Grove	196-unit subdivision comprised of 57 single-detached dwellings, 101 townhomes and 38 back-to-back townhomes.	2023
4	1919 Maple Grove	Re-zone from DR (Development Reserve) to R3, R4 and O1 zone, to permit a low-rise subdivision and a public park.	2021
5	20 Cedarow	Mixed-use development comprised of a seniors apartment building and retail and offices uses	2024
6	37 Wildpine	Residential subdivision, 2 lots, one with 94-unit apartment and other a semi-detached dwelling	n/a
7	6279 Fernbank	To rezone the property to R3 Zone with exceptions to develop a subdivision containing 59 singles and 81 townhouses.	Built
8	21 Huntmar	Two, 6-storey apartment buildings with 344 residential units	2024
9	130 Huntmar	Mixed-use subdivision comprised of 631 residential units and blocks reserved for commercial uses, a school and a park	2024
9	5618 Hazeldean	Within 5101 Abbott application. Six stacked townhouse blocks (total of 124 units)	2027
10	5101 Abbott	Residential subdivision, consisting of low-rise residential uses, open space, and mixed-use zones. The proposed zoning amendment will permit the construction of 349 detached dwelling units, 569 townhouses, and 461 condo units	n/a
11	5000 Robert Grant	High-rise tower at 18 storeys, two mid-rise buildings of nine and six storeys, and an amenity building. Upon completion, the project will include 504 dwelling units	2025
12	5500 Abbott 1555 Shea	CRT Phase 4 - residential subdivision including 286 detached dwelling units and 324 townhouse dwellings, two parks and a block for a future school.	2025
13	1650 Shea	118 back to back townhouse units, configured in 6, 8, 10 and 12 unit blocks.	2024
14	1820 Shea 1770 Shea 5971 Flewellyn	Expand the City's Urban Boundary by including 5971 Flewellyn Road, 1770 Shea Road, and 1820 Shea Road. The expansion would allow for the future development of a residential subdivision with approximately 360 homes.	2030
15	5993 Flewellyn 6070 Fernbank 6115 Flewellyn 6141 Flewellyn 6159 Flewellyn	Residential subdivision comprised of approximately 1,700 dwelling units, including detached, townhouse and stacked dwellings, a park, a natural heritage/municipal drain block, and open space blocks.	2030



5 Forecasting

5.1 Development-Generated Travel Demand

5.1.1 Trip Generation Rate

Trip generation was estimated for each land use type based on the recommended residential person-trip generation rates from the 2020 TRANS Trip Generation Manual Section 3.2 and the directional splits from ITE Trip Generation Manual. Rates are summarized in **Table 10**.

Table 10 – Residential Person-Trip Generation Rates

Land Use	ITE Code	AM Peak Period	PM Peak Period
Single-Family Detached Housing	210	2.05 25% entering, 75% exiting	2.48 63% entering, 37% exiting
Multifamily Housing (Low-Rise)	220	1.35 24% entering, 76% exiting	1.58 63% entering, 37% exiting

5.1.2 Site-Generated Trips

Total person trips calculated for the subject lands in the peak period are shown in **Table 11**.

Table 11 – Residential Person Trips by Land Use, Peak Period

Land Use	Dwelling Units	Peak Period Person Trips	
		AM	PM
Single-Family Detached	1195	2450	2964
Multifamily Housing (Low-Rise)	1195	1613	1888

Table 12 summarizes total person trips with directional splits.

Table 12 – Residential Person Trips by Land Use Type and Directional Splits, Peak Period

Land Use	Dwelling Units	AM Peak Period			PM Peak Period		
		In	Out	Total	In	Out	Total
Single-Family Detached Housing	1195	612	1837	2450	1867	1097	2964
Multifamily Housing (Low-Rise)	1195	387	1226	1613	1190	699	1888
Total	2390	1000	3063	4063	3057	1795	4852



A total of 4,063 and 4,852 person trips are projected in the AM peak period and PM peak period respectively.

5.1.3 Mode Share

The total projected person trips are subdivided by mode share values to determine the number of person trips arriving and departing by travel mode. The subject lands fall within the Kanata-Stittsville District as identified in the 2020 TRANS Trip Generation Manual, where the associated residential mode share values are shown in **Table 13** for single-detached housing and low-rise multifamily housing.

Table 13 – Kanata-Stittsville District Residential Mode Share

Mode	Single-Detached Housing		Low-Rise Multifamily Housing	
	AM	PM	AM	PM
Auto Driver	52%	56%	52%	58%
Auto Passenger	15%	19%	14%	17%
Transit	20%	14%	22%	17%
Cycling	1%	1%	0%	0%
Walking	12%	9%	11%	8%

5.1.4 Future Mode Share

Based on the study's horizon year of 2046, a strong potential cycling connection with the Trans Canada Trail, planned transit projects and road urbanization improvements, and general Official Plan policy directions, an increase in transit, cycling, and walking mode share is anticipated. Further stages in the planning and development process will also ensure that the subject lands are designed to support local walking and cycling trips within the neighbourhood and the Stittsville community. Official Plan Big Policy Move 2 states that by 2046 the majority of trips in the city will be made by sustainable transportation. Residential mode share from the 2020 TRANS Trip Generation Manual for similar suburban districts were also considered. With this in mind, the future mode share assumptions were set for the subject lands with auto driver decreasing to 49% and sustainable modes increasing accordingly. The resulting mode share and the relative increase/decrease from the existing mode share is shown in **Table 14**.

Table 14 – Future Mode Share Target

Mode	Single-Detached Housing		Low-Rise Multifamily Housing	
	AM	PM	AM	PM
Auto Driver	49% (-3%)	49% (-7%)	49% (-3%)	49% (-9%)
Auto Passenger	15% (0%)	19% (0%)	14% (0%)	17% (0%)
Transit	21% (+1%)	17% (+3%)	23% (+1%)	20% (+3%)
Cycling	3% (+2%)	3% (+2%)	3% (+3%)	3% (+3%)
Walking	12% (0%)	12% (3%)	11% (0%)	11% (+3%)

These future mode share targets were applied to the person trips generated in the AM and PM peak periods, followed by the conversion of the peak period values to peak hour based on the 2020 TRANS Trip Generation Manual Section 3.3. The resulting values are shown below in **Table 15**.



Table 15 – Projected New Single-Detached and Low-Rise Multifamily Housing Site Trip Generation by Mode, Peak Hour

Single-Detached Housing	AM Peak Hour			PM Peak Hour		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Auto Driver	144	432	576	403	236	639
Auto Passenger	44	132	176	156	92	248
Transit	71	212	283	149	88	237
Cycling	11	32	43	27	16	43
Walking	43	128	171	117	68	185
TOTAL	312	936	1249	851	500	1351
Low-Rise Multifamily Housing	AM Peak Hour			PM Peak Hour		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Auto Driver	91	288	379	256	151	407
Auto Passenger	26	82	108	89	52	141
Transit	49	155	204	112	66	177
Cycling	7	21	28	17	10	27
Walking	25	78	103	68	40	108
TOTAL	198	625	823	542	319	861

In total, the subject lands are projected to generate:

- 955 two-way vehicular trips in the AM peak hour and 1,046 two-way vehicular trips in the PM peak hour,
- 487 two-way transit trips in the AM peak hour and 414 two-way transit trips in the PM peak hour,
- 71 two-way cycling trips in the AM peak hour and 70 two-way cycling trips in the PM peak hour, and
- 274 two-way walking trips in the AM peak hour and 293 two-way walking trips in the PM peak hour.

5.1.5 Trip Distribution and Assignment

The projected distribution of site-generated vehicular traffic was derived based on existing travel patterns as indicated by the 2011 TRANS Origin-Destination travel survey, existing AM and PM peak hour volumes, the site's connections to/from the surrounding road network, logical trip routings, and consideration of planned roadway projects such as Carp Road widening and Robert Grant Avenue extension.



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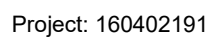
There is currently no concept plan for the transportation network within the subject lands. Therefore, no particular roadway network was assumed within the subject lands. Accesses to and from the lands were assumed to be on Fernbank Road and Flewellyn Road.

The following distribution and assignment of site-generated vehicular trips was assumed, as summarized in **Table 16**. The resulting site-generated traffic volumes are shown below in **Figure 16**.

Table 16 – Trip Distribution and Assignment

Trip Distribution		Trip Assignment	
50%	To/From North	10%	Via West Ridge / Carp / Highway 417
		20%	Via Fernbank/Terry Fox-Eagleson
		20%	Via Flewellyn / Terry Fox-Eagleson
		10%	Via Stittsville Main / Hazeldean
		10%	Via Flewellyn / Shea / Robert Grant
		20%	Via Stittsville Main / Carp / Highway 417
		10%	Via Fernbank / Robert Grant
5%	To/From South	50%	Via Stittsville Main Street
		25%	Via Fernbank
		25%	Via Flewellyn
40%	To/From East	15%	Via West Ridge / Carp / Highway 417
		25%	Via Stittsville Main / Carp / Highway 417
		15%	Via Fernbank
		35%	Via Fallowfield
		10%	Via Flewellyn
5%	To/From West	50%	Via Fernbank
		50%	Via Flewellyn





6 Background Network Travel Demands

6.1 Background Growth Rates

2022 and 2046 peak hour traffic volumes from the TRANS regional model data were compared, and are included in **Appendix F** and **Appendix G**. **Table 17** summarizes the background growth rates derived for the streets within the study area.

A general growth rate of 2% was used northbound and southbound on Stittsville Main Street. However, growth rates were adjusted at intersections along Hazeldean Road and Fernbank Road, accounting for context-specific rates, such as significant growth noted on Hazeldean between Carp and Stittsville Main, and near Robert Grant Avenue.

Background growth rates were applied for 10 years from 2025-2035, as directed by the City's Urban and Village Area Boundary Expansion – Infrastructure Capacity Assessment Terms of Reference (TOR), Section 6.9.c. Growth rate from 2035-2046 is assumed to be null.

Table 17 – Background Growth Rates

Roadway	Growth Rate
Abbott Street	EB/WB: 1%
Carp Road	NB: 1.5% SB: 2.5%
Hazeldean Road* (*Adjusted at intersections)	EB Average: 4% WB Average: 2%
Fallowfield Road	EB/WB: 1%
Fernbank Road* (*Adjusted at intersections)	West of Stittsville Main: 0% EB Average: 2.5% WB Average: 1%
Flewellyn Road	EB: 2.5% WB: 3%
Robert Grant Avenue	NB/SB: 6%
Shea Road	NB: 3% SB: 2.5%
Stittsville Main Street	NB/SB: 2%
West Ridge Drive	NB/SB: 0%

6.2 Other Study Area Developments

Section 4.2 listed other study area development applications from the City's Development Applications search tool. In reviewing the background growth rates and the development applications, it was noted that there is rapid growth and a significant number of developments, especially near Robert Grant Avenue and its extension, along Fernbank Road near Shea, and the south Stittsville area on Flewellyn Road near Shea.



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To avoid double counting between the background growth rate and development-generated trips, development-generated trips in the area were compared with the growth in TRANS model volumes. The TRANS model growth was comparable to development-generated trips, and thus TRANS model growth rates were used instead of adding development-generated trips. As noted previously, background growth rates were adjusted at certain intersections to ensure that growth was properly accounted for.

However, a surplus of trips was generated by the large developments at 5993, 6115, 6141, 5169 Flewellyn Road and the Eder Property at 1770, 1820 Shea Road and assigned to the intersections of Stittsville Main Street & Flewellyn Road and Flewellyn Road & Shea Road. Therefore, adjusted site-generated trips from these developments were added to the two study intersections.

Table 18 – Development Application Trips Considered in Study Network

Figure Label	Address	Description	Accounted for by Background Growth Rate?	Build Out Year
1	6310 Hazeldean	Residential development with 431 dwelling units within 2 buildings	Yes	2027
2	1174 Carp	14-storey retirement home with 413 units and new public park.	Yes	2026
3	1981 Maple Grove	196-unit subdivision comprised of 57 single-detached dwellings, 101 townhomes and 38 back-to-back townhomes.	Volumes did not impact study intersection	2023
4	1919 Maple Grove	Re-zone from DR (Development Reserve) to R3, R4 and O1 zone, to permit a low-rise subdivision and a public park.	Volumes did not impact study intersection	2021
5	20 Cedarow	Mixed-use development comprised of a seniors apartment building and retail and offices uses	Volumes did not impact study intersection	2024
6	37 Wildpine	Residential subdivision, 2 lots, one with 94-unit apartment and other a semi-detached dwelling	Volumes did not impact study intersection	n/a
7	6279 Fernbank	To rezone the property to R3 Zone with exceptions to develop a subdivision containing 59 singles and 81 townhouses.	Assumed to be in count	Built
8	21 Huntmar	Two, 6-storey apartment buildings with 344 residential units	Volumes did not impact study intersection	2024
9	130 Huntmar	Mixed-use subdivision comprised of 631 residential units and blocks reserved for commercial uses, a school and a park	Volumes did not impact study intersection	2024
9	5618 Hazeldean	Within 5101 Abbott application. Six stacked townhouse blocks (total of 124 units)	Yes	2027
10	5101 Abbott	Residential subdivision, consisting of low-rise residential uses, open space, and mixed-use zones. The proposed zoning amendment will permit the construction of 349 detached dwelling units, 569 townhouses, and 461 condo units	Yes	n/a
11	5000 Robert Grant	High-rise tower at 18 storeys, two mid-rise buildings of nine and six storeys, and an	Yes	2025



Figure Label	Address	Description	Accounted for by Background Growth Rate?	Build Out Year
		amenity building. Upon completion, the project will include 504 dwelling units		
12	5500 Abbott 1555 Shea	CRT Phase 4 - residential subdivision including 286 detached dwelling units and 324 townhouse dwellings, two parks and a block for a future school.	Yes	2025
13	1650 Shea	118 back to back townhouse units, configured in 6, 8, 10 and 12 unit blocks.	Yes	2024
14	1820 Shea 1770 Shea 5971 Flewellyn	Expand the City's Urban Boundary by including 5971 Flewellyn Road, 1770 Shea Road, and 1820 Shea Road. The expansion would allow for the future development of a residential subdivision with approximately 360 homes.	No, site-generated trips adjusted and added to network.	2030
15	5993 Flewellyn 6070 Fernbank 6115 Flewellyn 6141 Flewellyn 6159 Flewellyn	Residential subdivision comprised of approximately 1,700 dwelling units, including detached, townhouse and stacked dwellings, a park, a natural heritage/municipal drain block, and open space blocks.	No, site-generated trips adjusted and added to network.	2030

6.3 Future Background 2046 – Intersection Operations

Figure 17 below shows the resulting future background 2046 volumes, after applying the background growth rates and trips generated by other developments.



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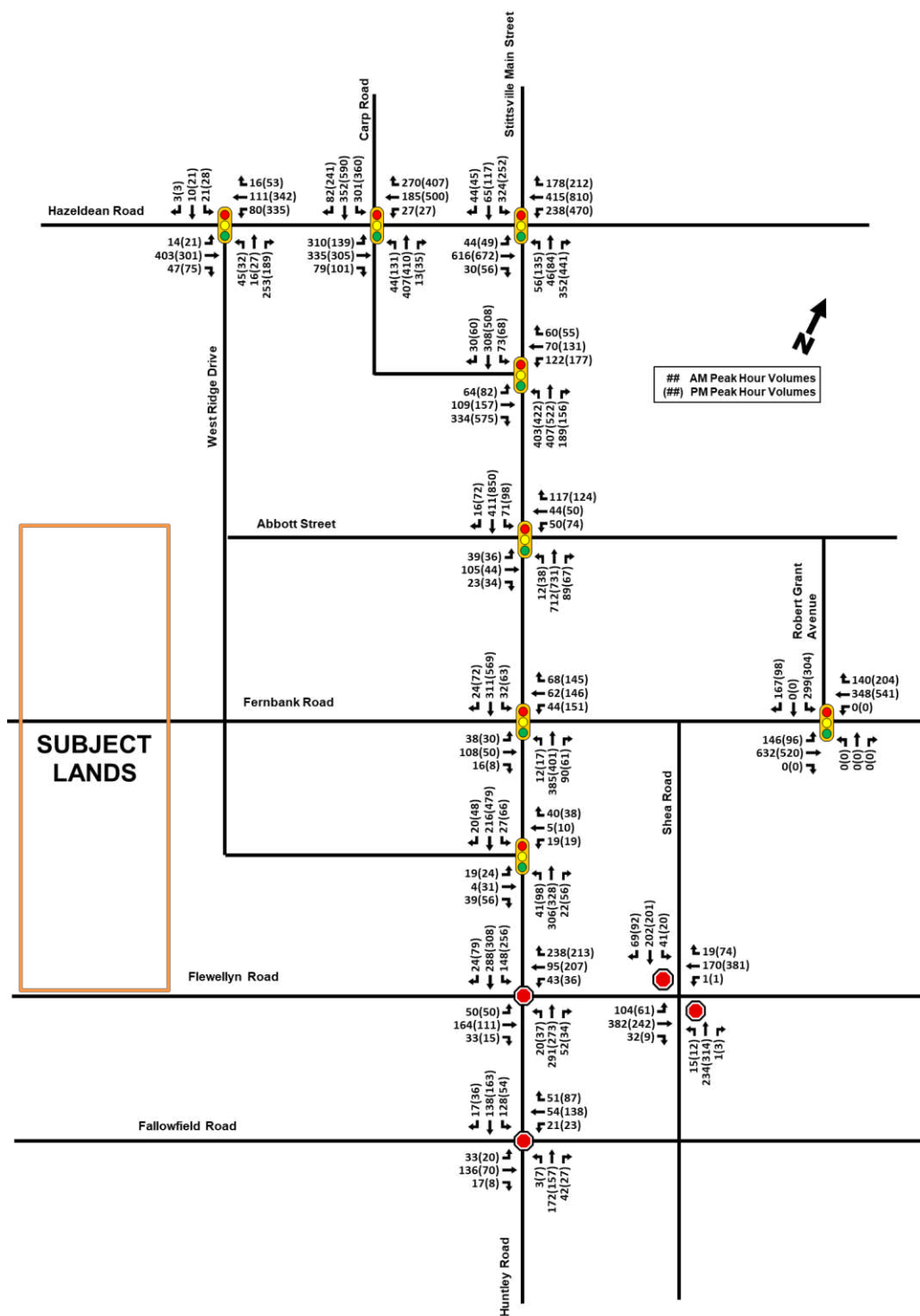


Figure 17 – Future Background 2046 Traffic Volumes



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Table 19 and Table 20 summarize intersection operations analysis in the future background 2046 conditions. Detailed results are included in **Appendix D**.

Table 19 – Future Background, Signalized Intersection Operations Analysis, AM Peak (PM Peak)

Intersections	Movements	Delay (s)	v/c Ratio	v/c LOS	95th Queue (m)
West Ridge Drive & Hazeldean Road	EBL	5 (5)	0.02 (0.03)	A (A)	2 (3)
	EBTR	7 (6)	0.39 (0.32)	A (A)	40 (28)
	WBL	6 (10)	0.14 (0.52)	A (A)	9 (38)
	WBTR	5 (6)	0.11 (0.34)	A (A)	11 (30)
	NBLT	28 (27)	0.28 (0.26)	A (A)	16 (16)
	NBR	9 (10)	0.55 (0.49)	A (A)	17 (15)
	SBL	25 (26)	0.10 (0.14)	A (A)	7 (9)
	SBTR	21 (23)	0.05 (0.10)	A (A)	5 (8)
	Overall	9 (9)	0.42 (0.43)	A (A)	-
Carp Road & Hazeldean Road	EBL	94 (86)	1.01 (0.92)	F (E)	#107 (#58)
	EBTR	36 (25)	0.47 (0.31)	A (A)	52 (46)
	WBL	47 (36)	0.21 (0.11)	A (A)	14 (13)
	WBT	64 (79)	0.71 (0.97)	C (E)	63 (#195)
	WBR	11 (11)	0.60 (0.60)	A (A)	23 (42)
	NBL	65 (91)	0.39 (0.80)	A (C)	22 (#65)
	NBTR	45 (49)	0.53 (0.59)	A (A)	66 (72)
	SBL	33 (77)	0.70 (0.91)	B (E)	#64 (#140)
	SBT	19 (34)	0.21 (0.48)	A (A)	41 (79)
	SBR	1 (5)	0.11 (0.35)	A (A)	1 (17)
	Overall	41 (46)	0.72 (0.83)	C (D)	-
Stittsville Main Street & Hazeldean Road	EBL	15 (18)	0.11 (0.19)	A (A)	12 (13)
	EBTR	29 (45)	0.49 (0.77)	A (C)	79 (104)
	WBL	24 (50)	0.58 (0.91)	A (E)	#68 (#188)
	WBTR	21 (27)	0.40 (0.64)	A (B)	67 (#156)
	NBL	27 (34)	0.17 (0.40)	A (A)	16 (34)
	NBT	41 (48)	0.17 (0.34)	A (A)	17 (29)
	NBR	36 (25)	0.85 (0.84)	D (D)	58 (51)
	SBL	56 (46)	0.86 (0.71)	D (C)	76 (62)
	SBT	38 (50)	0.18 (0.43)	A (A)	22 (38)
	SBR	1 (1)	0.10 (0.13)	A (A)	0 (0)
	Overall	30 (36)	0.59 (0.83)	A (D)	-
Stittsville Main Street & Carp Road	EBL	32 (31)	0.31 (0.32)	A (A)	18 (23)
	EBT	31 (32)	0.35 (0.38)	A (A)	26 (38)



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Intersections	Movements	Delay (s)	v/c Ratio	v/c LOS	95th Queue (m)
	EBR	10 (38)	0.63 (0.94)	B (E)	19 (#100)
	WBL	41 (21)	0.58 (0.41)	A (A)	31 (32)
	WBTR	20 (16)	0.39 (0.27)	A (A)	22 (30)
	NBL	11 (118)	0.60 (1.14)	A (F)	48 (#140)
	NBTR	15 (64)	0.62 (1.00)	B (E)	#87 (#212)
	SBL	8 (19)	0.16 (0.31)	A (A)	9 (14)
	SBT	19 (66)	0.39 (0.97)	A (E)	57 (#147)
	SBR	1 (1)	0.04 (0.11)	A (A)	0 (0)
	Overall	16 (56)	0.59 (1.01)	A (F)	-
Stittsville Main Street & Abbott Street	EBL	34 (42)	0.25 (0.31)	A (A)	13 (14)
	EBTR	35 (26)	0.50 (0.32)	A (A)	30 (19)
	WBL	35 (45)	0.29 (0.45)	A (A)	16 (24)
	WBTR	16 (20)	0.50 (0.56)	A (A)	21 (26)
	NBL	4 (5)	0.02 (0.12)	A (A)	2 (5)
	NBT	8 (8)	0.56 (0.56)	A (A)	79 (82)
	NBR	2 (2)	0.09 (0.06)	A (A)	4 (3)
	SBL	5 (4)	0.19 (0.22)	A (A)	m6 (m4)
	SBTR	4 (6)	0.34 (0.70)	A (B)	24 (m51)
	Overall	10 (10)	0.51 (0.65)	A (B)	-
Stittsville Main Street & Fernbank Road	EBL	26 (23)	0.18 (0.12)	A (A)	11 (9)
	EBTR	28 (21)	0.43 (0.16)	A (A)	26 (13)
	WBL	27 (34)	0.22 (0.57)	A (A)	13 (34)
	WBT	26 (27)	0.22 (0.40)	A (A)	16 (30)
	WBR	10 (7)	0.23 (0.34)	A (A)	9 (12)
	NBL	6 (9)	0.02 (0.06)	A (A)	2 (4)
	NBTR	8 (12)	0.41 (0.47)	A (A)	49 (66)
	SBL	6 (10)	0.06 (0.14)	A (A)	5 (11)
	SBTR	7 (15)	0.29 (0.63)	A (B)	32 (104)
	Overall	12 (16)	0.38 (0.58)	A (A)	-
Stittsville Main Street & West Ridge Drive	EBL	33 (37)	0.10 (0.21)	A (A)	8 (10)
	EBTR	15 (19)	0.17 (0.33)	A (A)	9 (17)
	WBL	33 (33)	0.11 (0.11)	A (A)	9 (9)
	WBTR	15 (16)	0.18 (0.20)	A (A)	9 (10)
	NBL	5 (7)	0.05 (0.17)	A (A)	5 (11)
	NBTR	6 (7)	0.26 (0.33)	A (A)	29 (36)
	SBL	5 (6)	0.04 (0.10)	A (A)	4 (8)
	SBT	5 (8)	0.18 (0.40)	A (A)	20 (49)



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Intersections	Movements	Delay (s)	v/c Ratio	v/c LOS	95th Queue (m)
	SBR	1 (2)	0.02 (0.05)	A (A)	0 (2)
	Overall	8 (9)	0.23 (0.35)	A (A)	-
Fernbank Road & Robert Grant Avenue	EBL	41 (39)	0.56 (0.42)	A (A)	42 (29)
	EBT	14 (13)	0.60 (0.50)	A (A)	109 (79)
	WBT	35 (48)	0.66 (0.90)	B (D)	#102 (#169)
	WBR	7 (6)	0.27 (0.32)	A (A)	14 (16)
	SBL	40 (37)	0.73 (0.72)	C (C)	72 (69)
	SBR	7 (7)	0.35 (0.22)	A (A)	14 (10)
	Overall	23 (28)	0.67 (0.79)	B (C)	-

– indicates that the 95th percentile queue exceeds capacity and cannot be processed by a single cycle. The value shown is the total queue length over two successive cycles, which accounts for the spillover between cycles.
m – indicates that the volume for the 95th percentile queue is metered by an upstream signal.

Table 20 – Future Background, Unsignalized Intersection Operations Analysis, AM Peak (PM Peak)

Intersections	Movements	Delay (s)	Delay LOS	v/c Ratio	95th Queue (m)
Stittsville Main Street & Flewellyn Road	EBLTR	25 (19)	C (C)	0.60 (0.44)	-
	WBLTR	40 (58)	E (F)	0.83 (0.95)	-
	NBLTR	42 (34)	E (D)	0.83 (0.77)	-
	SBLTR	84 (214)	F (F)	1.04 (1.40)	-
	Overall	51 (110)	F (F)	-	-
Huntley Road & Fallowfield Road	EBLTR	11 (10)	B (A)	0.29 (0.15)	-
	WBLTR	10 (11)	A (B)	0.19 (0.35)	-
	NBLTR	11 (11)	B (B)	0.32 (0.28)	-
	SBLTR	13 (12)	B (B)	0.42 (0.36)	-
	Overall	11 (11)	B (B)	-	-
Shea Road & Flewellyn Road	EBLTR	3 (3)	A (A)	0.08 (0.05)	2 (1)
	WBLTR	1 (0)	A (A)	0.00 (0.00)	0 (0)
	NBLTR	92 (164)	F (F)	0.97 (1.21)	70 (116)
	SBLTR	196 (Err)	F (F)	1.28 (Err)	121 (Err)
	Overall	67 (Err)	F (Err)	-	-

In future background conditions, the following capacity issues are observed:

- Carp & Hazeldean
 - Eastbound left has a v/c ratio of 1.01 and 95th percentile queue of 107m in the AM peak hour. This movement continues to be over capacity with queues exceeding the available



storage from existing conditions. Adjustments to signal timing to lengthen green time for the eastbound left appears to address this issue.

- Stittsville Main & Carp is over capacity overall with a 1.01 v/c ratio in the PM peak.
 - Northbound left has a v/c ratio of 1.14 and 95th percentile queue of 140m in the PM peak hour. This movement continues to be over capacity with queues exceeding the available storage from existing conditions.
 - Northbound through-right is at capacity with a v/c ratio of 1.00.
 - Optimizing signal timing appears to resolve issues at this intersection.
- The unsignalized intersections of Stittsville Main & Flewellyn and Shea & Flewellyn are overall LOS F from delay in both peak hours. This is due to the large subdivision and urban boundary expansion applications northwest of Shea & Flewellyn at 5993, 6115, 6141, 5169 Flewellyn Road and the Eder Property at 1770, 1820 Shea Road. The TIA for 5993, 6115, 6141, 5169 Flewellyn Road (which includes sensitivity analysis with the Eder Property) recommends a southbound left turn lane at Stittsville Main & Flewellyn and concludes that Shea & Flewellyn should be reviewed for geometric improvements and is warranted for a signal in their future total conditions.
 - OTM Book 12 signal warrant analysis (Justification 7, in **Appendix H**) indicates that a signal is not warranted for Stittsville Main & Flewellyn with future background volumes. The addition of a southbound left turn lane, as noted above from the previous TIA study, would improve delays. It is also noted that the addition of an auxiliary westbound right turn lane would also improve delays in the future background conditions.
 - An error, “Err”, is noted at Shea & Flewellyn, which is the result of significant delays and the limitations of the Synchro software in processing high delays. Signal warrant analysis (Justification 7, in **Appendix H**) confirms that a signal is warranted for Shea & Flewellyn in future background conditions.

6.4 Future Background – Transit and Roadway Capacity

2046 Priority Network TRANS regional model data on transit capacity and transit ridership in the AM peak period, and lane capacity and auto volumes in the AM peak hour was reviewed, and summarized in **Table 21** and **Table 22**.

Table 21 summarizes 2046 future background transit capacity through Screenline 1 in the AM peak period in the inbound direction (towards CBD). The current bus network is assumed for future background conditions for analysis purposes. Only Screenline 1 was assessed, given that routes nearby the subject lands are generally destined north-south and moving through Screenline 1, and not Screenline 2.



Table 21 – Future Background 2046, Transit Capacity, AM Peak Period

Screenline Station	Roadway	Capacity	Ridership	v/c Ratio
1	West Ridge Drive	360	390	1.08
2	Stittsville Main Street	945	819	0.87
3	Iber Road/Fringewood Dr	540	262	0.49
4	Robert Grant Avenue	270	134	0.50
5	Terry Fox Drive	360	276	0.77
6	Eagleson Road	900	1150	1.28
Screenline 1 Total		3375	3031	0.89

In future background conditions, there is overall residual transit capacity across Screenline 1. It is noted that transit capacity on Screenline 1 is projected to increase from existing conditions, such that it is able to accommodate 2046 ridership across the screenline. The increased capacity on Stittsville Main Street and Eagleson Road would align with the plans for Transit Priority Corridors from the TMP Priority Network. Additional bus service would be anticipated on Iber Road and future service would be provided on Robert Grant Avenue as these roads will be in close proximity to or directly connect to the future terminus of O-Train Line 3 Extension. However, West Ridge Drive and Eagleson Road continue to have insufficient capacity for the projected ridership.

Table 22 summarizes 2046 future background auto roadway capacity through Screenlines 1 and 2 in the AM peak hour inbound direction (towards CBD).

Table 22 – Future Background 2046, Roadway Capacity, AM Peak Hour

Screenline Station	Roadway	Capacity (number of lanes per direction/vphpl)	Auto Volumes	v/c Ratio
1	West Ridge Drive	1/800	229	0.28
2	Stittsville Main Street	1/1000	816	0.82
3	Iber Road	1/800	417	0.52
4	Robert Grant Avenue	1/1000	798	0.80
5	Terry Fox Drive	2/1000	1725	0.86
6	Eagleson Road	2/1000	1979	0.99
Screenline 1 Total		7600 vph	5964	0.78
7	Hazeldean Road	2/1000	1443	0.72
8	Fernbank Road	1/1000	257	0.26
9	Flewellyn Road	1/800	430	0.54
10	Fallowfield Road	1/1200	833	0.69
Screenline 2 Total		5000 vph	2963	0.59

In future background conditions, there continues to be residual auto capacity in the road network across both screenlines. The capacity across Screenline 1 has increased from 4600 vehicles per hour in existing conditions to 7600 vehicles per hour, due to the anticipated completion of Robert Grant Avenue and addition of a lane in each direction on Terry Fox between Winchester Drive and Abbott Street. These



projects appear to adequately accommodate the background growth in the road network across the screenlines.

7 Development Design

As this Official Plan Amendment application aims to redesignate the subject lands with a Future Neighbourhood Overlay, Official Plan Policy 5.6.2.1 can be referred to for direction on the site's transportation network: 'Create 15-minute neighbourhoods supported by funded transit and infrastructure'.

There is currently no concept plan for the transportation network within the subject lands. There are opportunities further in the planning process to ensure that the site's transportation network supports 15-minute neighbourhoods to connect residents with local destinations, where sustainable transportation is prioritized, and uses nearby existing and planned transportation infrastructure in an efficient manner. It is recommended that:

- Future plans and designs of the on-site road network adhere to City of Ottawa standards and focus on Complete Street principles, contributing towards the creation of 15-minute neighbourhoods,
- Protected intersections be provided where suitable with the reconstruction of intersections or the construction of new intersections,
- The future road network is a compact grid that supports directness and connectivity of walking, cycling, and transit routes and efficient built form. The fully-connected grid street network should be designed as access streets,
- Future active transportation linkages be made that connect different uses in the neighbourhood and existing adjacent neighbourhoods, such as residential, employment, commercial, service, and recreational amenities, and
- The methods described in the Traffic Calming Manual be applied to future streets.

Subsequent TIAs for subdivision or site plan applications on the subject lands would be subject to a review of the City of Ottawa's Transportation Demand Management Measures Checklist and Transportation Demand Management Supportive Development Design and Infrastructure Checklist, that will consider site-specific design for sustainable modes.



8 Boundary Street Design

8.1 Active Transportation Facilities

Multi-Modal Level of Service (MMLOS) analysis was conducted for boundary streets in future 2046 background conditions. MMLOS analysis assesses the extent of risk, comfort and stress for active modes and gauge the extent of impedance, delay and reliability for transit and traffic. MMLOS provides a summary for all modes, including Pedestrian (PLOS), Bike (BLOS), Transit (TLOS), Public Realm LOS (PRLOS), and Auto (Auto LOS).

Table 23 summarizes segment MMLOS for boundary streets in future background conditions. MMLOS targets are for the Suburban Transect and included on the left side of the table in green.

Table 23 – Future Background, Segment MMLOS

	Target	Fernbank Rd, Black's Side Rd-West Ridge Dr		Fernbank Rd, West Ridge Dr – Stittsville Main St		Flewellyn Rd, Black's Side Rd – Stittsville Main St		West Ridge Dr, Abbott St – Fernbank Rd		West Ridge Dr, Fernbank Rd – Stittsville Main St	
Side of Street		W	E	W	E	W	E	W	E	W	E
PLOS	C	F	F	B	B	F	F	E	E	B	B
BLOS	C	E	E	B	B	E	E	A	A	A	A
TLOS	E	-	-	C	C	-	-	C	C	-	-
PRLOS	-	D		C		D		C		B	

Fernbank Road

On Fernbank Road, PLOS is below the target with PLOS F west of West Ridge Drive, and exceeds the target with PLOS B east of West Ridge Drive. This is due to the implementation of pedestrian facilities from the TMP project to urbanize Fernbank Road. PLOS would be further improved by reducing the distance between controlled crossings for pedestrians. Similarly, BLOS meets the target east of West Ridge Drive due to the addition of cycling facilities from the urbanization of Fernbank. To support the new community at the subject lands and improve PLOS and BLOS west of West Ridge Drive, **the urbanization should be extended to the frontage of the lands on Fernbank Road**. The addition of active transportation facilities would also improve the PRLOS west of West Ridge Drive. Further improvements to the PRLOS include **upgrading existing bus stops with a shelter and adequate platform space and waiting area**. TLOS exceeds its target on Fernbank between West Ridge Drive and Stittsville Main Street.



Flewellyn Road

Flewellyn Road along the subject lands does not meet PLOS or BLOS targets, as there are no planned changes to the rural cross-section and speed limit of the roadway. Therefore, similar to Fernbank Road, **the urbanization of Flewellyn Road through the addition of pedestrian and cycling facilities and reduction of the speed limit are recommended to meet PLOS and BLOS targets, and improve PRLOS.**

West Ridge Drive

On West Ridge Drive, there are generally good quality facilities for active transportation. Sidewalks on both sides of the road from Abbott Street to Stittsville Main Street. PLOS north of Fernbank is E as the sidewalk width is below 1.8m and there are long distances between controlled crossings. Upgrading the sidewalk to be at least 1.8m wide and adding more pedestrian crossings can improve PLOS to meet its targets. Planned bike lanes on West Ridge Drive result in BLOS exceeding its target. TLOS also exceeds its target.

9 Transportation Demand Management

This module is to be completed in subsequent steps in the development application process with more detail on the planned development on the subject lands.

10 Neighbourhood Traffic Calming

The Revisions to the Transportation Impact Assessment Guidelines (2023) state that this module is undertaken if the development meets all the following criteria along the route(s) site generated traffic is expected to utilize between an arterial road and the site's access:

1. Access to collector roadway or local roadway; (✓)
2. 'Significant sensitive land use presence' exists, where there is at least two of the following land uses adjacent to the subject street segment: (✓)
 - a. School (within 250m walking distance);
 - b. Park; (✓)
 - c. Retirement or older adult facility (i.e. long-term care and retirement homes);
 - d. Licensed child care centre;



- e. Community centre; or
- f. 50% or greater of adjacent property along the route(s) are occupied by residential lands, and a minimum of ten occupied residential dwellings are present on the route. (✓)
- 3. The development application is for Zoning By-Law Amendment or Draft Plan of Subdivision; (X)
- 4. At least 75 site-generated auto trips; (✓)
- 5. Site trip infiltration is expected. Site-generated traffic will increase peak hour volumes along the route by 50% or more. (✓)

Therefore, this Report will not be completing this module. However, future TIAs for subsequent zoning by-law amendment or draft plan of subdivision applications on the subject lands will review this module.

11 Transit

The City's Urban and Village Boundary Expansion - Infrastructure Capacity Assessment TOR Section 6.6 outlines the criteria for the assessment of availability of higher order transit infrastructure, shown below in **Figure 18**.

Transit Infrastructure Availability	Proximity to Property's Centroid from the nearest station		
	≤ 600m radius	> 600m radius and contiguous with existing urban area	> 600m radius and not contiguous with existing urban area
Higher order transit or equivalent available now (including Stage 2)	Available	Transit Infrastructure and Service Agreement required per Policy 7	Not Available
Higher order transit or equivalent included in the 2013 TMP Affordable Network Plan or its successor.	Available	Transit Infrastructure and Service Agreement required per Policy 7	Not Available
Higher order transit or equivalent not available now and not included in the 2013 TMP Affordable Network Plan or its successor.	Not Available	Not Available	Not Available

Figure 18 – TOR Transit Infrastructure Availability Assessment

The subject lands:

- fall beyond a 600m radius from the nearest transit station,



- are contiguous with the existing urban area, and
- higher order transit or equivalent is not available now and not included in the 2025 TMP Part 2 - Priority Network.

Therefore, higher order transit infrastructure is deemed to be 'Not Available' for the subject lands.

11.1 Route Capacity

As summarized in **Table 15** in **Section 5.1.4**, the subject lands are expected to generate 367 transit trips from and 120 transit trips to the subject lands in the AM peak hour, and 156 transit trips from and 261 transit trips to the subject lands in the PM peak hour. This would place additional demand on the bus routes nearby the lands such as Routes 61, 163, 262, 263, and 266 and/or require adjustments to the bus routing or bus stops in the area to serve the lands. The subject lands also create the critical mass needed to support new service or routes.

An average capacity of 83 passengers per bus was derived based on the capacities of OC Transpo's fleet of standard, articulated, and double-decker buses. In the AM peak hour, the site-generated transit trips summarized above would approximately equate to the following number of buses, not considering future residual capacity on the transit network:

- 4-5 buses eastbound (from the subject lands) and 1-2 buses westbound (towards the subject lands) in the AM peak hour
- 1-2 buses eastbound and 3-4 buses westbound in the PM peak hour

Frequency of existing nearby bus routes in the peak hour is summarized below in **Table 24**. Considering existing bus routes that are the closest walking distance to the subject lands, the site-generated transit trips for the subject lands could be accommodated through **increasing Frequent Route 61 to 15-minute headways in the peak hour/peak direction** for trips departing from Stittsville and **converting Connexion Route 262 on West Ridge Drive to a Local Route with 30-minute headway at a minimum**. Together, the proposed 15-minute headway on Route 61 and 30-minute headway on Route 262 would provide 6 buses in the peak hour per direction within a reasonable walking distance to the subject lands. Additionally, as discussed in **Section 6.4** on future background network capacity, transit service on West Ridge Drive is projected to be over capacity in 2046 future background conditions, with a ridership of 390 in the AM peak period. This equates to approximately 2-3 buses in the AM peak hour, which suggests that bus service on West Ridge may need to be upgraded from a Connexion to a Local or Frequent Route.

Furthermore, note that a new street network proposed as part of the development of the subject lands may support new, future bus service or rerouting of existing bus service through the subject lands. As the southern half of the subject lands extend between Fernbank Road and Flewellyn Road, the new street network may provide a new north-south vehicular connection between these two roads.



Table 24 – Nearby Bus Routes Frequency

Route	AM Peak Hour	PM Peak Hour	Potential Change
Frequent Route 61	2 buses eastbound 2 buses westbound	2 buses eastbound 2 buses westbound	+2 buses per peak hour
Local Route 163	2 buses eastbound 2 buses westbound	2 buses eastbound 2 buses westbound	
Connexion Route 262	Approx. 1 bus eastbound	Approx. 1 bus westbound	+2 buses per peak hour
Connexion Route 263	Approx. 1 bus eastbound	Approx. 1 bus westbound	
Connexion Route 266	Approx. 1 bus eastbound	Approx. 1 bus westbound	

11.2 Transit Priority

There is no transit service on the roadways that border the subject lands, so there is no impact of the site's accesses to transit travel times. However, there may be impacts to transit travel times from the site-generated trips added to roadways in the study area that have existing transit service.

Future background intersection operations in **Section 6.3** and future total intersection operations in **Section 12.2** were compared. A significant increase in delay of more than 60s is noted for the following bus movements at study intersections:

- Stittsville Main & Carp
 - Route 61 – Northbound left and eastbound right
- Stittsville Main & Flewellyn and Stittsville Main & Fallowfield
 - Route 263 - Northbound through and southbound through

These bus movements at both intersections are related to intersection operations issues that are discussed in more detail with recommended improvements in **Section 12.2**. In addition to improving operational issues, the implementation of Transit Priority Corridors on Hazeldean Road, Stittsville Main Street, and Fernbank Road are supported as they would further mitigate impacts from the subject lands on the Stittsville Main & Carp intersection as well as enhance transit service in the study area.



12 Intersection Design

12.1 Access Intersection Design

Proximity to Adjacent Driveways

There is no conceptual transportation network for the subject lands at this time. However, adjacent driveways to the lands to be aware of are:

- 2 driveways at 6465 Fernbank Road
- 1 driveway at 6468 Fernbank Road
- 1 driveway at 6416 Fernbank Road
- 1 driveway at 6415 Fernbank Road
- 1 driveway at 6461 Flewellyn Road
- 1 driveway at 6452 Flewellyn Road
- 1 driveway at 6434 Flewellyn Road
- 1 driveway at 6433 Flewellyn Road
- 1 driveway at 64111 Flewellyn Road
- 1 driveway at 6420 Flewellyn Road

Proximity to Adjacent Intersections

There are no signalized intersections adjacent to the subject lands. The closest signalized intersections are located at Stittsville Main Street & Fernbank Road and Stittsville Main Street & West Ridge Drive.

Unsignalized intersections adjacent to the site are:

- Fernbank Road & Black's Side Road – 1-way stop control for southbound on Black's Side Road
- Fernbank Road & West Ridge Drive – all-way stop control
- Flewellyn Road & Ridingview Crescent – 1-way stop control for southbound on Ridingview Crescent
- Flewellyn Road & W Healey Avenue – 1-way stop control for southbound on W Healey Avenue

12.2 Future Total 2046 – Intersection Operations

Figure 19 below shows future total 2046 traffic volumes, which adds site-generated trips to future background 2046 volumes.



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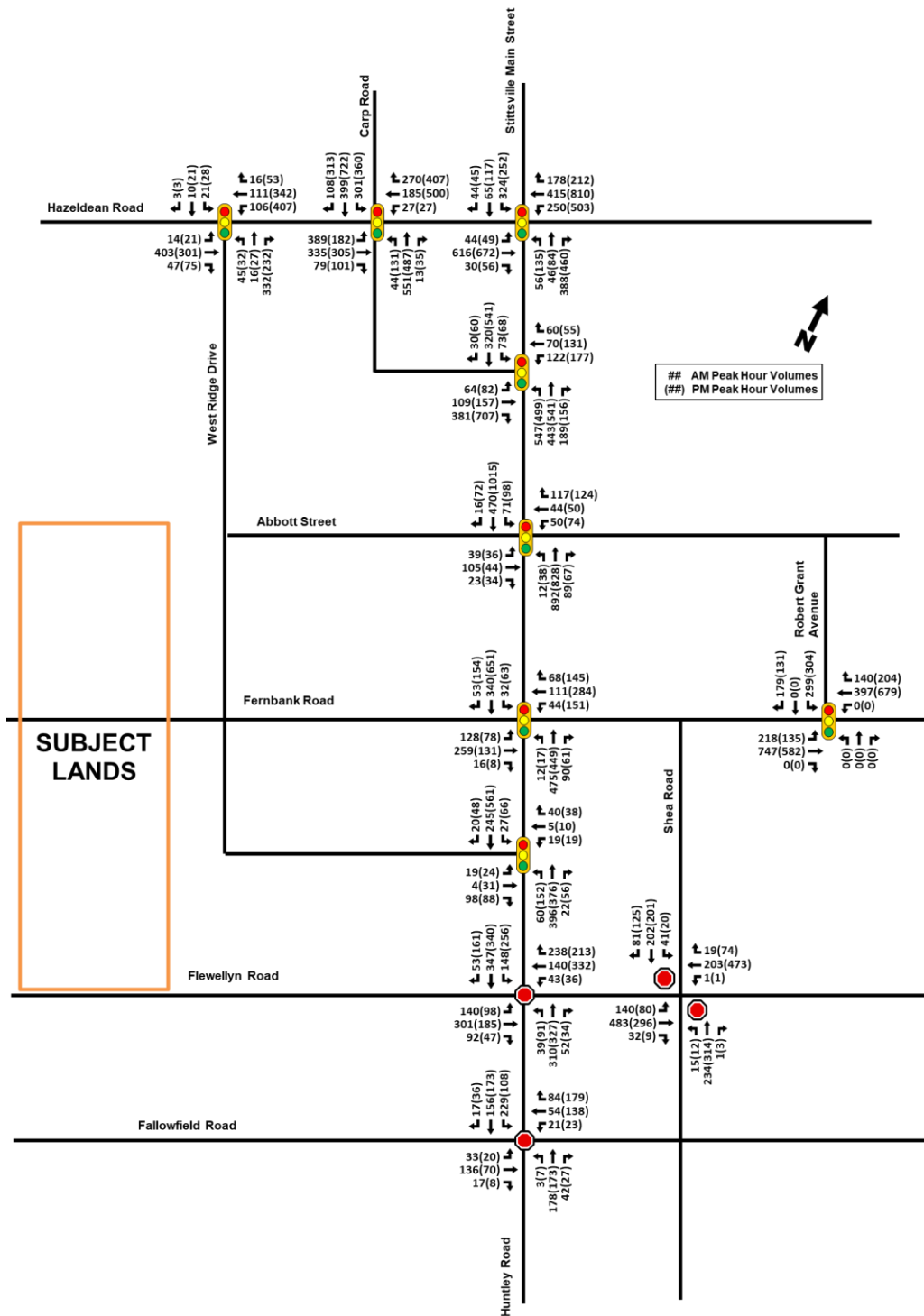


Figure 19 – Future Total 2046 Traffic Volumes



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Traffic operations analysis for study area intersections in future total 2046 conditions is summarized in **Table 25 and Table 26**. No changes were made to the signal timing between future background and future total scenarios, but mitigation measures in future total conditions are discussed below. Detailed results are included in **Appendix E**.

Table 25 – Future Total, Signalized Intersection Operations Analysis, AM Peak (PM Peak)

Intersections	Movements	Delay (s)	v/c Ratio	v/c LOS	95th Queue (m)
West Ridge Drive & Hazeldean Road	EBL	5 (5)	0.02 (0.03)	A (A)	3 (3)
	EBTR	8 (6)	0.40 (0.33)	A (A)	45 (31)
	WBL	7 (14)	0.19 (0.64)	A (B)	12 (60)
	WBTR	5 (7)	0.12 (0.34)	A (A)	12 (33)
	NBLT	27 (27)	0.26 (0.25)	A (A)	16 (15)
	NBR	9 (9)	0.62 (0.54)	B (A)	18 (16)
	SBL	24 (25)	0.10 (0.14)	A (A)	7 (9)
	SBTR	21 (22)	0.04 (0.09)	A (A)	5 (8)
	Overall	9 (10)	0.46 (0.50)	A (A)	-
Carp Road & Hazeldean Road	EBL	161 (87)	1.22 (0.96)	F (E)	#165 (#72)
	EBTR	36 (25)	0.47 (0.31)	A (A)	52 (46)
	WBL	47 (36)	0.21 (0.11)	A (A)	14 (13)
	WBT	64 (79)	0.71 (0.97)	C (E)	63 (#195)
	WBR	11 (11)	0.60 (0.60)	A (A)	23 (42)
	NBL	65 (91)	0.39 (0.80)	A (C)	22 (#65)
	NBTR	50 (52)	0.71 (0.69)	C (B)	#91 (86)
	SBL	33 (77)	0.70 (0.91)	B (E)	#64 (#140)
	SBT	20 (36)	0.24 (0.59)	A (A)	47 (99)
	SBR	3 (10)	0.15 (0.45)	A (A)	6 (36)
	Overall	52 (46)	0.85 (0.86)	D (D)	-
Stittsville Main Street & Hazeldean Road	EBL	17 (18)	0.12 (0.19)	A (A)	12 (13)
	EBTR	30 (45)	0.51 (0.77)	A (C)	79 (104)
	WBL	29 (69)	0.65 (1.00)	B (E)	#82 (#206)
	WBTR	22 (28)	0.41 (0.65)	A (B)	67 (#156)
	NBL	25 (33)	0.16 (0.39)	A (A)	15 (34)
	NBT	38 (47)	0.15 (0.32)	A (A)	17 (29)
	NBR	41 (28)	0.88 (0.87)	D (D)	69 (58)
	SBL	47 (44)	0.80 (0.69)	C (B)	75 (61)
	SBT	36 (49)	0.17 (0.41)	A (A)	22 (38)
	SBR	1 (1)	0.09 (0.13)	A (A)	0 (0)
	Overall	31 (39)	0.65 (0.87)	B (D)	-



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Intersections	Movements	Delay (s)	v/c Ratio	v/c LOS	95th Queue (m)
Stittsville Main Street & Carp Road	EBL	32 (29)	0.31 (0.26)	A (A)	18 (23)
	EBT	31 (29)	0.34 (0.32)	A (A)	26 (38)
	EBR	10 (57)	0.67 (1.02)	B (F)	20 (#149)
	WBL	41 (19)	0.58 (0.36)	A (A)	31 (32)
	WBTR	20 (15)	0.39 (0.25)	A (A)	22 (30)
	NBL	23 (559)	0.79 (2.17)	C (F)	#102 (#192)
	NBTR	17 (89)	0.66 (1.09)	B (F)	#137 (#211)
	SBL	8 (19)	0.17 (0.31)	A (A)	9 (14)
	SBT	23 (70)	0.49 (0.99)	A (E)	59 (#157)
	SBR	1 (1)	0.05 (0.11)	A (A)	0 (0)
	Overall	20 (136)	0.68 (1.34)	B (F)	-
Stittsville Main Street & Abbott Street	EBL	34 (42)	0.25 (0.31)	A (A)	13 (14)
	EBTR	35 (26)	0.50 (0.32)	A (A)	30 (19)
	WBL	35 (45)	0.29 (0.45)	A (A)	16 (24)
	WBTR	16 (20)	0.50 (0.56)	A (A)	21 (26)
	NBL	4 (6)	0.02 (0.18)	A (A)	2 (6)
	NBT	11 (9)	0.71 (0.63)	C (B)	125 (104)
	NBR	2 (2)	0.09 (0.06)	A (A)	4 (3)
	SBL	6 (5)	0.26 (0.26)	A (A)	m6 (m4)
	SBTR	4 (10)	0.39 (0.82)	A (D)	28 (m145)
	Overall	12 (11)	0.64 (0.75)	B (C)	-
Stittsville Main Street & Fernbank Road	EBL	29 (27)	0.45 (0.35)	A (A)	29 (20)
	EBTR	34 (23)	0.68 (0.32)	B (A)	55 (28)
	WBL	24 (30)	0.21 (0.52)	A (A)	12 (34)
	WBT	24 (32)	0.28 (0.65)	A (B)	24 (56)
	WBR	7 (6)	0.18 (0.30)	A (A)	8 (11)
	NBL	10 (13)	0.03 (0.11)	A (A)	4 (6)
	NBTR	15 (15)	0.60 (0.55)	A (A)	95 (88)
	SBL	11 (12)	0.09 (0.17)	A (A)	7 (13)
	SBTR	12 (26)	0.41 (0.84)	A (D)	58 (#194)
	Overall	19 (22)	0.59 (0.75)	A (C)	-
Stittsville Main Street & West Ridge Drive	EBL	36 (36)	0.17 (0.21)	A (A)	9 (10)
	EBTR	13 (17)	0.36 (0.41)	A (A)	14 (19)
	WBL	33 (33)	0.12 (0.11)	A (A)	9 (9)
	WBTR	15 (16)	0.19 (0.20)	A (A)	9 (10)
	NBL	6 (9)	0.08 (0.30)	A (A)	7 (20)
	NBTR	7 (7)	0.35 (0.37)	A (A)	39 (43)



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Intersections	Movements	Delay (s)	v/c Ratio	v/c LOS	95th Queue (m)
	SBL	6 (6)	0.04 (0.11)	A (A)	4 (8)
	SBT	6 (9)	0.22 (0.47)	A (A)	22 (63)
	SBR	1 (2)	0.02 (0.05)	A (A)	0 (2)
	Overall	8 (9)	0.33 (0.42)	A (A)	-
Fernbank Road & Robert Grant Avenue	EBL	45 (41)	0.69 (0.54)	B (A)	61 (39)
	EBT	17 (13)	0.69 (0.54)	B (A)	146 (95)
	WBT	44 (94)	0.79 (1.10)	C (F)	#132 (#225)
	WBR	7 (6)	0.28 (0.34)	A (A)	14 (16)
	SBL	42 (39)	0.74 (0.74)	C (C)	75 (73)
	SBR	7 (7)	0.37 (0.28)	A (A)	15 (12)
	Overall	27 (45)	0.73 (0.82)	C (D)	-

– indicates that the 95th percentile queue exceeds capacity and cannot be processed by a single cycle. The value shown is the total queue length over two successive cycles, which accounts for the spillover between cycles.
m – indicates that the volume for the 95th percentile queue is metered by an upstream signal.

Table 26 – Future Total, Unsignalized Intersection Operations Analysis, AM Peak (PM Peak)

Intersections	Movements	Delay (s)	Delay LOS	v/c Ratio	95th Queue (m)
Stittsville Main Street & Flewellyn Road	EBLTR	232 (53)	F (F)	1.42 (0.88)	-
	WBLTR	105 (251)	F (F)	1.09 (1.47)	-
	NBLTR	103 (131)	F (F)	1.08 (1.17)	-
	SBLTR	253 (460)	F (F)	1.47 (1.95)	-
	Overall	182 (269)	F (F)	-	-
Huntley Road & Fallowfield Road	EBLTR	12 (11)	B (B)	0.32 (0.17)	-
	WBLTR	11 (14)	B (B)	0.26 (0.50)	-
	NBLTR	12 (12)	B (B)	0.35 (0.33)	-
	SBLTR	18 (14)	C (B)	0.63 (0.49)	-
	Overall	14 (13)	B (B)	-	-
Shea Road & Flewellyn Road	EBLTR	3 (3)	A	0.11 (0.08)	3 (2)
	WBLTR	0 (0)	A	0.00 (0.00)	0 (0)
	NBLTR	438 (418)	F	1.79 (1.79)	143 (177)
	SBLTR	Err (Err)	Err (Err)	Err (Err)	Err (Err)
	Overall	Err (Err)	Err (Err)	-	-

In future total conditions, the following operational issues are observed:



- Carp & Hazeldean
 - Eastbound left has a v/c ratio of 1.22 and 95th percentile queue of 165m in the AM peak hour which exceeds the available storage length. This movement continues to be over capacity from existing conditions. Adjustments to signal timing to lengthen green time for the eastbound left appears to address this issue.
- Stittsville Main & Hazeldean
 - Westbound left is at capacity with a v/c ratio of 1.00 and 95th percentile queue of 206m in the PM peak hour. The queue is accommodated by the existing storage capacity.
- Stittsville Main & Carp
 - Northbound left has a v/c ratio of 2.17 and a 95th percentile queue of 192m in the PM peak hour which exceeds the available capacity. This movement continues to be over capacity from existing conditions.
 - Northbound through-right has a v/c ratio of 1.09 in the PM peak hour. This movement continues to be over capacity from existing conditions.
 - Eastbound right has a v/c ratio of 1.02 and 95th percentile queue of 149m in the PM peak hour which exceeds the available capacity.
 - Southbound through is approaching capacity with a v/c ratio of 0.99 in the PM peak hour.
 - Extending the cycle length of the intersection from 90s to 120s is recommended to improve the capacity issues for these movements. A 120s cycle length in the PM peak hour improves the v/c ratio of the northbound left to 1.02, the northbound through right to 0.79, and eastbound right to a 0.99. A reduction of approximately 50 northbound left vehicles would allow the northbound left to operate below the v/c ratio threshold of 1.0. The northbound left and eastbound right auxiliary lanes may need to be extended to accommodate 95th percentile queues.
- Fernbank & Robert Grant
 - Westbound through has a v/c ratio of 1.10 in the PM peak hour. This capacity issue can be addressed through optimizing signal timing splits.
- The unsignalized intersections of Stittsville Main & Flewellyn and Shea & Flewellyn are overall LOS F from delay in both peak hours. The intersections continue to be over capacity from future background conditions due to the large subdivision and urban boundary expansion applications northwest of Shea & Flewellyn at 5993, 6115, 6141, 5169 Flewellyn Road and the Eder Property at 1770, 1820 Shea Road, in addition to site-generated trips from the subject lands. An error, “Err”, is noted at Shea & Flewellyn, which is the result of significant delays and the limitations of the Synchro software in processing high delays.



- For Stittsville Main & Flewellyn, the left turn lane warrant for unsignalized intersections was conducted as per the MTO Design Supplement for TAC 2017. Auxiliary lanes were warranted for all left turns: 15m for westbound left, 55m for southbound left, 30m for eastbound left, and 30m for northbound left. The auxiliary left turn lanes improve delays on these movements to an overall intersection LOS E, but the eastbound, northbound, and southbound through movements still experience LOS F delay. All left turn warrants also indicated that a traffic signal may be warranted.
- A signal for Stittsville Main & Flewellyn was not warranted in future background conditions. A signal warrant as per OTM Book 12 (Justification 7) was conducted for Stittsville Main & Flewellyn in future total conditions, and is included in **Appendix H**. The analysis confirms that a signal is warranted at this intersection with future total 2046 volumes. It is therefore recommended that a roundabout or signal is considered for this intersection in order to accommodate both the growth from the subject lands, as well as the subdivision northwest of Shea & Flewellyn. For a potential signal, a southbound auxiliary left turn is still recommended to maintain satisfactory traffic operations.
- At Shea & Flewellyn, the following auxiliary turn lane lengths were warranted based on the MTO Design Supplement for TAC 2017: 15m for westbound left, 15m for southbound left, and 30m eastbound left. However, turn lanes may be challenging to implement due to the intersection's skewed geometry. Safety concerns at this intersection due to geometry is a known concern.¹ A signal is warranted in future background conditions. A signal warrant (Justification 7, in **Appendix H**) with future total volumes confirms that a signal continues to be warranted at this intersection in future total conditions. Therefore, a roundabout or signal should be considered for Shea & Flewellyn due to projected traffic operations and safety concerns in future background conditions.

12.3 Future Total 2046 – Transit and Roadway Capacity

Table 27 below compares 2046 future background transit capacity through Screenline 1 in the AM peak period in the inbound direction (towards CBD) with site-generated transit trips from the subject lands.

¹ Choi, Sannah. "Crooked intersection remains 'dangerous,' despite safety upgrades". CBC. June 30, 2025. <https://www.cbc.ca/news/canada/ottawa/crooked-intersection-remains-dangerous-despite-safety-upgrades-1.7566499>



Table 27 – Future Total 2046, Transit Capacity, AM Peak Period

Screenline Station	Roadway	Future Background Capacity	Future Background Ridership	Site-Generated Transit Trips
1	West Ridge Drive	360	390	
2	Stittsville Main Street	945	819	
3	Iber Road/Fringewood Dr	540	262	
4	Robert Grant Avenue	270	134	
5	Terry Fox Drive	360	276	
6	Eagleson Road	900	1150	
Screenline 1 Total		3375	3031	334

Based on TRANS model data, there is overall residual transit capacity in the AM peak period in future background conditions. Based on trip generation calculations from **Section 5.1.4**, 668 site-generated transit trips are projected to leave the subject lands in the AM peak period. Note that this is the value in the peak period, which differs from the transit trip values shown in **Table 15** for the peak hour. The trip distribution from **Section 5.1.5** assumes that 50% of trips are destined to the north, generally through Screenline 1. When applied to the 668 transit trips, this results in approximately 334 transit trips that will cross Screenline 1. The addition of 334 transit trips to the future background ridership of 3031 would result in Screenline 1 very close to capacity. This indicates that the added transit ridership from the subject lands would effectively use the residual transit capacity in future background conditions at a screenline level.

Table 28 – Future Total 2046, Roadway Capacity, AM Peak Hour

Screenline Station	Roadway	Future Background Capacity (number of lanes per direction/vphpl)	Future Background Auto Volumes	Site-Generated Auto Trips
1	West Ridge Drive	1/800	229	79
2	Stittsville Main Street	1/1000	816	180
3	Iber Road	1/800	417	-
4	Robert Grant Avenue	1/1000	798	72
5	Terry Fox Drive	2/1000	1725	Approx. 50
6	Eagleson Road	2/1000	1979	Approx. 50
Screenline 1 Total		7600 vph	5964	Approx. 431
7	Hazeldean Road	2/1000	1443	36
8	Fernbank Road	1/1000	257	Approx. 50
9	Flewellyn Road	1/800	430	Approx. 50
10	Fallowfield Road	1/1200	833	Approx. 50
Screenline 2 Total		5000 vph	2963	Approx. 186

As summarized in **Table 15** in **Section 5.1.4**, there are 720 auto driver trips in the AM peak hour leaving the subject lands. The trip distribution in **Section 5.1.5** assumed that 90% of these trips (640 trips) are destined to the north or east, which will travel through Screenlines 1 and 2. When the trips are compared to the future background roadway capacity above in **Table 28**, there will be ample roadway capacity across both screenlines to accommodate the site-generated auto trips from the subject lands in future total conditions.



13 Review of Network Concept

Overall, the subject lands require minimal changes to the TMP Priority Network concepts for auto and transit networks. Based on screenline analysis, the trips from the subject lands will effectively utilize residual capacity in the roadway and transit network in the future total 2046 conditions. Minor changes to TMP concepts are recommended to better support transit and active transportation usage to and from the subject lands.

13.1 Transit

In future total conditions, the transit network is projected to reach capacity based on screenline analysis. Also based on route capacity and transit priority discussions in **Section 11**, adjustments to nearby bus routes are likely required to support the subject lands, such as additional service on Route 61 and on West Ridge Drive, as well as advancing the planned Transit Priority Corridors on Stittsville Main, Hazeldean, and Fernbank.

13.2 Access to Collector/Arterials

The subject lands benefit from access to east-west collectors Fernbank Road (west of Stittsville Main Street) and Flewellyn Road, and north-south collector West Ridge Drive. The lands are also in close proximity to the major north-south arterial Stittsville Main Street, and east-west arterials Fernbank Road (east of Stittsville Main) and Fallowfield Road. The site-generated auto trips from the lands will use residual capacity in the roadway network in future total conditions, as shown by screenline analysis.

Urban and Village Boundary Expansion – Infrastructure Capacity Assessment TOR - Roads

In reference to the TOR Section 6.12, the lands do not have direct access to an existing or planned urban arterial roadway identified in the 2025 TMP Priority Network. TOR Section 6.12.b. states that urban arterial roads are important to active transportation infrastructure availability, capacity, and connectivity, and that where there is no existing or planned urban arterial, the developer must enter into an agreement with the City to extend the active transportation network and connect it to the site. The active transportation infrastructure must either be available at the time of development approval or have sufficient funding for implementation. In establishing the cost, consideration should be given to, but not limited to, property acquisition or right-of-way conveyance, engineering, utilities, design, construction, and contingency.

Based on this policy, it is recommended that the planned urbanization of Fernbank Road is advanced and that the urbanization limits are extended to the boundaries of the subject lands, and that active transportation connections between the subject lands and the Trans Canada Trail are secured with regards to the provincially significant wetlands (PSW). There is no planned urbanization of Flewellyn Road or Stittsville Main Street south of Bobcat Way, however, urbanizing Flewellyn Road between the boundaries of the subject lands and Shea Road, and Stittsville Main Street between West Ridge Drive and Flewellyn Road should be considered as it may benefit not only the subject lands but the large subdivision and urban boundary expansion application northwest of Shea & Flewellyn at 5993, 6115, 6141, 5169 Flewellyn Road and the Eder Property at 1770, 1820 Shea Road.



14 Conclusion

This Transportation Report has reviewed the available transportation capacity through an evaluation of whether the existing and planned transportation infrastructure (such as roads and public transit) can support the proposed development on the subject lands, and recommends transportation improvements to serve the subject lands.

Existing Conditions 2025

In existing conditions, all movements at the study intersections operate at an acceptable LOS except for the following, which can be resolved with optimizing signal timing splits.

- Eastbound left at Hazeldean & Carp in the AM peak hour, with a v/c ratio of 1.01 and a 95th percentile queue of 106m which exceeds the storage length of approximately 90m, and
- Northbound left at Stittsville Main & Carp in the PM peak hour, with a v/c ratio of 1.04 and 95th percentile queue of 140m which exceeds the storage length of approximately 80m.

Custom screenlines made for the subject lands were analyzed. With respect to network capacity in existing conditions, there is currently insufficient transit capacity for ridership across Screenline 1, specifically on West Ridge Drive and Eagleson Road. There is residual auto roadway capacity across both screenlines.

Planned Conditions

The subject lands would benefit from nearby, planned TMP Priority Network projects, such as Transit Priority Corridors on Stittsville Main Street, Hazeldean Road, and Fernbank Road, O-Train Line 3 Extension, road urbanization and main street improvement projects on Stittsville Main Street and Fernbank Road, expanded roadway capacity through Carp Road and Robert Grant Avenue, and bike lanes on West Ridge Drive.

There are rapidly growing parts of Stittsville within the study area, specifically active development applications for large subdivision developments in southern Stittsville.

Development-Generated Travel Demand

In total, the subject lands are projected to generate:

- 955 two-way vehicular trips in the AM peak hour and 1,046 two-way vehicular trips in the PM peak hour,
- 487 two-way transit trips in the AM peak hour and 414 two-way transit trips in the PM peak hour,
- 71 two-way cycling trips in the AM peak hour and 70 two-way cycling trips in the PM peak hour, and
- 274 two-way walking trips in the AM peak hour and 293 two-way walking trips in the PM peak hour.



Future Background 2046

In future background conditions, operational issues are noted for the following.

- The eastbound left at Carp & Hazeldean with a v/c ratio of 1.01 and 95th percentile queue of 107m in the AM peak hour. This movement continues to be over capacity with queues exceeding the available storage from existing conditions but can be resolved with adjustments to signal timing.
- The northbound left at Stittsville Main & Carp with a v/c ratio of 1.14 and 95th percentile queue of 140m in the PM peak hour. Stittsville Main & Carp is over capacity overall with a 1.01 v/c ratio in the PM peak. The northbound left continues to be over capacity with queues exceeding the available storage from existing conditions but can be resolved with adjustments to signal timing.
- The unsignalized intersections of Stittsville Main & Flewellyn and Shea & Flewellyn are overall LOS F from delay in both peak hours. This is due to the large subdivision and urban boundary expansion applications northwest of Shea & Flewellyn at 5993, 6115, 6141, 5169 Flewellyn Road and the Eder Property at 1770, 1820 Shea Road. A signal is warranted in future background conditions for Shea & Flewellyn.

Regarding network capacity based on the TRANS model data, there is overall residual transit capacity across Screenline 1 in future background conditions likely from planned transit improvements and increased capacity in the area. However, West Ridge Drive and Eagleson Road continue to have insufficient capacity for the projected ridership on the screenline. There is residual auto roadway capacity across both screenlines in future background conditions.

Future Total 2046 - Recommendations

In future total conditions, operational issues are noted for the following.

- The eastbound left at Carp & Hazeldean with a v/c ratio of 1.22 and 95th percentile queue of 165m in the AM peak hour which exceeds the available storage length. This movement continues to be over capacity from existing conditions but can be resolved with adjustments to signal timing.
- Several movements at Stittsville Main & Carp.
 - Northbound left has a v/c ratio of 2.17 and a 95th percentile queue of 192m in the PM peak hour which exceeds the available capacity. This movement continues to be over capacity from existing conditions.
 - Northbound through-right has a v/c ratio of 1.09 in the PM peak hour. This movement continues to be over capacity from existing conditions.
 - Eastbound right has a v/c ratio of 1.02 and 95th percentile queue of 150m in the PM peak hour which exceeds the available capacity.



- Extending the cycle length of the intersection from 90s to 120s is recommended to improve the capacity issues for these movements. Additionally, a reduction of approximately 50 northbound left vehicles would allow the northbound left to operate below the v/c ratio threshold of 1.0. The northbound left and eastbound right auxiliary lanes may need to be extended to accommodate 95th percentile queues.
- Westbound through at Fernbank & Robert Grant in the PM peak hour. Optimizing signal timing splits is recommended to address this issue.
- The unsignalized intersections of Stittsville Main & Flewellyn and Shea & Flewellyn are overall LOS F from delay in both peak hours. The intersections continue to be over capacity from future background conditions due to the large subdivision and urban boundary expansion applications northwest of Shea & Flewellyn at 5993, 6115, 6141, 5169 Flewellyn Road and the Eder Property at 1770, 1820 Shea Road, in addition to site-generated trips from the subject lands.
 - **It is recommended that a roundabout or a traffic signal is considered for Stittsville Main & Flewellyn in future total conditions**, in addition to Shea & Flewellyn in future background conditions based on projected traffic operations and safety concerns at Shea & Flewellyn.

In terms of screenlines in future total conditions with the addition of site-generated trips, the transit network across Screenline 1 will reach capacity and the roadway network will remain well under capacity. Therefore, site-generated trips will effectively use future residual transit and roadway capacity at a network level.

However, minor changes to TMP concepts are recommended based on future background MMLOS analysis and Section 6.12.b. of the City's Urban and Village Boundary Expansion – Infrastructure Capacity Assessment TOR, to better support transit and active transportation usage to and from the lands:

- Advance the planned Transit Priority Corridors in the study area, and
- Extend the limits of the planned Fernbank Road urbanization to the subject lands, and consider urbanizing Flewellyn Road between the subject lands and Shea Road, and Stittsville Main Street between West Ridge Drive and Flewellyn Road.

Lastly, at a more site-specific level, **it is recommended to secure active transportation connections to the Trans Canada Trail from the lands to support active transportation and increase frequency near the subject lands for Route 61 and service on West Ridge Drive** to accommodate the site-generated transit trips within reasonable walking distance from the lands, based on additional route capacity analysis.



Appendices



Appendix A Turning Movement Counts



Turning Movement Count - Study Results

HAZELDEAN RD @ KITTIWAKE DR/WEST RIDGE DR

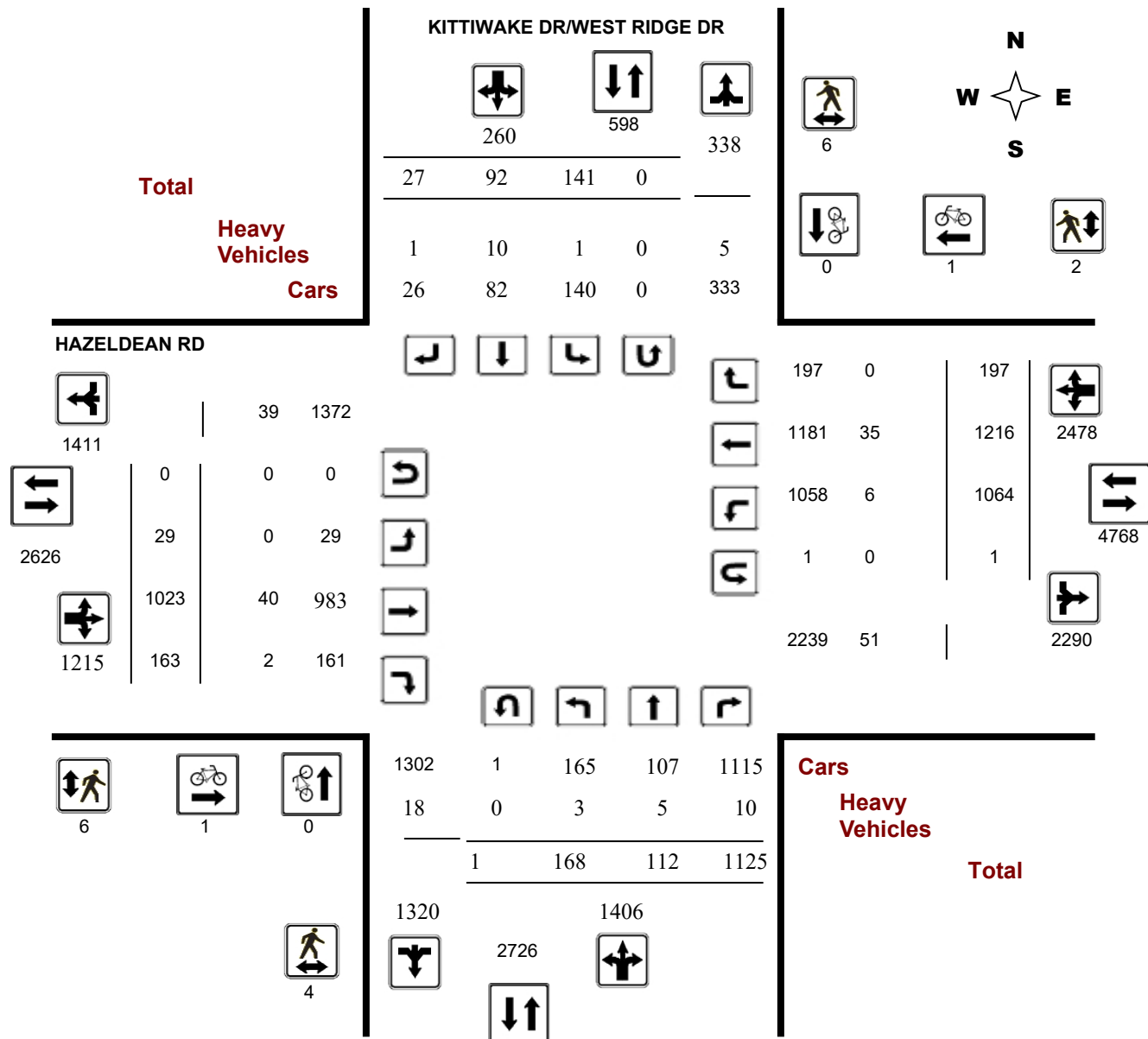
Survey Date: Tuesday, January 11, 2022

Start Time: 07:00

WO No: 40027

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

HAZELDEAN RD @ KITTIWAKE DR/WEST RIDGE DR

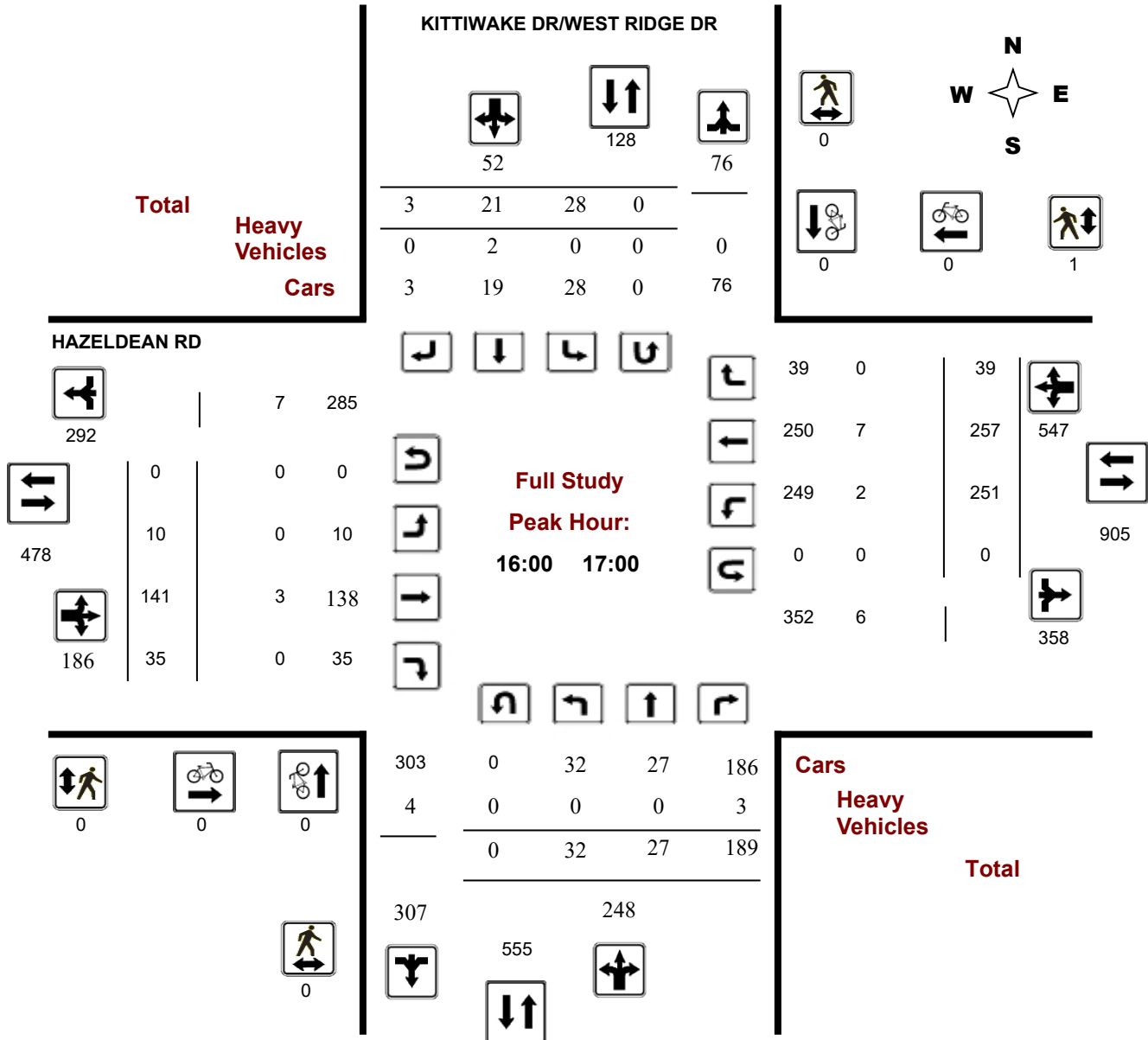
Survey Date: Tuesday, January 11, 2022

WO No: 40027

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Study Results

HAZELDEAN RD @ KITTIWAKE DR/WEST RIDGE DR

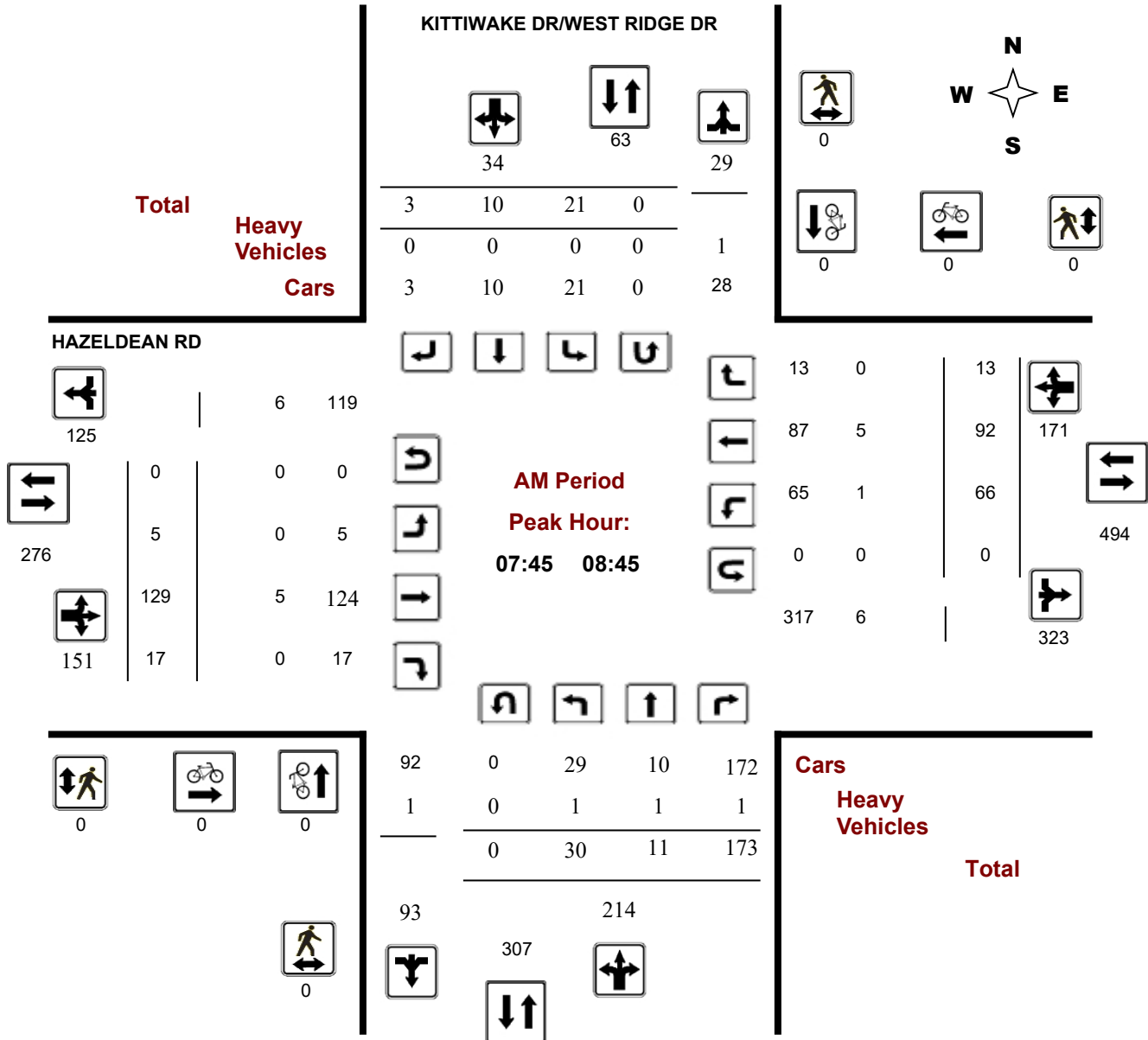
Survey Date: Tuesday, January 11, 2022

WO No: 40027

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



Turning Movement Count - Study Results

HAZELDEAN RD @ KITTIWAKE DR/WEST RIDGE DR

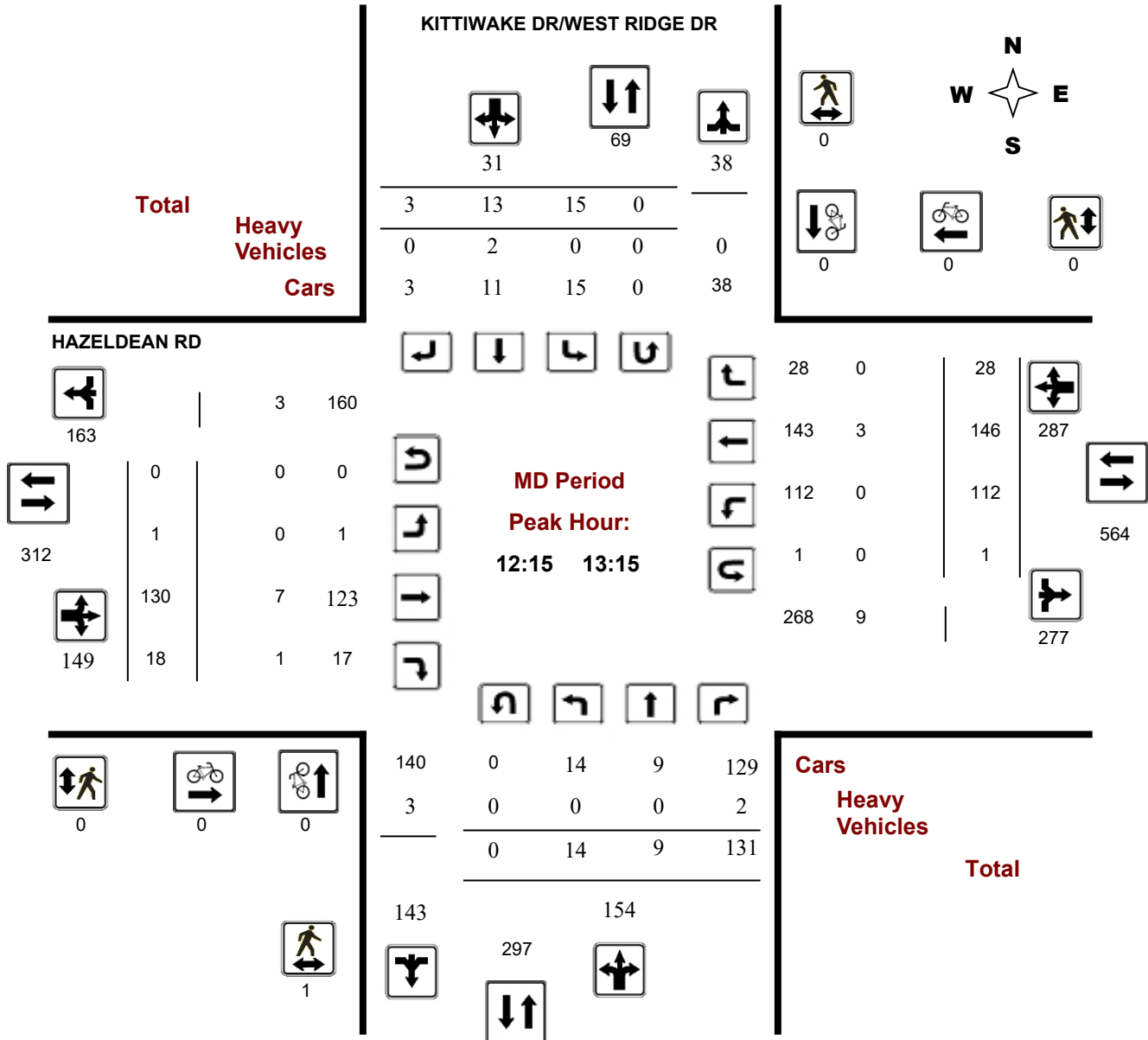
Survey Date: Tuesday, January 11, 2022

WO No: 40027

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



Turning Movement Count - Study Results

HAZELDEAN RD @ KITTIWAKE DR/WEST RIDGE DR

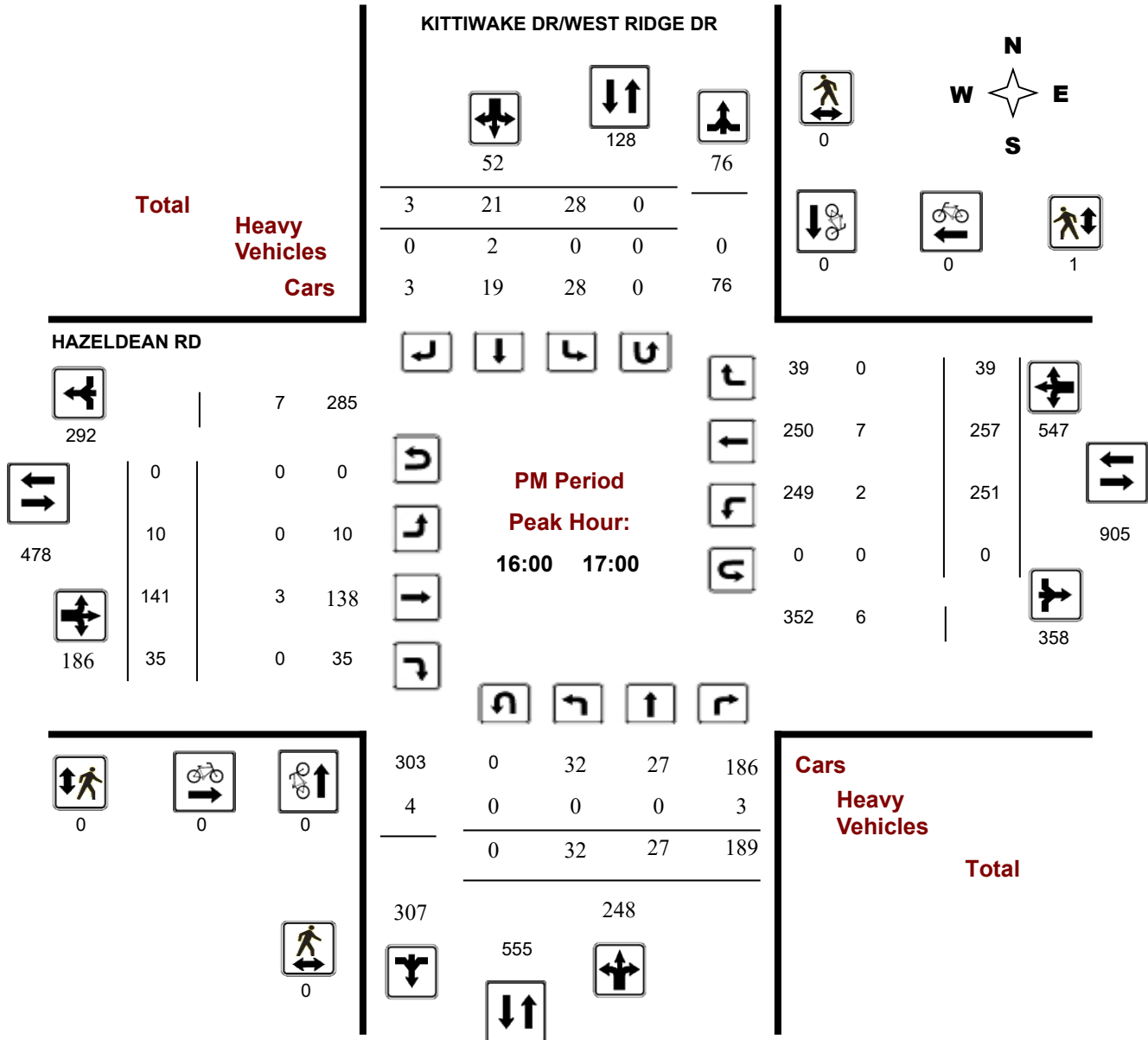
Survey Date: Tuesday, January 11, 2022

WO No: 40027

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

HAZELDEAN RD @ KITTIWAKE DR/WEST RIDGE DR

Survey Date: Tuesday, January 11, 2022

WO No: 40027

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Tuesday, January 11, 2022

Total Observed U-Turns

AADT Factor

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

1.10

KITTIWAKE DR/WEST RIDGE DR

HAZELDEAN RD

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total
	LT	ST	RT	NB TOT		LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT		LT	ST	RT	WB TOT	STR TOT	
07:00 08:00	33	12	142	187		10	5	5	20	207	2	139	10	151		32	73	3	108	259	466
08:00 09:00	22	9	170	201		21	11	3	35	236	4	123	21	148		76	91	18	185	333	569
09:00 10:00	23	5	132	160		7	4	3	14	174	0	115	13	128		85	93	21	199	327	501
11:30 12:30	12	10	117	139		18	9	4	31	170	2	136	7	145		110	139	14	263	408	578
12:30 13:30	15	10	118	143		16	9	4	29	172	1	117	18	136		110	147	31	288	424	596
15:00 16:00	18	19	136	173		20	14	3	37	210	3	140	23	166		185	235	25	445	611	821
16:00 17:00	32	27	189	248		28	21	3	52	300	10	141	35	186		251	257	39	547	733	1033
17:00 18:00	13	20	121	154		21	19	2	42	196	7	112	36	155		215	181	46	442	597	793
Sub Total	168	112	1125	1405		141	92	27	260	1665	29	1023	163	1215		1064	1216	197	2477	3692	5357
U Turns				1					0	1				0					1	1	2
Total	168	112	1125	1406		141	92	27	260	1666	29	1023	163	1215		1064	1216	197	2478	3693	5359
EQ 12Hr	234	156	1564	1954		196	128	38	361	2316	40	1422	227	1689		1479	1690	274	3444	5133	7449

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

1.39

AVG 12Hr	257	172	1720	2149		216	184	54	397	2548	44	1564	250	1858		1627	1859	301	3788	5646	8194
-----------------	-----	-----	------	------	--	-----	-----	----	-----	------	----	------	-----	------	--	------	------	-----	------	------	------

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.

1.10

AVG 24Hr	337	225	2253	2815		283	241	71	520	3338	58	2049	328	2434		2131	2435	394	4962	7396	10734
-----------------	-----	-----	------	------	--	-----	-----	----	-----	------	----	------	-----	------	--	------	------	-----	------	------	-------

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

HAZELDEAN RD @ KITTIWAKE DR/WEST RIDGE DR

Survey Date: Tuesday, January 11, 2022

WO No: 40027

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

KITTIWAKE DR/WEST RIDGE DR

HAZELDEAN RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total	
07:00	07:15	8	1	28	37	2	0	1	3	40	1	29	3	33	4	15	0	19	52	92
07:15	07:30	9	1	30	40	2	1	2	5	45	0	33	2	35	9	21	0	30	65	110
07:30	07:45	6	5	39	50	3	0	2	5	55	0	43	4	47	8	17	2	27	74	129
07:45	08:00	10	5	45	60	3	4	0	7	67	1	34	1	36	11	20	1	32	68	135
08:15	08:30	8	2	40	50	5	3	0	8	58	1	33	6	40	18	20	3	41	81	139
08:30	08:45	7	1	34	42	10	1	1	12	54	2	37	9	48	18	28	6	52	100	154
09:00	09:15	8	1	37	47	1	1	1	3	50	0	31	4	35	23	25	4	52	87	137
09:15	09:30	6	0	29	35	5	1	1	7	42	0	32	2	34	22	29	4	55	89	131
09:30	09:45	3	2	34	39	0	1	1	2	41	0	21	3	24	24	15	4	43	67	108
09:45	10:00	6	2	32	40	1	1	0	2	42	0	31	4	35	16	24	9	49	84	126
11:30	11:45	5	3	24	32	4	2	2	8	40	2	33	2	37	18	37	2	57	94	134
11:45	12:00	0	3	28	31	7	0	1	8	39	0	33	1	34	27	32	6	65	99	138
12:00	12:15	4	2	31	37	3	2	1	6	43	0	36	2	38	33	31	2	66	104	147
12:15	12:30	3	2	34	39	4	5	0	9	48	0	34	2	36	32	39	4	75	111	159
12:30	12:45	1	2	30	33	2	2	0	4	37	1	30	4	35	29	32	9	71	106	143
12:45	13:00	6	1	34	41	3	2	2	7	48	0	26	6	32	31	37	6	74	106	154
13:00	13:15	4	4	33	41	6	4	1	11	52	0	40	6	46	20	38	9	67	113	165
13:15	13:30	4	3	21	28	5	1	1	7	35	0	21	2	23	30	40	7	77	100	135
15:00	15:15	8	7	29	44	5	2	1	8	52	1	22	8	31	45	48	3	96	127	179
15:15	15:30	1	3	32	36	5	2	0	7	43	1	40	2	43	44	61	6	111	154	197
15:30	15:45	3	2	42	47	9	4	1	14	61	0	41	10	51	39	71	7	117	168	229
15:45	16:00	6	7	33	46	1	6	1	8	54	1	37	3	41	57	55	9	121	162	216
16:00	16:15	9	9	57	75	7	7	0	14	89	3	33	9	45	59	66	10	135	180	269
16:15	16:30	7	7	43	57	4	3	2	9	66	2	47	8	57	64	57	6	127	184	250
17:30	17:45	4	5	19	28	6	5	1	12	40	1	26	8	35	47	37	12	96	131	171
17:45	18:00	1	4	29	34	5	2	0	7	41	1	19	6	26	38	27	10	75	101	142
08:00	08:15	5	3	54	62	3	2	2	7	69	1	25	1	27	19	24	3	46	73	142
08:45	09:00	2	3	42	47	3	5	0	8	55	0	28	5	33	21	19	6	46	79	134
16:30	16:45	10	5	51	66	10	6	1	17	83	2	33	7	42	72	79	11	162	204	287
16:45	17:00	6	6	38	50	7	5	0	12	62	3	28	11	42	56	55	12	123	165	227
17:00	17:15	2	6	31	39	5	9	0	14	53	5	33	12	50	62	69	10	141	191	244
17:15	17:30	6	5	42	53	5	3	1	9	62	0	34	10	44	68	48	14	130	174	236
Total:		168	112	1125	1406	141	92	27	260	1666	29	1023	163	1215	1064	1216	197	2478	3693	5,359

Note: U-Turns are included in Totals, cyclist volume is not included in totals. For cyclist volumes refer to Cyclist Volume report.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

HAZELDEAN RD @ KITTIWAKE DR/WEST RIDGE DR

Survey Date: Tuesday, January 11, 2022

WO No: 40027

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

KITTIWAKE DR/WEST RIDGE DR

HAZELDEAN RD

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
08:15 08:30	0	0	0	0	0	0	0
08:30 08:45	0	0	0	0	0	0	0
09:00 09:15	0	0	0	1	0	1	1
09:15 09:30	0	0	0	0	0	0	0
09:30 09:45	0	0	0	0	0	0	0
09:45 10:00	0	0	0	0	0	0	0
11:30 11:45	0	0	0	0	0	0	0
11:45 12:00	0	0	0	0	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
17:30 17:45	0	0	0	0	1	1	1
17:45 18:00	0	0	0	0	0	0	0
08:00 08:15	0	0	0	0	0	0	0
08:45 09:00	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
Total	0	0	0	1	1	2	2



Transportation Services - Traffic Services

Turning Movement Count - Study Results

HAZELDEAN RD @ KITTIWAKE DR/WEST RIDGE DR

Survey Date: Tuesday, January 11, 2022

WO No: 40027

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

KITTIWAKE DR/WEST RIDGE DR

HAZELDEAN RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	2	0	2	0	0	0	2
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
08:15 08:30	0	0	0	0	0	0	0
08:30 08:45	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	2	2	2	0	2	4
12:15 12:30	0	0	0	0	0	0	0
12:30 12:45	1	0	1	0	0	0	1
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	2	2	2	0	2	4
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
17:30 17:45	0	0	0	0	0	0	0
17:45 18:00	0	0	0	0	0	0	0
08:00 08:15	0	0	0	0	0	0	0
08:45 09:00	0	0	0	0	0	0	0
16:30 16:45	0	0	0	0	1	1	1
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	1	0	1	0	1	1	2
Total	4	6	10	6	2	8	18



Transportation Services - Traffic Services

Turning Movement Count - Study Results

HAZELDEAN RD @ KITTIWAKE DR/WEST RIDGE DR

Survey Date: Tuesday, January 11, 2022

WO No: 40027

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

KITTIWAKE DR/WEST RIDGE DR

HAZELDEAN RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	0	1	0	1	0	0	0	0	1	0	0	1	1	0	1	0	1	2	3
07:15 07:30	1	0	0	1	0	0	0	0	1	0	1	0	1	0	2	0	2	3	4
07:30 07:45	0	1	0	1	0	0	0	0	1	0	2	0	2	0	1	0	1	3	4
07:45 08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	2
08:15 08:30	1	0	1	2	0	0	0	0	2	0	1	0	1	0	0	0	0	1	3
08:30 08:45	0	0	0	0	0	0	0	0	0	0	3	0	3	0	3	0	3	6	6
09:00 09:15	0	0	0	0	0	0	0	0	0	0	2	0	2	0	4	0	4	6	6
09:15 09:30	0	0	1	1	0	0	0	0	1	0	1	0	1	0	1	0	1	2	3
09:30 09:45	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	2	3	3
09:45 10:00	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2	2
11:30 11:45	0	0	0	0	0	0	1	1	1	0	1	0	1	1	3	0	4	5	6
11:45 12:00	0	0	0	0	1	0	0	1	1	0	3	0	3	0	0	0	0	3	4
12:00 12:15	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	1
12:15 12:30	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	1
12:30 12:45	0	0	0	0	0	1	0	1	1	0	3	0	3	0	1	0	1	4	5
12:45 13:00	0	0	1	1	0	0	0	0	1	0	2	1	3	0	1	0	1	4	5
13:00 13:15	0	0	1	1	0	1	0	1	2	0	1	0	1	0	1	0	1	2	4
13:15 13:30	0	1	0	1	0	0	0	0	1	0	0	0	0	0	2	0	2	2	3
15:00 15:15	1	0	1	2	0	1	0	1	3	0	0	0	0	0	1	0	1	1	4
15:15 15:30	0	1	1	2	0	0	0	0	2	0	2	0	2	0	0	0	0	2	4
15:30 15:45	0	0	0	0	0	1	0	1	1	0	2	0	2	0	1	0	1	3	4
15:45 16:00	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2	2
16:00 16:15	0	0	1	1	0	1	0	1	2	0	0	0	0	0	1	0	1	1	3
16:15 16:30	0	0	1	1	0	0	0	0	1	0	1	0	1	0	5	0	5	6	7
17:30 17:45	0	0	1	1	0	1	0	1	2	0	1	0	1	0	1	0	1	2	4
17:45 18:00	0	0	0	0	0	1	0	1	1	0	3	0	3	0	0	0	0	3	4
08:00 08:15	0	1	0	1	0	0	0	0	1	0	1	0	1	1	0	0	1	2	3
08:45 09:00	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	0	2	4	4
16:30 16:45	0	0	1	1	0	1	0	1	2	0	0	0	0	1	0	0	1	1	3
16:45 17:00	0	0	0	0	0	0	0	0	0	0	2	0	2	1	1	0	2	4	4
17:00 17:15	0	0	0	0	0	1	0	1	1	0	1	0	1	0	0	0	0	1	2
17:15 17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total: None	3	5	10	18	1	10	1	12	30	0	40	2	42	6	35	0	41	83	113

Transportation Services - Traffic Services

Turning Movement Count - Study Results

HAZELDEAN RD @ KITTIWAKE DR/WEST RIDGE DR

Survey Date: Tuesday, January 11, 2022

WO No: 40027

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

KITTIWAKE DR/WEST RIDGE DR

HAZELDEAN RD

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

Turning Movement Count - Study Results

CARP RD @ HAZELDEAN RD

Survey Date: Thursday, September 19, 2024

Start Time: 07:00

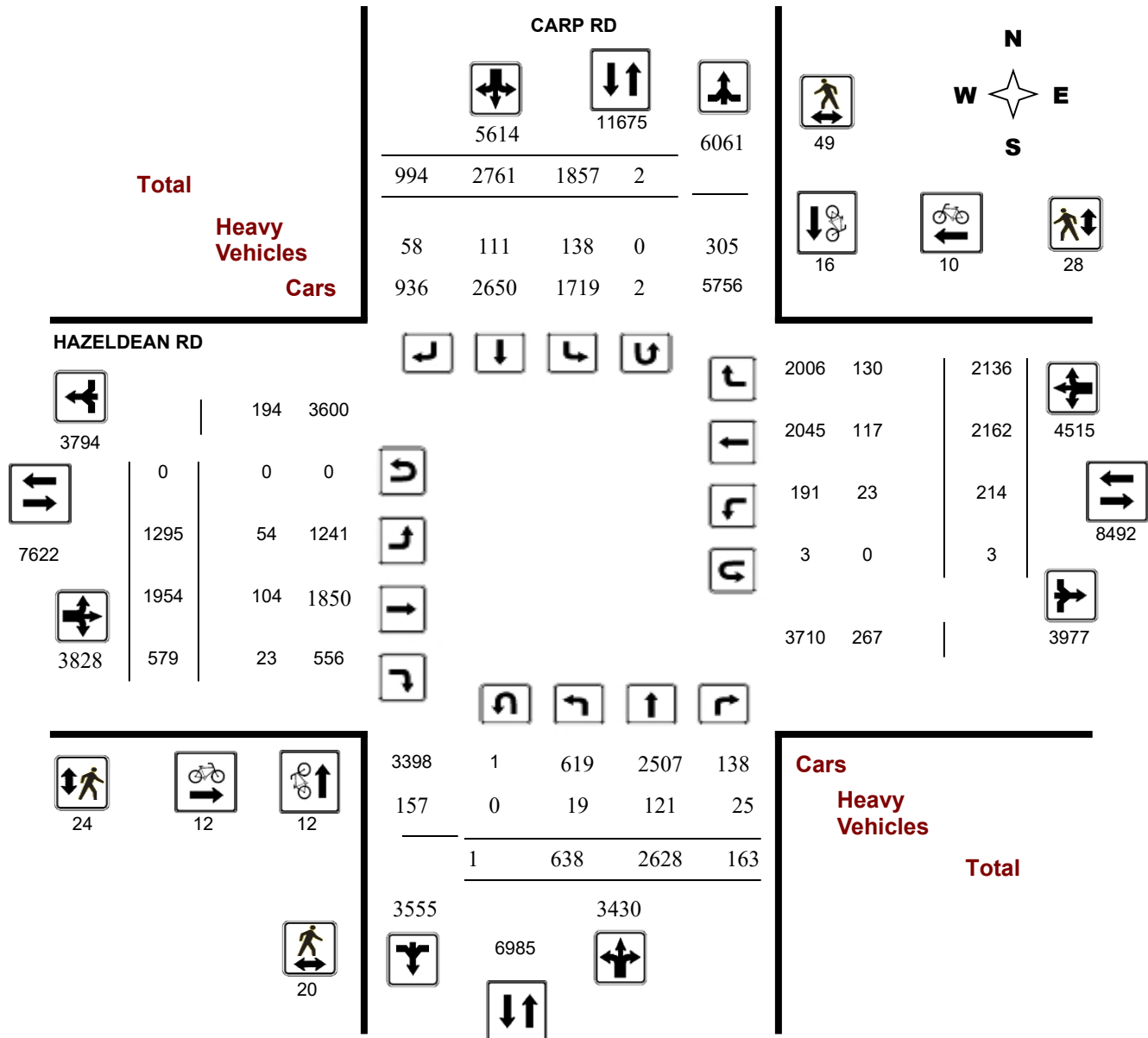
WO No:

42078

Device:

Miovision

Full Study Diagram



Turning Movement Count - Study Results

CARP RD @ HAZELDEAN RD

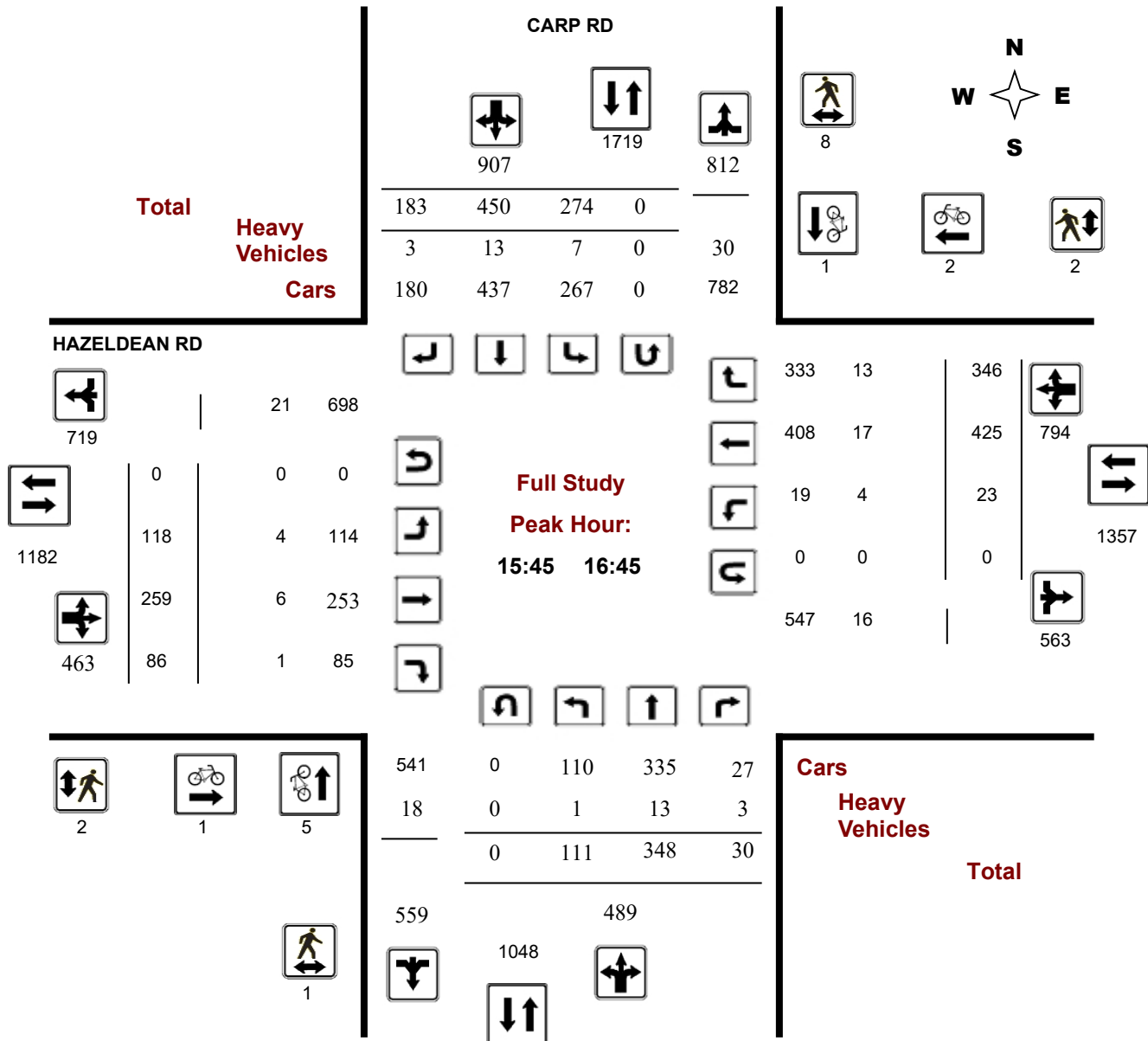
Survey Date: Thursday, September 19, 2024

WO No: 42078

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Study Results

CARP RD @ HAZELDEAN RD

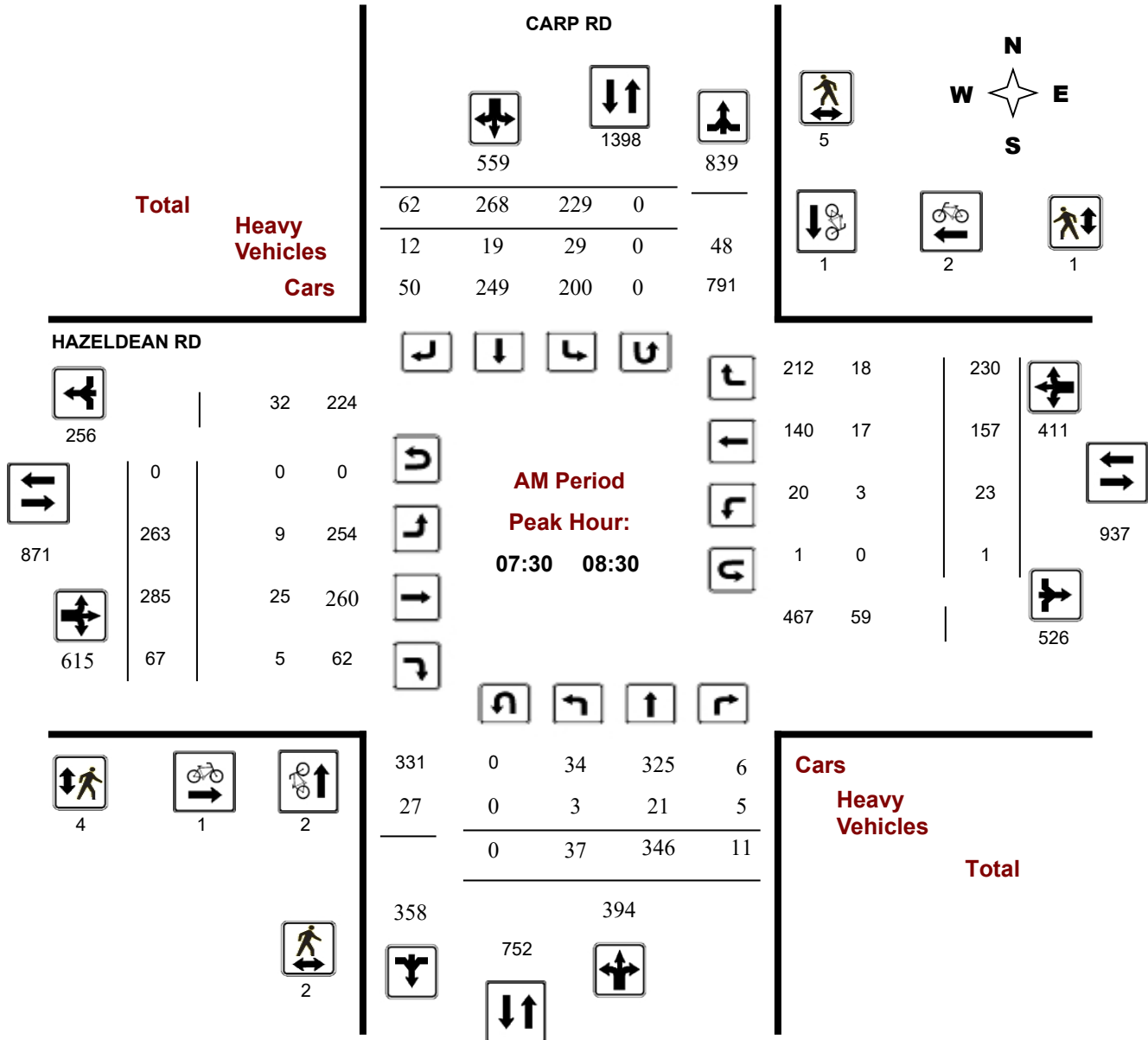
Survey Date: Thursday, September 19, 2024

WO No: 42078

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



Turning Movement Count - Study Results

CARP RD @ HAZELDEAN RD

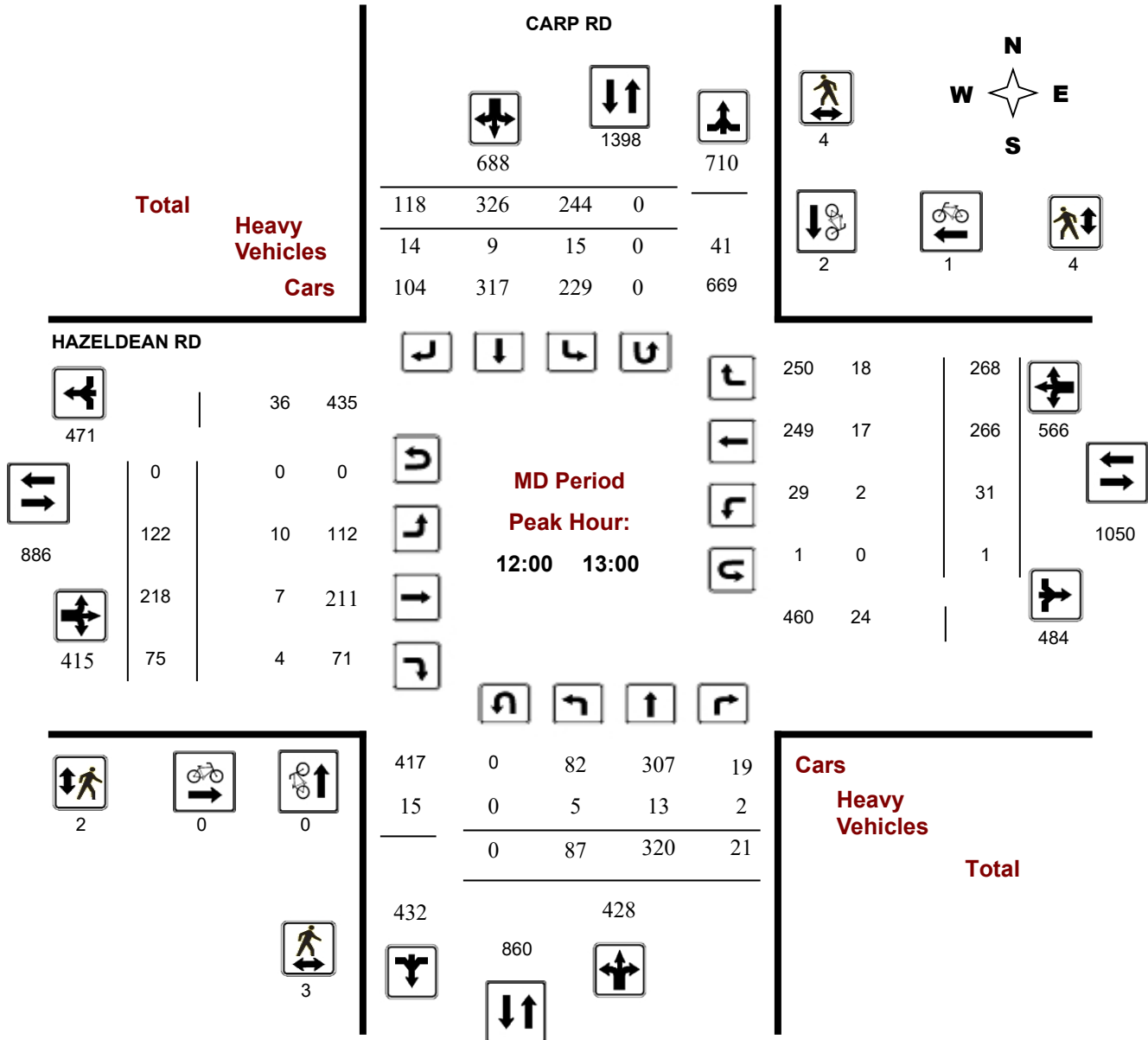
Survey Date: Thursday, September 19, 2024

WO No: 42078

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



Turning Movement Count - Study Results

CARP RD @ HAZELDEAN RD

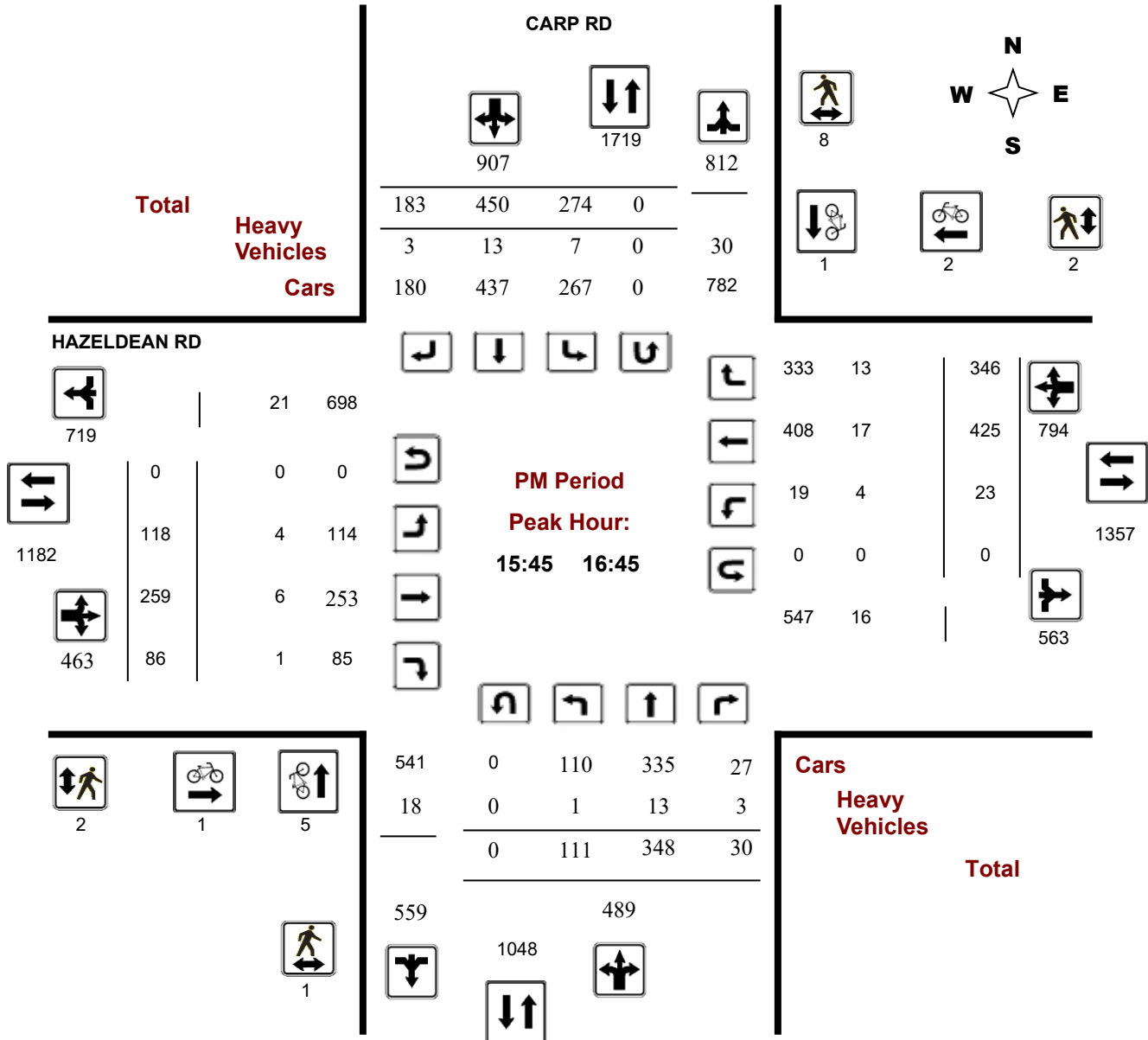
Survey Date: Thursday, September 19, 2024

WO No: 42078

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

CARP RD @ HAZELDEAN RD

Survey Date: Thursday, September 19, 2024

WO No: 42078

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, September 19, 2024

Total Observed U-Turns

Northbound: 1 Southbound: 2
Eastbound: 0 Westbound: 3

AADT Factor

1.00

CARP RD										HAZELDEAN RD										STR TOT		Grand Total
Period	Northbound				Southbound				STR TOT	Eastbound				Westbound								
	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT		LT	ST	RT	EB TOT	LT	ST	RT	WB TOT					
07:00	08:00	29	354	13	396	217	231	66	514	910	292	259	38	589	17	119	218	354	943	1853		
08:00	09:00	43	353	8	404	179	274	65	518	922	208	246	77	531	17	176	232	425	956	1878		
09:00	10:00	52	327	28	407	191	286	69	546	953	167	206	69	442	30	183	232	445	887	1840		
11:30	12:30	86	315	15	416	240	331	101	672	1088	138	230	64	432	30	261	238	529	961	2049		
12:30	13:30	87	321	22	430	232	321	115	668	1098	107	190	82	379	31	264	290	585	964	2062		
15:00	16:00	114	316	34	464	258	420	179	857	1321	124	279	83	486	28	392	322	742	1228	2549		
16:00	17:00	108	341	23	472	280	443	204	927	1399	138	257	74	469	24	408	333	765	1234	2633		
17:00	18:00	119	301	20	440	260	455	195	910	1350	121	287	92	500	37	359	271	667	1167	2517		
Sub Total		638	2628	163	3429	1857	2761	994	5612	9041	1295	1954	579	3828	214	2162	2136	4512	8340	17381		
U Turns		1				2				3	0				3				3	6		
Total		638	2628	163	3430	1857	2761	994	5614	9044	1295	1954	579	3828	214	2162	2136	4515	8343	17387		
EQ 12Hr		887	3653	227	4768	2581	3838	1382	7803	12571	1800	2716	805	5321	297	3005	2969	6276	11597	24168		
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.															1.39							
AVG 12Hr		887	3653	227	4768	2581	5028	1810	7803	12571	1800	2716	805	5321	297	3005	2969	6276	11597	24168		
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.															1.00							
AVG 24Hr		1162	4785	297	6246	3381	6587	2371	10222	16468	2358	3558	1055	6971	389	3937	3889	8222	15192	31660		
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

CARP RD @ HAZELDEAN RD

Survey Date: Thursday, September 19, 2024

WO No: 42078

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

CARP RD

HAZELDEAN RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total	
07:00	07:15	5	83	4	92	41	42	20	103	195	67	46	8	121	2	20	52	74	195	390
07:15	07:30	5	119	3	127	45	58	14	117	244	73	54	6	133	2	30	48	80	213	457
07:30	07:45	9	76	5	90	60	67	18	145	235	75	94	15	184	6	24	62	93	277	512
08:45	09:00	13	75	0	88	40	77	17	134	222	52	53	17	122	5	46	60	111	233	455
12:00	12:15	20	79	5	104	68	78	33	179	283	31	51	14	96	10	76	65	151	247	530
12:30	12:45	22	103	8	133	54	85	24	163	296	26	58	19	103	7	66	65	138	241	537
15:30	15:45	33	85	8	126	68	107	50	225	351	26	59	14	99	6	105	68	179	278	629
07:45	08:00	10	76	1	87	71	64	14	149	236	77	65	9	151	7	45	56	108	259	495
15:00	15:15	22	77	9	109	61	102	44	207	316	38	76	22	136	7	82	62	152	288	604
08:00	08:15	10	96	4	110	52	73	14	139	249	57	67	25	149	2	42	57	101	250	499
11:30	11:45	24	74	4	102	52	87	15	154	256	31	61	19	111	9	67	57	133	244	500
08:15	08:30	8	98	1	107	46	64	16	126	233	54	59	18	131	8	46	55	109	240	473
11:45	12:00	18	87	2	107	65	85	22	172	279	35	55	16	106	5	60	57	122	228	507
08:30	08:45	12	84	3	99	41	60	18	119	218	45	67	17	129	2	42	60	104	233	451
12:15	12:30	24	75	4	103	55	81	31	167	270	41	63	15	119	6	58	59	123	242	512
09:00	09:15	13	88	6	107	53	62	19	134	241	45	59	23	127	6	52	56	114	241	482
09:15	09:30	18	86	7	111	62	84	19	165	276	48	55	16	119	8	35	63	106	225	501
09:30	09:45	13	99	9	121	36	66	14	116	237	40	37	9	86	7	49	57	113	199	436
09:45	10:00	8	54	6	68	40	74	17	131	199	34	55	21	110	9	47	56	112	222	421
12:45	13:00	21	63	4	88	67	82	30	179	267	24	46	27	97	8	66	79	154	251	518
13:00	13:15	19	78	6	103	56	76	33	166	269	30	41	22	93	7	50	71	128	221	490
13:15	13:30	25	77	4	106	55	78	28	161	267	27	45	14	86	9	82	75	166	252	519
15:15	15:30	23	68	6	97	61	97	47	205	302	30	75	20	125	12	91	103	206	331	633
15:45	16:00	36	86	11	133	68	114	38	220	353	30	69	27	126	3	114	89	206	332	685
16:00	16:15	34	99	11	144	59	100	41	200	344	29	58	23	110	5	107	97	209	319	663
16:15	16:30	16	89	6	111	76	121	58	255	366	29	61	16	106	7	114	80	201	307	673
16:45	17:00	33	79	4	116	74	107	59	240	356	50	67	15	132	4	97	76	177	309	665
17:30	17:45	24	83	3	110	64	128	47	239	349	24	73	24	121	10	87	63	160	281	630
17:15	17:30	36	78	3	117	65	118	45	228	345	38	89	26	153	10	93	75	178	331	676
17:45	18:00	32	61	6	99	65	94	49	209	308	30	57	22	109	6	93	78	177	286	594
16:30	16:45	25	74	2	101	71	115	46	232	333	30	71	20	121	8	90	80	178	299	632
17:00	17:15	27	79	8	114	66	115	54	235	349	29	68	20	117	11	86	55	152	269	618
Total:		638	2628	163	3430	1857	2761	994	5614	9044	1295	1954	579	3828	214	2162	2136	4515	8343	17,387

Note: U-Turns are included in Totals, cyclist volume is not included in totals. For cyclist volumes refer to Cyclist Volume report.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

CARP RD @ HAZELDEAN RD

Survey Date: Thursday, September 19, 2024

WO No: 42078

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

		CARP RD			HAZELDEAN RD			Grand Total
Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00	07:15	0	1	1	0	0	0	1
07:15	07:30	0	1	1	0	0	0	1
07:30	07:45	2	0	2	0	0	0	2
08:45	09:00	0	1	1	0	0	0	1
12:00	12:15	0	0	0	0	0	0	0
12:30	12:45	0	1	1	0	0	0	1
15:30	15:45	0	0	0	0	0	0	0
07:45	08:00	0	1	1	1	1	2	3
15:00	15:15	2	0	2	0	0	0	2
08:00	08:15	0	0	0	0	1	1	1
11:30	11:45	1	0	1	0	1	1	2
08:15	08:30	0	0	0	0	0	0	0
11:45	12:00	0	0	0	0	0	0	0
08:30	08:45	0	1	1	1	0	1	2
12:15	12:30	0	0	0	0	1	1	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
12:45	13:00	0	1	1	0	0	0	1
13:00	13:15	0	1	1	2	0	2	3
13:15	13:30	0	0	0	0	0	0	0
15:15	15:30	0	0	0	1	0	1	1
15:45	16:00	5	0	5	0	1	1	6
16:00	16:15	0	0	0	0	0	0	0
16:15	16:30	0	1	1	1	0	1	2
16:45	17:00	1	1	2	2	1	3	5
17:30	17:45	0	0	0	2	2	4	4
17:15	17:30	1	2	3	0	0	0	3
17:45	18:00	0	2	2	1	0	1	3
16:30	16:45	0	0	0	0	1	1	1
17:00	17:15	0	2	2	1	1	2	4
Total		12	16	28	12	10	22	50



Transportation Services - Traffic Services

Turning Movement Count - Study Results

CARP RD @ HAZELDEAN RD

Survey Date: Thursday, September 19, 2024

WO No: 42078

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

CARP RD

HAZELDEAN RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	1	1	0	0	0	1
07:15 07:30	0	1	1	0	1	1	2
07:30 07:45	0	2	2	0	0	0	2
08:45 09:00	1	1	2	1	0	1	3
12:00 12:15	0	3	3	0	2	2	5
12:30 12:45	0	1	1	0	1	1	2
15:30 15:45	0	0	0	0	3	3	3
07:45 08:00	1	2	3	1	0	1	4
15:00 15:15	1	5	6	0	0	0	6
08:00 08:15	1	0	1	2	0	2	3
11:30 11:45	1	0	1	1	0	1	2
08:15 08:30	0	1	1	1	1	2	3
11:45 12:00	1	0	1	3	3	6	7
08:30 08:45	0	0	0	0	0	0	0
12:15 12:30	1	0	1	1	1	2	3
09:00 09:15	1	2	3	0	1	1	4
09:15 09:30	0	0	0	0	0	0	0
09:30 09:45	3	3	6	5	1	6	12
09:45 10:00	0	0	0	0	0	0	0
12:45 13:00	2	0	2	1	0	1	3
13:00 13:15	0	1	1	0	0	0	1
13:15 13:30	0	1	1	1	1	2	3
15:15 15:30	1	1	2	0	1	1	3
15:45 16:00	0	3	3	0	1	1	4
16:00 16:15	1	0	1	1	0	1	2
16:15 16:30	0	2	2	0	1	1	3
16:45 17:00	1	2	3	1	4	5	8
17:30 17:45	1	1	2	0	1	1	3
17:15 17:30	0	0	0	2	2	4	4
17:45 18:00	1	1	2	0	0	0	2
16:30 16:45	0	3	3	1	0	1	4
17:00 17:15	2	12	14	2	3	5	19
Total	20	49	69	24	28	52	121



Transportation Services - Traffic Services

Turning Movement Count - Study Results

CARP RD @ HAZELDEAN RD

Survey Date: Thursday, September 19, 2024

WO No: 42078

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

CARP RD

HAZELDEAN RD

Northbound

Southbound

Eastbound

Westbound

Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	3	1	4	11	4	3	18	22	2	5	1	8	1	3	3	7	15	37
07:15	07:30	1	4	2	7	11	9	0	20	27	1	4	0	5	0	10	1	11	16	43
07:30	07:45	0	5	3	8	7	5	4	16	24	1	12	1	14	1	2	3	6	20	44
08:45	09:00	0	5	0	5	5	1	3	9	14	1	7	2	10	2	3	4	9	19	33
12:00	12:15	1	5	1	7	7	4	5	16	23	1	0	0	1	1	7	5	13	14	37
12:30	12:45	2	6	1	9	2	1	1	4	13	5	2	0	7	1	2	6	9	16	29
15:30	15:45	0	4	1	5	2	4	3	9	14	0	5	1	6	0	4	5	9	15	29
07:45	08:00	1	7	1	9	9	2	3	14	23	2	2	2	6	0	7	4	11	17	40
15:00	15:15	0	1	0	1	8	1	4	13	14	2	4	1	7	1	3	3	7	14	28
08:00	08:15	2	5	1	8	6	8	2	16	24	3	5	2	10	1	6	5	12	22	46
11:30	11:45	0	5	1	6	5	8	1	14	20	6	1	0	7	0	3	5	8	15	35
08:15	08:30	0	4	0	4	7	4	3	14	18	3	6	0	9	1	2	6	9	18	36
11:45	12:00	2	4	0	6	6	3	2	11	17	0	2	0	2	1	3	5	9	11	28
08:30	08:45	0	5	2	7	4	5	0	9	16	2	5	2	9	0	4	7	11	20	36
12:15	12:30	1	1	0	2	2	1	3	6	8	4	2	0	6	0	3	4	7	13	21
09:00	09:15	1	4	1	6	4	2	1	7	13	2	2	2	6	1	5	4	10	16	29
09:15	09:30	2	9	1	12	1	5	2	8	20	2	4	1	7	0	4	8	12	19	39
09:30	09:45	1	4	2	7	3	2	3	8	15	1	4	2	7	1	6	4	11	18	33
09:45	10:00	1	5	0	6	3	2	1	6	12	2	5	0	7	0	6	4	10	17	29
12:45	13:00	1	1	0	2	4	3	5	12	14	0	3	4	7	0	5	3	8	15	29
13:00	13:15	0	5	1	6	9	0	1	10	16	2	3	0	5	2	4	2	8	13	29
13:15	13:30	0	4	0	4	5	9	2	16	20	1	4	0	5	0	1	9	10	15	35
15:15	15:30	0	0	0	0	3	6	1	10	10	3	5	0	8	0	4	6	10	18	28
15:45	16:00	1	2	1	4	4	4	1	9	13	0	3	1	4	0	5	3	8	12	25
16:00	16:15	0	5	2	7	0	2	0	2	9	2	0	0	2	0	6	1	7	9	18
16:15	16:30	0	1	0	1	1	5	1	7	8	2	1	0	3	3	3	5	11	14	22
16:45	17:00	1	2	1	4	2	3	0	5	9	1	2	0	3	1	1	4	6	9	18
17:30	17:45	0	2	0	2	0	2	1	3	5	2	1	0	3	2	1	1	4	7	12
17:15	17:30	0	3	0	3	2	1	0	3	6	1	1	0	2	0	0	2	2	4	10
17:45	18:00	1	2	1	4	1	0	0	1	5	0	0	0	0	1	0	1	2	2	7
16:30	16:45	0	5	0	5	2	2	1	5	10	0	2	0	2	1	3	4	8	10	20
17:00	17:15	0	3	1	4	2	3	1	6	10	0	2	1	3	1	1	3	5	8	18
Total:	None	19	121	25	165	138	111	58	307	472	54	104	23	181	23	117	130	270	451	923

Transportation Services - Traffic Services

Turning Movement Count - Study Results

CARP RD @ HAZELDEAN RD

Survey Date: Thursday, September 19, 2024

WO No: 42078

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

CARP RD

HAZELDEAN RD

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	1	1
08:45	09:00	0	0	0	0	0
12:00	12:15	0	0	0	0	0
12:30	12:45	0	0	0	0	0
15:30	15:45	0	0	0	0	0
07:45	08:00	0	0	0	0	0
15:00	15:15	1	0	0	1	2
08:00	08:15	0	0	0	0	0
11:30	11:45	0	0	0	0	0
08:15	08:30	0	0	0	0	0
11:45	12:00	0	0	0	0	0
08:30	08:45	0	0	0	0	0
12:15	12:30	0	0	0	0	0
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
09:45	10:00	0	0	0	0	0
12:45	13:00	0	0	0	1	1
13:00	13:15	0	1	0	0	1
13:15	13:30	0	0	0	0	0
15:15	15:30	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
16:45	17:00	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:15	17:30	0	0	0	0	0
17:45	18:00	0	1	0	0	1
16:30	16:45	0	0	0	0	0
17:00	17:15	0	0	0	0	0
Total		1	2	0	3	6

Turning Movement Count - Study Results

STITTSVILLE MAIN ST @ HAZELDEAN RD

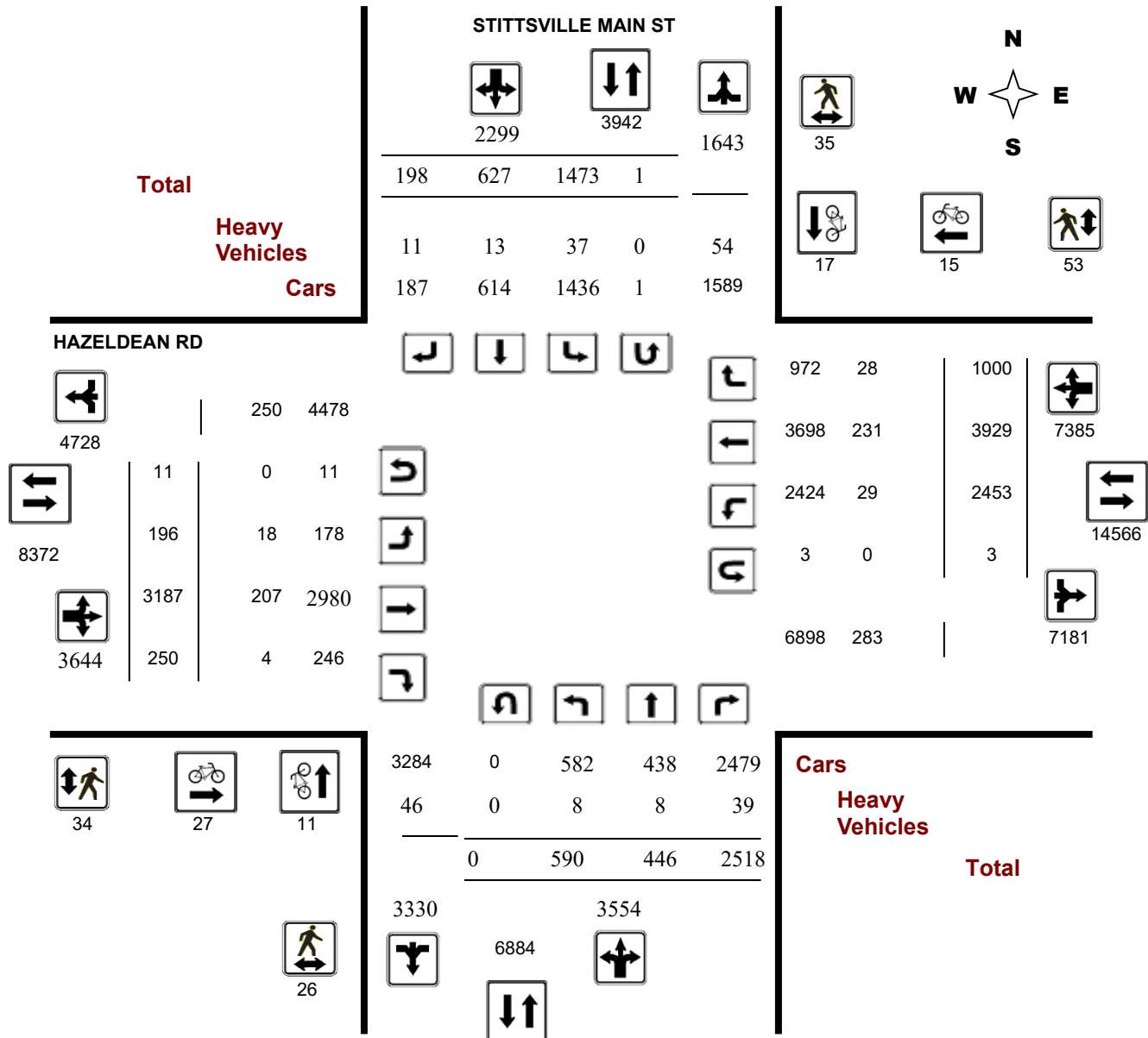
Survey Date: Tuesday, October 22, 2024

Start Time: 07:00

WO No: 42176

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

STITTSVILLE MAIN ST @ HAZELDEAN RD

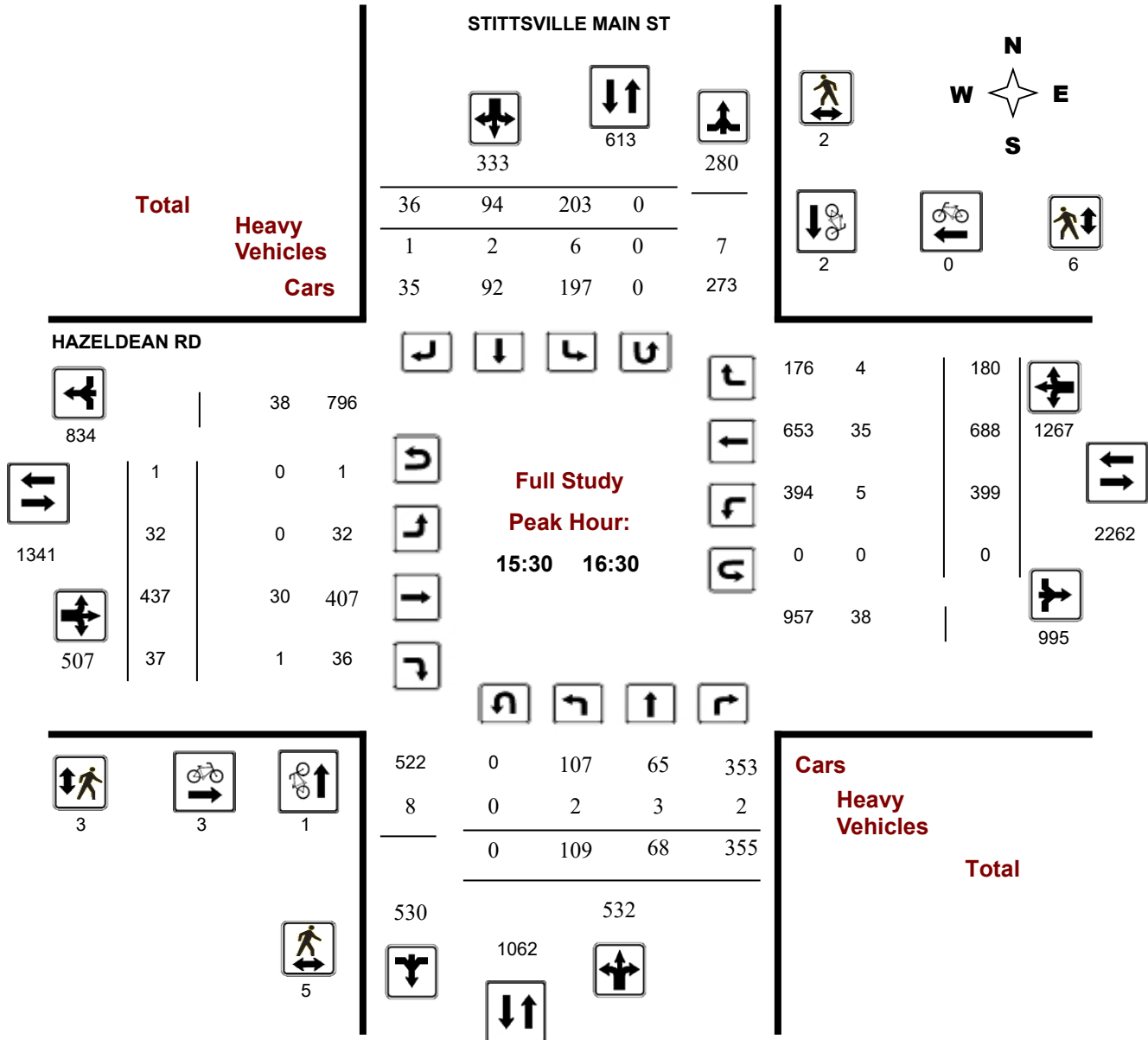
Survey Date: Tuesday, October 22, 2024

WO No: 42176

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Study Results

STITTSVILLE MAIN ST @ HAZELDEAN RD

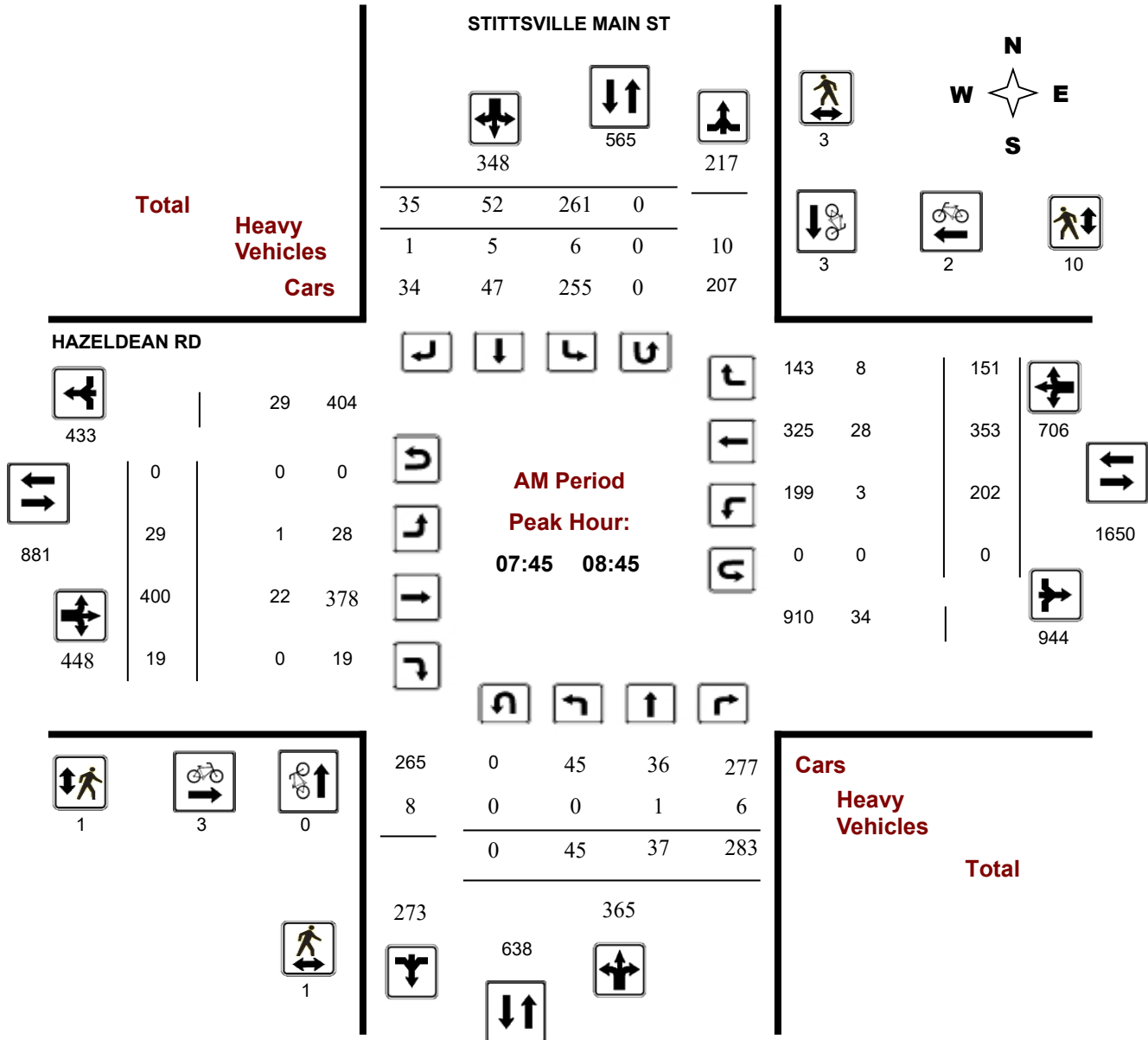
Survey Date: Tuesday, October 22, 2024

WO No: 42176

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



Turning Movement Count - Study Results

STITTSVILLE MAIN ST @ HAZELDEAN RD

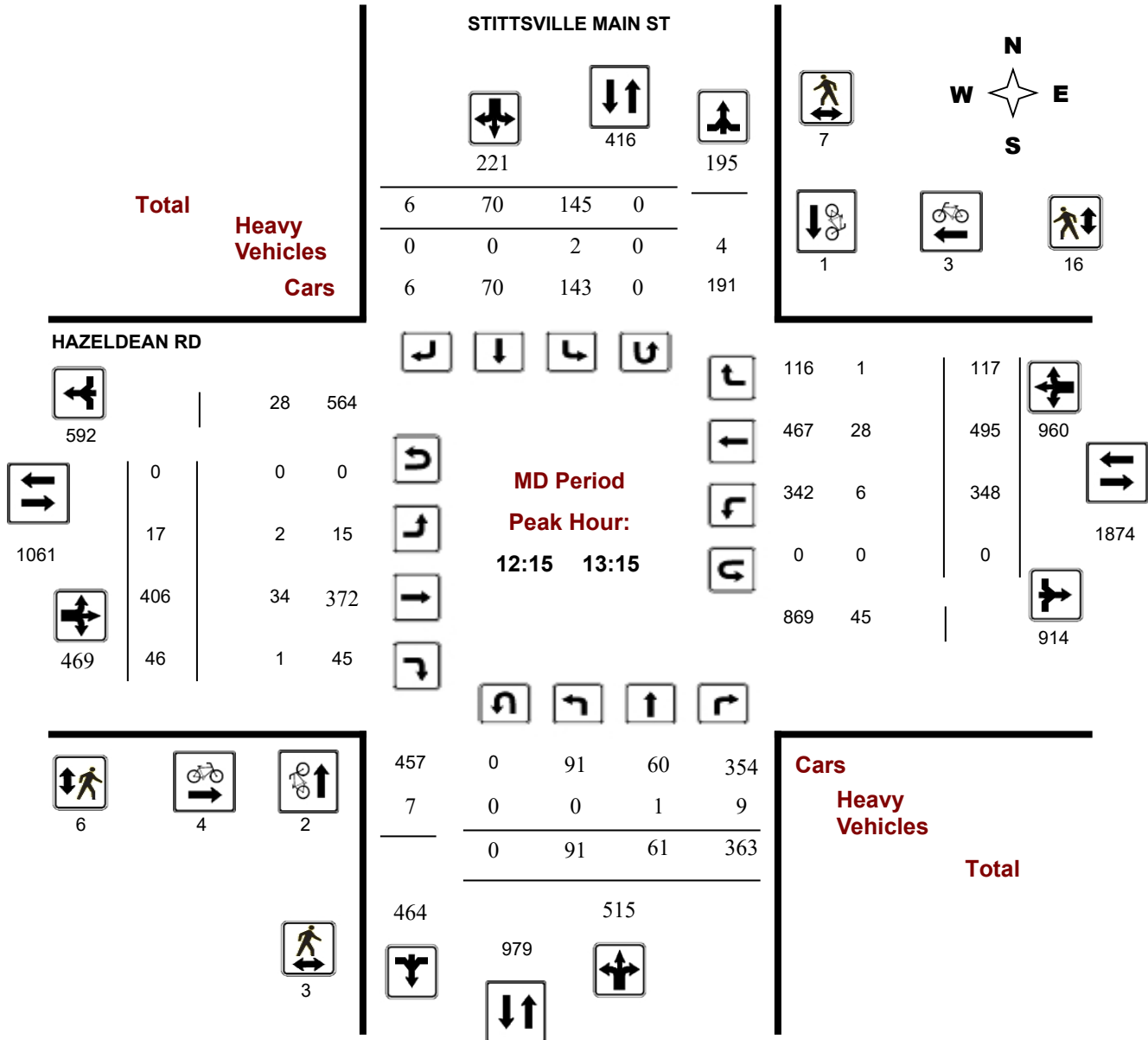
Survey Date: Tuesday, October 22, 2024

WO No: 42176

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



Turning Movement Count - Study Results

STITTSVILLE MAIN ST @ HAZELDEAN RD

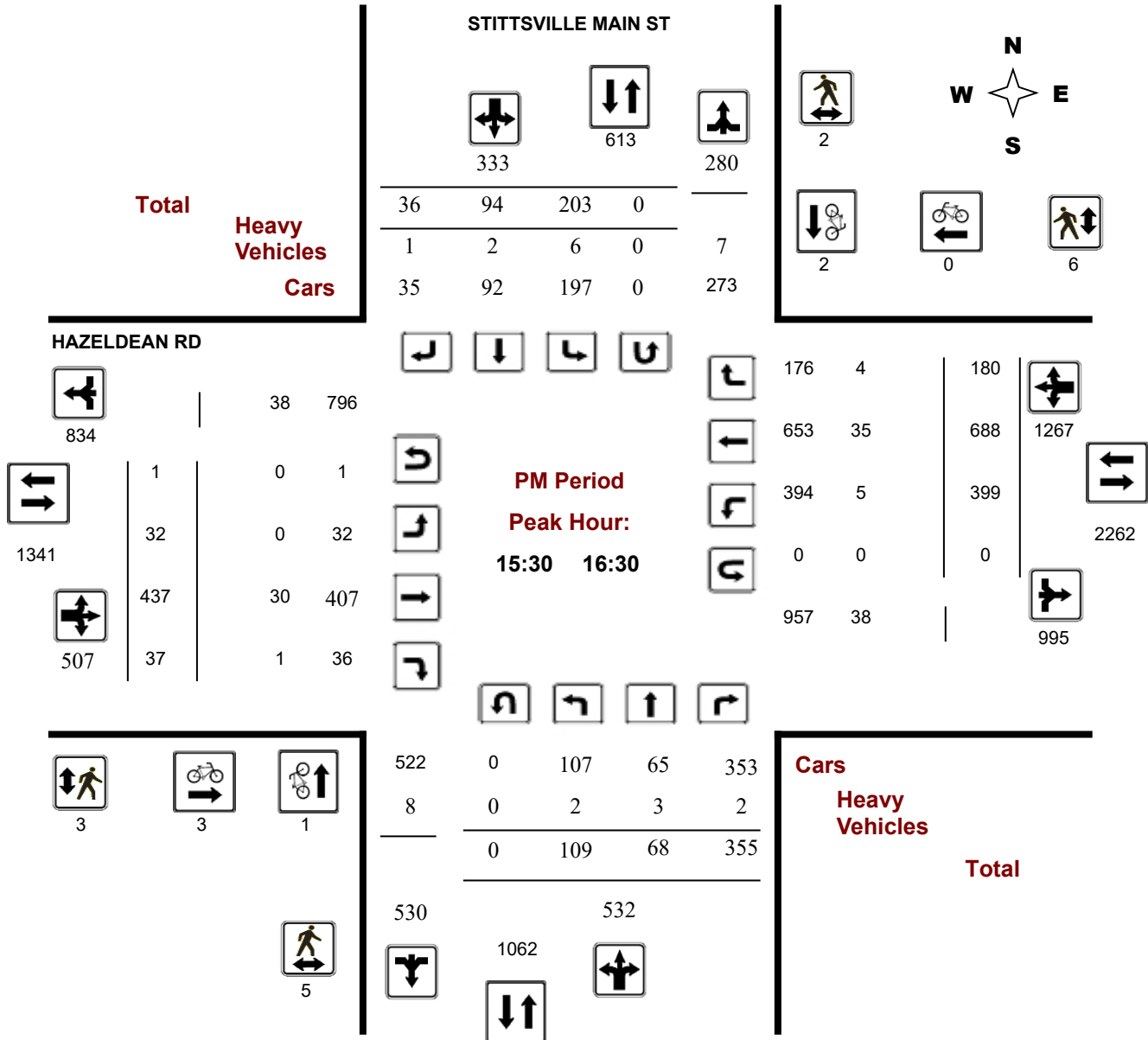
Survey Date: Tuesday, October 22, 2024

WO No: 42176

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

STITTSVILLE MAIN ST @ HAZELDEAN RD

Survey Date: Tuesday, October 22, 2024

WO No: 42176

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Tuesday, October 22, 2024

Total Observed U-Turns

AADT Factor

Northbound: 0 Southbound: 1
Eastbound: 11 Westbound: 3
.90

STITTSVILLE MAIN ST

HAZELDEAN RD

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total
	LT	ST	RT	NB TOT		LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT		LT	ST	RT	WB TOT	STR TOT	
07:00 08:00	41	25	195	261		220	48	19	287	548	18	377	14	409		130	256	57	443	852	1400
08:00 09:00	50	43	275	368		225	63	34	322	690	24	353	24	401		217	363	144	724	1125	1815
09:00 10:00	61	44	305	410		146	69	19	234	644	22	314	22	358		256	383	54	693	1051	1695
11:30 12:30	83	47	341	471		143	64	15	222	693	22	414	36	472		341	537	108	986	1458	2151
12:30 13:30	91	63	378	532		152	84	9	245	777	16	381	41	438		349	481	110	940	1378	2155
15:00 16:00	83	59	353	495		210	103	42	355	850	30	433	39	502		413	657	175	1245	1747	2597
16:00 17:00	94	80	346	520		200	105	23	328	848	35	445	40	520		396	670	183	1249	1769	2617
17:00 18:00	87	85	325	497		177	91	37	305	802	29	470	34	533		351	582	169	1102	1635	2437
Sub Total	590	446	2518	3554		1473	627	198	2298	5852	196	3187	250	3633		2453	3929	1000	7382	11015	16867
U Turns				0					1	1				11					3	14	15
Total	590	446	2518	3554		1473	627	198	2299	5853	196	3187	250	3644		2453	3929	1000	7385	11029	16882
EQ 12Hr	820	620	3500	4940		2047	872	275	3196	8136	272	4430	348	5065		3410	5461	1390	10265	15330	23466

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

1.39

AVG 12Hr	738	558	3150	4446		1842	1028	324	2876	7322	245	3987	313	4558		3069	4915	1251	9238	13797	21119
-----------------	-----	-----	------	------	--	------	------	-----	------	------	-----	------	-----	------	--	------	------	------	------	-------	-------

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.

.90

AVG 24Hr	967	731	4126	5824		2413	1347	424	3768	9592	321	5223	410	5971		4020	6439	1639	12102	18074	27666
-----------------	-----	-----	------	------	--	------	------	-----	------	------	-----	------	-----	------	--	------	------	------	-------	-------	-------

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

STITTSVILLE MAIN ST @ HAZELDEAN RD

Survey Date: Tuesday, October 22, 2024

WO No: 42176

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

STITTSVILLE MAIN ST

HAZELDEAN RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total	
07:00	07:15	8	7	37	52	31	11	6	48	100	5	80	4	92	27	45	7	79	171	271
07:15	07:30	11	5	38	54	41	9	2	52	106	3	93	2	98	22	68	15	105	203	309
07:30	07:45	10	5	42	57	66	17	2	85	142	4	82	4	90	32	67	12	111	201	343
17:45	18:00	17	13	98	128	59	22	9	90	218	8	98	7	113	72	132	46	251	364	582
07:45	08:00	12	8	78	98	82	11	9	102	200	6	122	4	132	49	76	23	148	280	480
08:00	08:15	7	10	68	85	50	12	3	65	150	11	89	6	106	40	91	39	170	276	426
08:15	08:30	12	14	58	84	47	6	3	56	140	10	90	5	105	61	89	45	195	300	440
08:30	08:45	14	5	79	98	82	23	20	125	223	2	99	4	105	52	97	44	193	298	521
08:45	09:00	17	14	70	101	46	22	8	76	177	1	75	9	85	64	86	16	166	251	428
09:00	09:15	16	7	81	104	42	17	5	64	168	7	81	6	94	52	81	13	146	240	408
09:30	09:45	25	13	73	111	40	17	4	61	172	1	80	4	85	58	103	9	170	255	427
09:45	10:00	5	13	83	101	33	22	3	58	159	8	87	6	101	77	118	16	211	312	471
11:30	11:45	18	12	82	112	35	16	4	55	167	3	101	6	110	91	129	24	244	354	521
12:00	12:15	18	12	81	111	42	13	6	61	172	4	101	8	113	76	122	22	220	333	505
12:15	12:30	20	13	95	128	32	10	2	44	172	9	110	14	133	87	142	38	267	400	572
12:45	13:00	22	19	85	126	40	20	3	63	189	3	100	10	113	91	108	28	227	340	529
13:00	13:15	27	9	91	127	37	17	0	54	181	2	95	7	104	94	127	28	249	353	534
13:15	13:30	20	15	110	145	39	24	5	68	213	8	85	9	102	88	128	31	247	349	562
15:00	15:15	14	19	89	122	53	23	8	85	207	12	115	10	137	106	157	44	307	444	651
15:15	15:30	16	12	82	110	59	34	10	103	213	4	111	11	126	101	167	37	305	431	644
15:30	15:45	28	17	86	131	54	18	14	86	217	4	92	9	105	100	158	41	299	404	621
16:00	16:15	29	16	95	140	53	22	7	82	222	11	104	9	124	88	188	42	318	442	664
16:15	16:30	27	24	78	129	52	26	5	83	212	7	126	10	143	105	167	44	316	459	671
16:30	16:45	23	16	89	128	49	24	5	78	206	4	101	6	111	87	157	52	296	407	613
16:45	17:00	15	24	84	123	46	33	6	85	208	13	114	15	144	116	158	45	319	463	671
17:00	17:15	25	25	69	119	42	20	9	71	190	6	132	10	149	94	157	42	293	442	632
17:15	17:30	22	25	71	118	44	19	9	72	190	10	129	7	146	99	159	42	300	446	636
17:30	17:45	23	22	87	132	32	30	10	72	204	5	111	10	127	86	134	39	259	386	590
15:45	16:00	25	11	96	132	44	28	10	82	214	10	115	9	135	106	175	53	334	469	683
09:15	09:30	15	11	68	94	31	13	7	51	145	6	66	6	80	69	81	16	167	247	392
12:30	12:45	22	20	92	134	36	23	1	60	194	3	101	15	119	76	118	23	217	336	530
11:45	12:00	27	10	83	120	34	25	3	62	182	6	102	8	117	87	144	24	256	373	555
Total:		590	446	2518	3554	1473	627	198	2299	5853	196	3187	250	3644	2453	3929	1000	7385	11029	16,882

Note: U-Turns are included in Totals, cyclist volume is not included in totals. For cyclist volumes refer to Cyclist Volume report.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

STITTSVILLE MAIN ST @ HAZELDEAN RD

Survey Date: Tuesday, October 22, 2024

WO No: 42176

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

STITTSVILLE MAIN ST

HAZELDEAN RD

Time Period		STITTSVILLE MAIN ST			HAZELDEAN RD			Grand Total
		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00	07:15	0	0	0	1	0	1	1
07:15	07:30	0	2	2	0	0	0	2
07:30	07:45	0	0	0	0	0	0	0
17:45	18:00	0	1	1	1	1	2	3
07:45	08:00	0	0	0	0	1	1	1
08:00	08:15	0	0	0	2	0	2	2
08:15	08:30	0	2	2	0	1	1	3
08:30	08:45	0	1	1	1	0	1	2
08:45	09:00	1	0	1	1	1	2	3
09:00	09:15	0	1	1	1	0	1	2
09:30	09:45	0	0	0	0	1	1	1
09:45	10:00	0	0	0	0	0	0	0
11:30	11:45	1	0	1	0	0	0	1
12:00	12:15	0	0	0	0	1	1	1
12:15	12:30	0	0	0	0	1	1	1
12:45	13:00	0	0	0	1	1	2	2
13:00	13:15	1	1	2	0	1	1	3
13:15	13:30	1	0	1	0	0	0	1
15:00	15:15	1	0	1	0	1	1	2
15:15	15:30	0	0	0	1	1	2	2
15:30	15:45	0	0	0	1	0	1	1
16:00	16:15	1	0	1	2	0	2	3
16:15	16:30	0	0	0	0	0	0	0
16:30	16:45	0	1	1	3	1	4	5
16:45	17:00	2	1	3	2	0	2	5
17:00	17:15	1	2	3	1	1	2	5
17:15	17:30	0	1	1	2	1	3	4
17:30	17:45	1	1	2	1	0	1	3
15:45	16:00	0	2	2	0	0	0	2
09:15	09:30	0	1	1	3	0	3	4
12:30	12:45	1	0	1	3	0	3	4
11:45	12:00	0	0	0	0	1	1	1
Total		11	17	28	27	15	42	70



Transportation Services - Traffic Services

Turning Movement Count - Study Results STITTSVILLE MAIN ST @ HAZELDEAN RD

Survey Date: Tuesday, October 22, 2024

WO No: 42176

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

STITTSVILLE MAIN ST

HAZELDEAN RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	1	1	2	1	1	2	4
07:15 07:30	0	1	1	0	2	2	3
07:30 07:45	0	2	2	1	1	2	4
17:45 18:00	2	3	5	1	5	6	11
07:45 08:00	0	1	1	0	4	4	5
08:00 08:15	1	1	2	1	2	3	5
08:15 08:30	0	1	1	0	3	3	4
08:30 08:45	0	0	0	0	1	1	1
08:45 09:00	0	2	2	2	1	3	5
09:00 09:15	3	2	5	0	1	1	6
09:30 09:45	0	2	2	0	2	2	4
09:45 10:00	0	1	1	1	0	1	2
11:30 11:45	0	0	0	1	0	1	1
12:00 12:15	0	2	2	1	2	3	5
12:15 12:30	2	0	2	0	8	8	10
12:45 13:00	0	0	0	0	1	1	1
13:00 13:15	0	5	5	0	5	5	10
13:15 13:30	5	0	5	3	0	3	8
15:00 15:15	0	1	1	0	0	0	1
15:15 15:30	1	0	1	4	0	4	5
15:30 15:45	0	0	0	0	1	1	1
16:00 16:15	4	0	4	1	0	1	5
16:15 16:30	1	2	3	2	2	4	7
16:30 16:45	2	2	4	1	2	3	7
16:45 17:00	0	1	1	1	0	1	2
17:00 17:15	0	0	0	0	2	2	2
17:15 17:30	2	0	2	5	0	5	7
17:30 17:45	1	1	2	0	2	2	4
15:45 16:00	0	0	0	0	3	3	3
09:15 09:30	0	1	1	1	0	1	2
12:30 12:45	1	2	3	6	2	8	11
11:45 12:00	0	1	1	1	0	1	2
Total	26	35	61	34	53	87	148



Transportation Services - Traffic Services

Turning Movement Count - Study Results

STITTSVILLE MAIN ST @ HAZELDEAN RD

Survey Date: Tuesday, October 22, 2024

WO No: 42176

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

STITTSVILLE MAIN ST

HAZELDEAN RD

Northbound

Southbound

Eastbound

Westbound

Time Period		Northbound			N TOT	Southbound			S TOT	STR TOT	Eastbound			E TOT	Westbound			W TOT	STR TOT	Grand Total
		LT	ST	RT		LT	ST	RT			LT	ST	RT		LT	ST	RT			
07:00	07:15	0	0	1	1	0	1	0	1	2	2	11	0	13	2	2	0	4	17	19
07:15	07:30	0	0	0	0	0	2	0	2	2	2	8	0	10	3	7	2	12	22	24
07:30	07:45	0	0	0	0	6	0	0	6	6	0	5	0	5	1	5	1	7	12	18
17:45	18:00	0	0	1	1	0	0	0	0	1	1	0	0	1	1	3	0	4	5	6
07:45	08:00	0	0	2	2	1	1	0	2	4	0	1	0	1	0	3	1	4	5	9
08:00	08:15	0	1	0	1	0	1	0	1	2	0	7	0	7	1	8	0	9	16	18
08:15	08:30	0	0	2	2	2	0	1	3	5	0	9	0	9	1	8	1	10	19	24
08:30	08:45	0	0	2	2	3	3	0	6	8	1	5	0	6	1	9	6	16	22	30
08:45	09:00	1	0	1	2	2	0	1	3	5	0	6	1	7	2	10	0	12	19	24
09:00	09:15	1	0	1	2	0	1	2	3	5	0	11	0	11	0	12	0	12	23	28
09:30	09:45	0	0	3	3	0	0	0	0	3	0	8	0	8	1	10	0	11	19	22
09:45	10:00	0	0	0	0	0	0	0	0	0	1	5	1	7	0	13	0	13	20	20
11:30	11:45	1	0	2	3	1	1	2	4	7	0	11	0	11	0	7	1	8	19	26
12:00	12:15	0	0	4	4	1	0	0	1	5	1	7	0	8	0	5	3	8	16	21
12:15	12:30	0	0	2	2	1	0	0	1	3	1	8	0	9	3	8	1	12	21	24
12:45	13:00	0	1	2	3	1	0	0	1	4	0	9	0	9	1	4	0	5	14	18
13:00	13:15	0	0	4	4	0	0	0	0	4	0	7	0	7	2	8	0	10	17	21
13:15	13:30	0	0	0	0	3	0	0	3	3	1	6	0	7	1	4	1	6	13	16
15:00	15:15	0	1	3	4	2	1	0	3	7	5	7	0	12	1	11	4	16	28	35
15:15	15:30	1	0	0	1	5	0	1	6	7	1	9	0	10	1	8	3	12	22	29
15:30	15:45	1	1	0	2	2	1	0	3	5	0	15	0	15	1	5	1	7	22	27
16:00	16:15	0	0	1	1	2	0	0	2	3	0	5	0	5	1	10	0	11	16	19
16:15	16:30	0	2	1	3	1	0	1	2	5	0	7	0	7	0	9	1	10	17	22
16:30	16:45	1	0	1	2	0	0	1	1	3	0	6	0	6	0	4	0	4	10	13
16:45	17:00	0	1	0	1	0	0	1	1	2	0	4	0	4	1	9	0	10	14	16
17:00	17:15	0	1	1	2	0	0	1	1	3	0	2	0	2	0	4	0	4	6	9
17:15	17:30	0	0	1	1	0	0	0	0	1	0	1	0	1	0	5	0	5	6	7
17:30	17:45	0	0	2	2	1	0	0	1	3	0	1	0	1	0	3	0	3	4	7
15:45	16:00	1	0	0	1	1	1	0	2	3	0	3	1	4	3	11	2	16	20	23
09:15	09:30	1	0	1	2	1	0	0	1	3	0	6	0	6	1	8	0	9	15	18
12:30	12:45	0	0	1	1	0	0	0	0	1	1	10	1	12	0	8	0	8	20	21
11:45	12:00	0	0	0	0	1	0	0	1	1	1	7	0	8	0	10	0	10	18	19
Total:	None	8	8	39	55	37	13	11	61	116	18	207	4	229	29	231	28	288	517	633

Transportation Services - Traffic Services

Turning Movement Count - Study Results

STITTSVILLE MAIN ST @ HAZELDEAN RD

Survey Date: Tuesday, October 22, 2024

WO No: 42176

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

STITTSVILLE MAIN ST

HAZELDEAN RD

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

Turning Movement Count - Study Results

CARP RD @ STITTSTVILLE MAIN ST

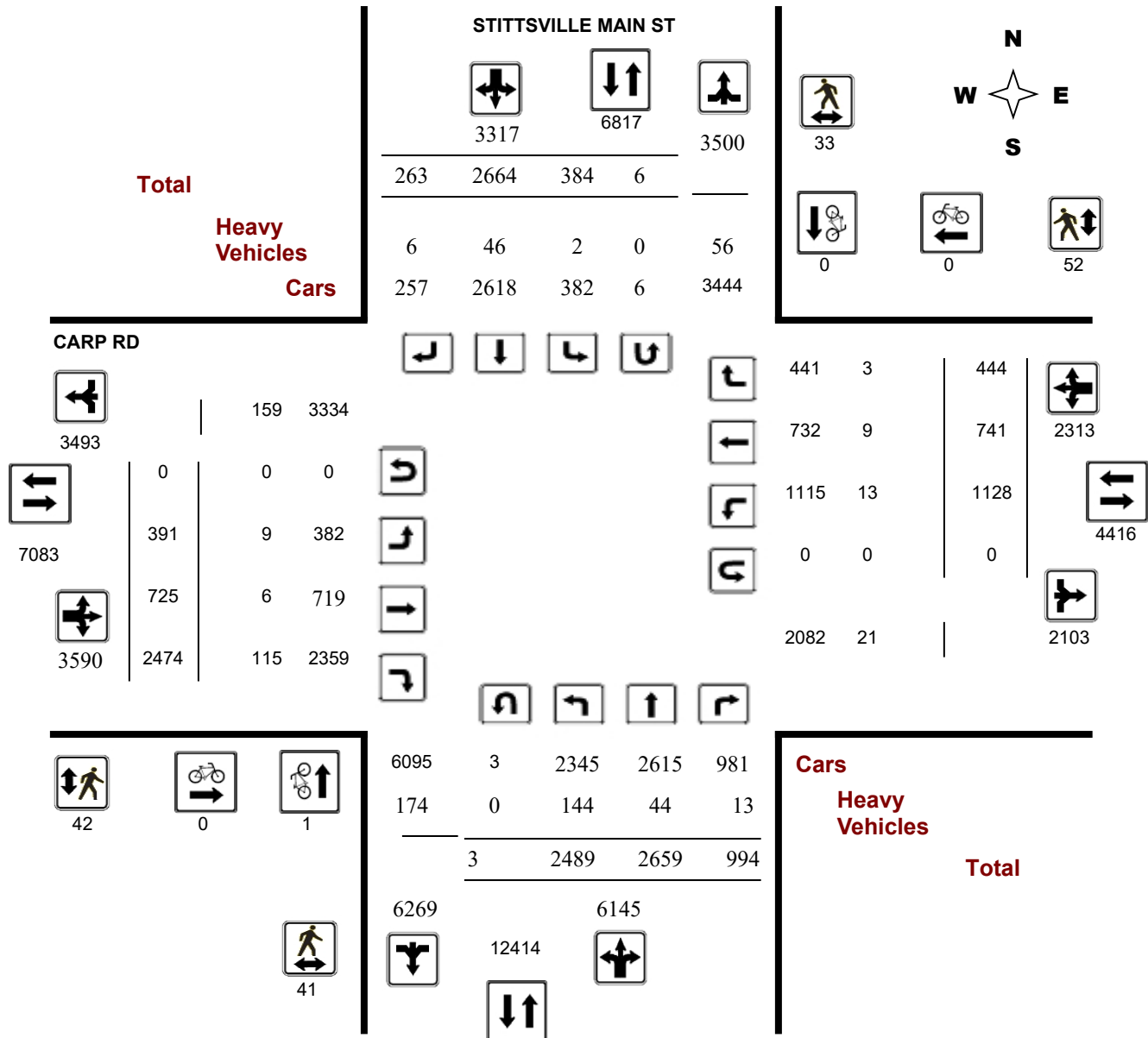
Survey Date: Wednesday, December 20, 2023

Start Time: 07:00

WO No: 41411

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

CARP RD @ STITTVILLE MAIN ST

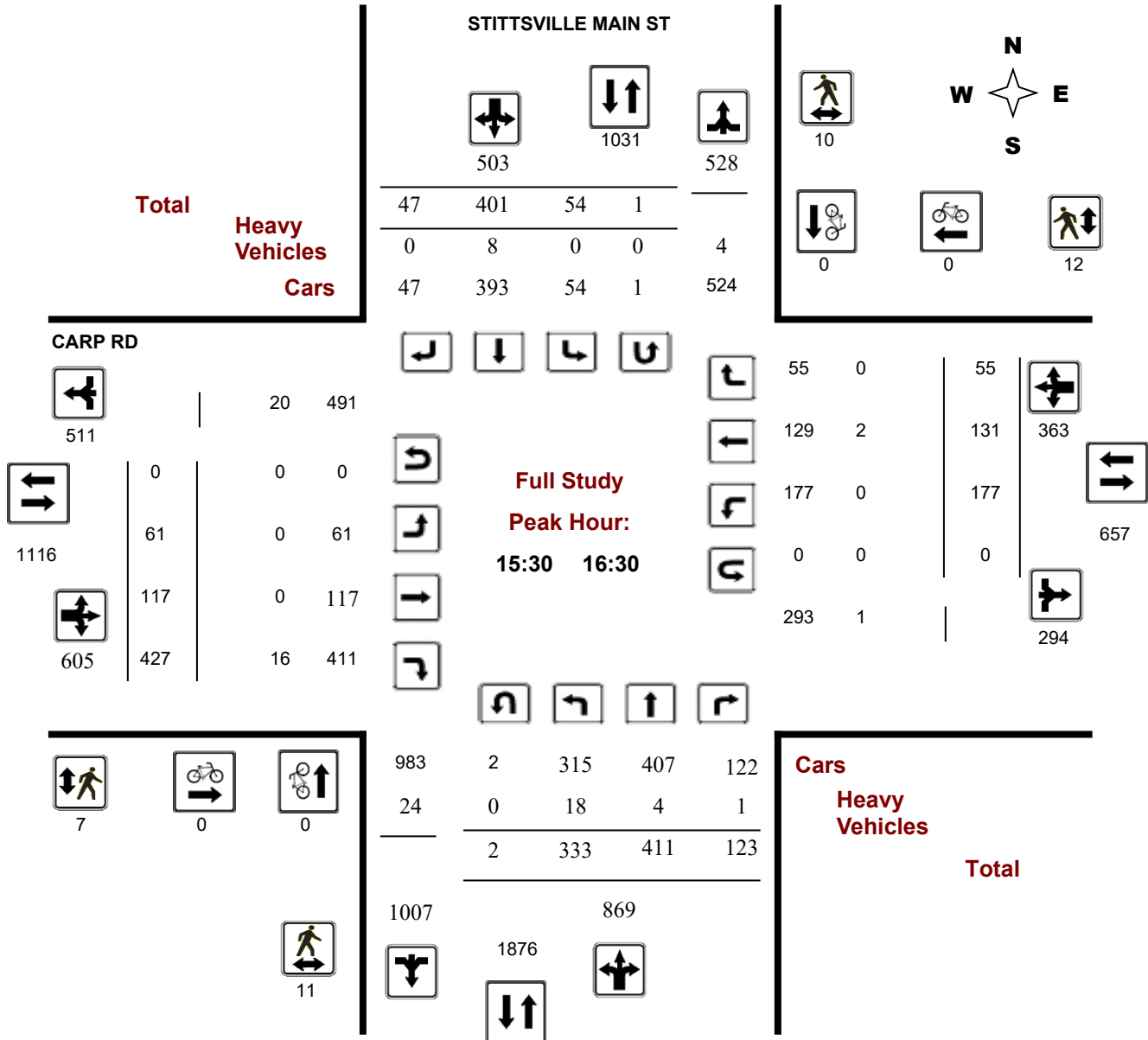
Survey Date: Wednesday, December 20, 2023

WO No: 41411

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Study Results

CARP RD @ STITTVILLE MAIN ST

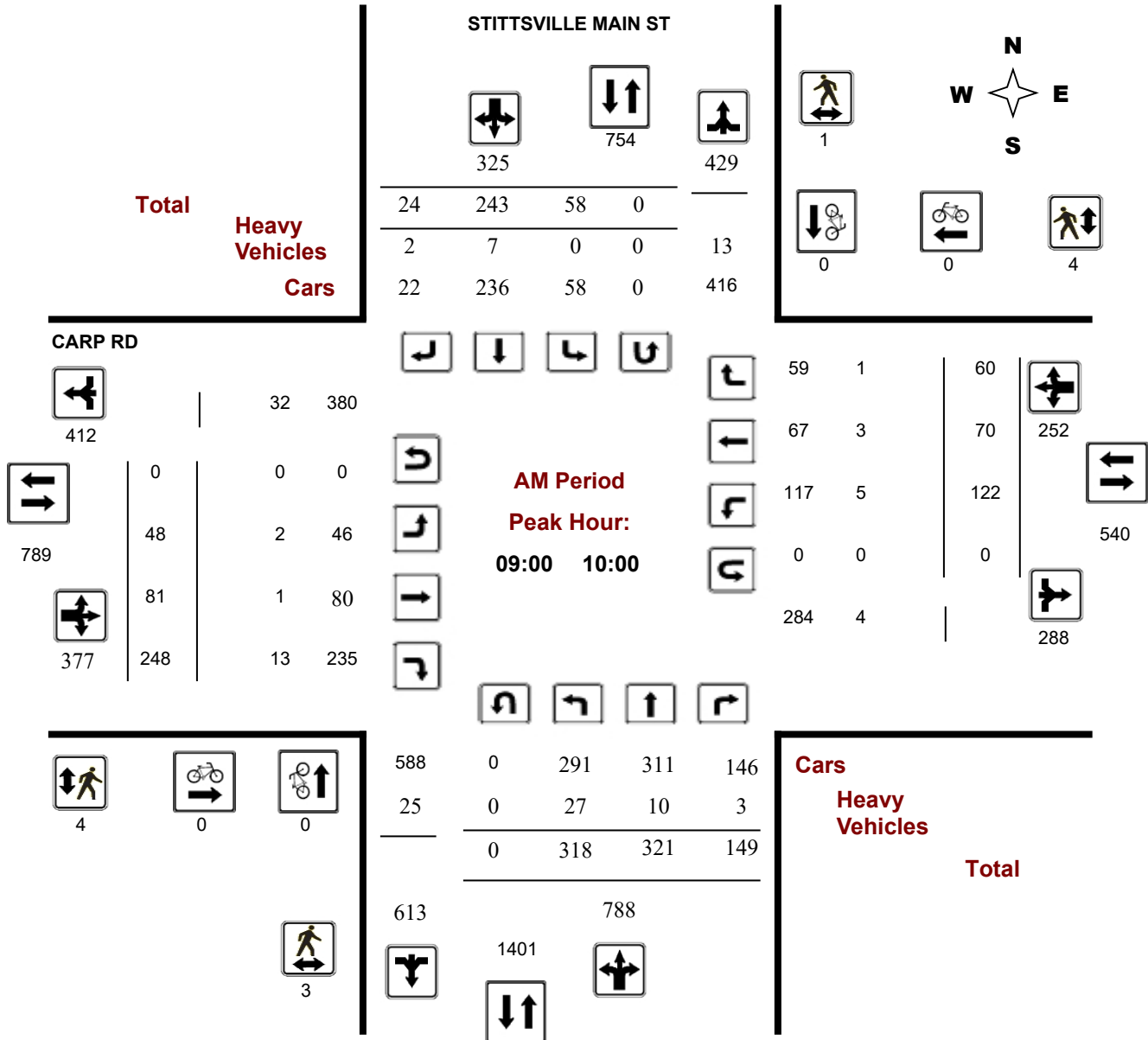
Survey Date: Wednesday, December 20, 2023

WO No: 41411

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



Turning Movement Count - Study Results

CARP RD @ STITTSVILLE MAIN ST

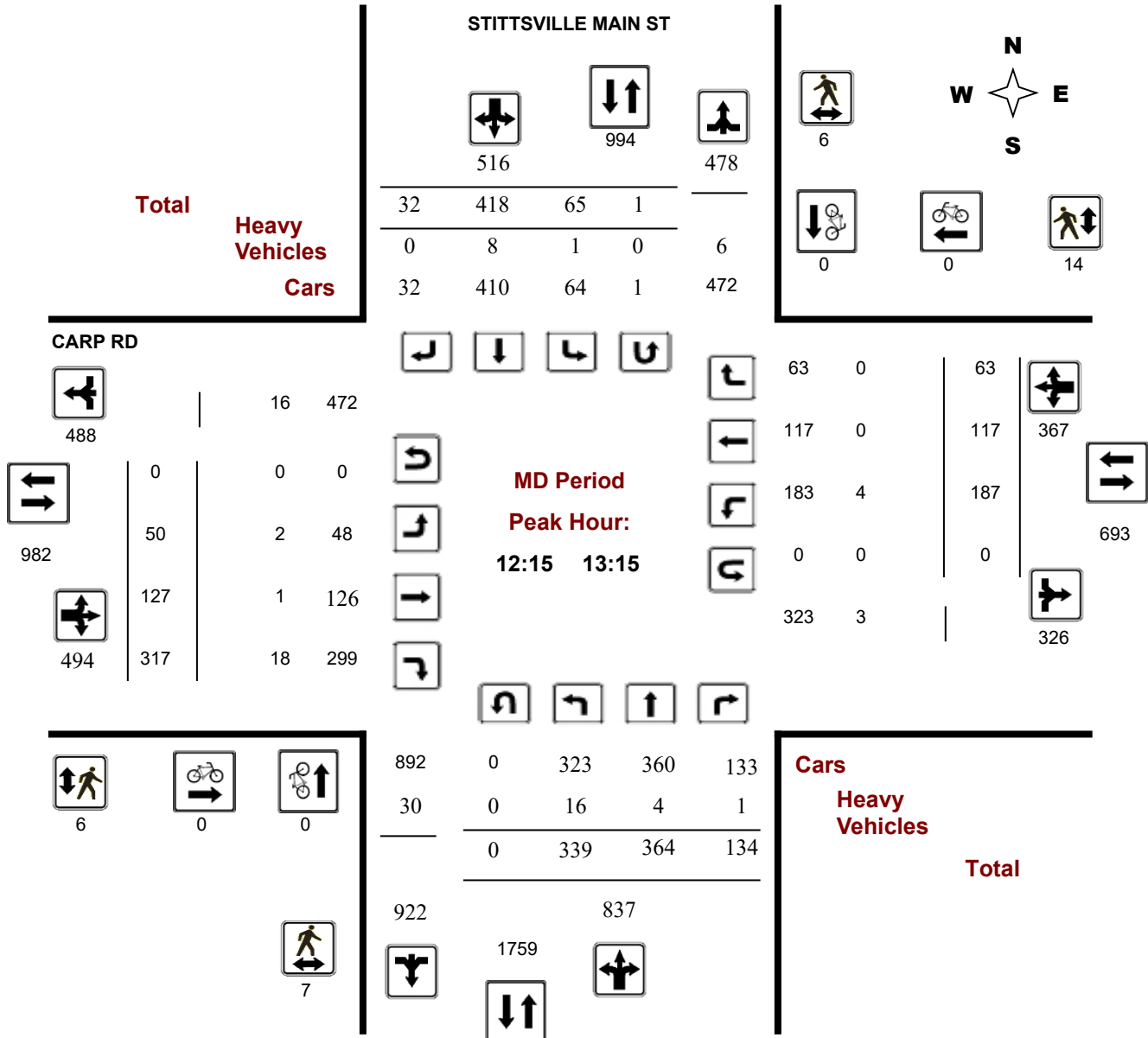
Survey Date: Wednesday, December 20, 2023

WO No: 41411

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



Turning Movement Count - Study Results

CARP RD @ STITTVILLE MAIN ST

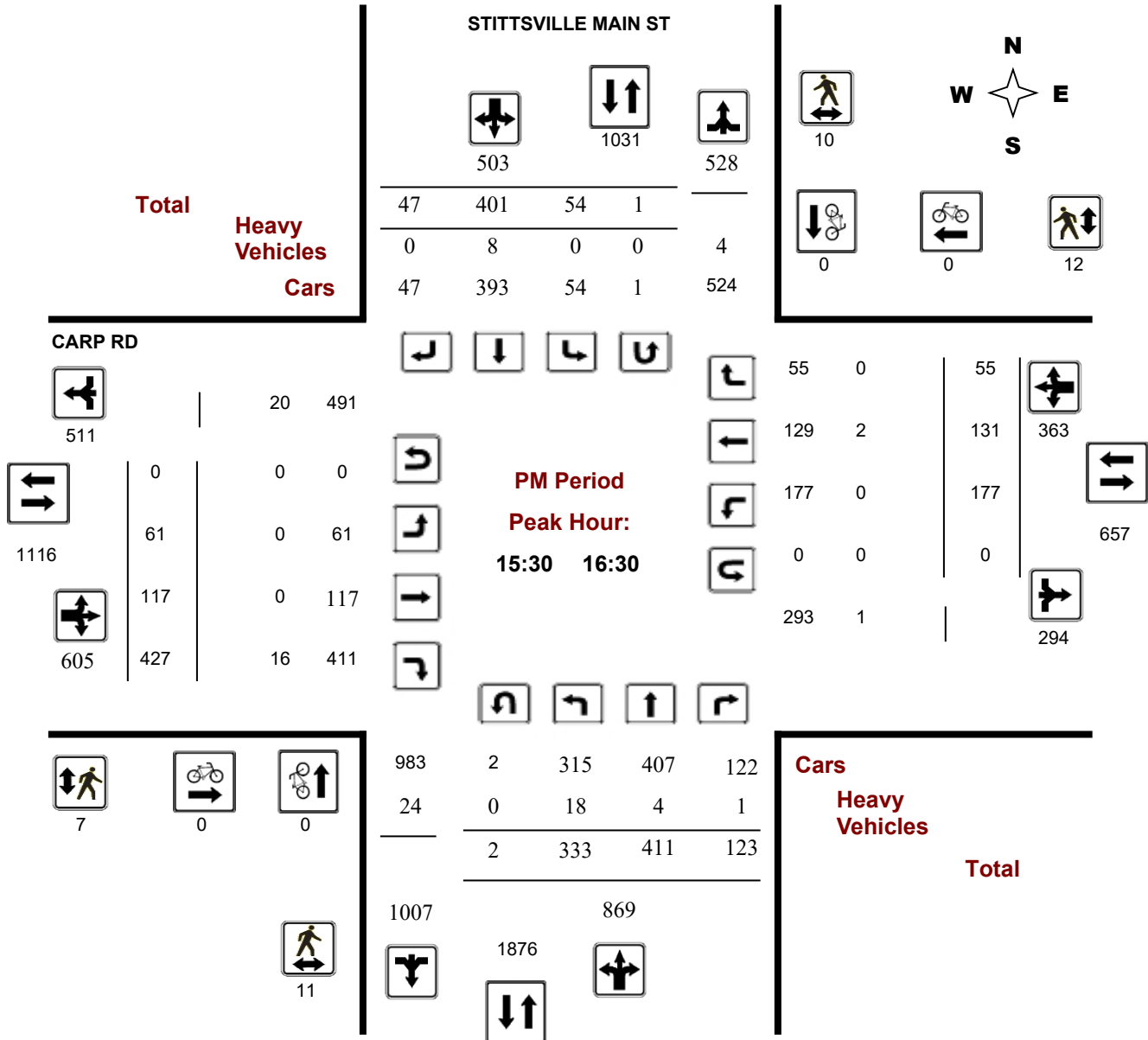
Survey Date: Wednesday, December 20, 2023

WO No: 41411

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

CARP RD @ STITTSVILLE MAIN ST

Survey Date: Wednesday, December 20, 2023

WO No: 41411

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, December 20, 2023

Total Observed U-Turns

Northbound: 3 Southbound: 6
Eastbound: 0 Westbound: 0

AADT Factor

1.00

STITTSVILLE MAIN ST

CARP RD

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total
	LT	ST	RT	NB TOT		LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT		LT	ST	RT	WB TOT	STR TOT	
07:00 08:00	248	218	100	566		22	150	16	188	754	25	44	186	255		43	44	29	116	371	1125
08:00 09:00	310	294	128	732		33	210	15	258	990	31	74	248	353		95	63	44	202	555	1545
09:00 10:00	318	321	149	788		58	243	24	325	1113	48	81	248	377		122	70	60	252	629	1742
11:30 12:30	295	380	129	804		63	388	28	479	1283	67	107	315	489		168	124	79	371	860	2143
12:30 13:30	335	376	135	846		61	414	34	509	1355	57	117	313	487		166	102	64	332	819	2174
15:00 16:00	305	367	117	789		51	387	59	497	1286	60	103	415	578		178	121	58	357	935	2221
16:00 17:00	340	353	122	815		56	424	40	520	1335	49	114	393	556		176	119	57	352	908	2243
17:00 18:00	338	350	114	802		40	448	47	535	1337	54	85	356	495		180	98	53	331	826	2163
Sub Total	2489	2659	994	6142		384	2664	263	3311	9453	391	725	2474	3590		1128	741	444	2313	5903	15356
U Turns				3					6	9				0					0	0	9
Total	2489	2659	994	6145		384	2664	263	3317	9462	391	725	2474	3590		1128	741	444	2313	5903	15365
EQ 12Hr	3460	3696	1382	8542		534	3703	366	4611	13152	543	1008	3439	4990		1568	1030	617	3215	8205	21357

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

1.39

AVG 12Hr	3460	3696	1382	8542		534	4851	479	4611	13152	543	1008	3439	4990		1568	1030	617	3215	8205	21357
-----------------	------	------	------	------	--	-----	------	-----	------	-------	-----	------	------	------	--	------	------	-----	------	------	-------

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.

1.00

AVG 24Hr	4533	4842	1810	11190		700	6355	627	6040	17229	711	1320	4505	6537		2054	1349	808	4212	10749	27978
-----------------	------	------	------	-------	--	-----	------	-----	------	-------	-----	------	------	------	--	------	------	-----	------	-------	-------

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

CARP RD @ STITTSVILLE MAIN ST

Survey Date: Wednesday, December 20, 2023

WO No: 41411

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

STITTSVILLE MAIN ST

CARP RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
09:30 09:45	77	87	35	199	14	54	7	75	274	7	18	61	86	28	23	18	69	155	429
09:45 10:00	84	99	37	220	19	69	9	97	317	13	22	57	92	28	21	19	68	160	477
11:30 11:45	76	89	32	198	14	95	8	117	315	23	23	86	132	46	21	19	86	218	533
15:30 15:45	88	84	31	205	14	87	17	118	323	13	28	106	147	50	32	14	96	243	566
09:15 09:30	81	82	41	204	12	68	5	85	289	11	24	58	93	38	15	11	64	157	446
11:45 12:00	73	106	27	206	14	96	8	118	324	18	27	88	133	37	30	24	91	224	548
12:00 12:15	63	101	44	208	19	88	6	113	321	18	26	62	106	33	34	18	85	191	512
12:15 12:30	83	84	26	193	16	109	6	131	324	8	31	79	118	52	39	18	109	227	551
12:30 12:45	80	78	38	196	16	104	10	130	326	14	31	90	135	49	29	19	97	232	558
12:45 13:00	89	111	30	230	14	92	6	113	343	12	29	82	123	45	24	13	82	205	548
13:00 13:15	87	91	40	218	19	113	10	142	360	16	36	66	118	41	25	13	79	197	557
13:15 13:30	79	96	27	202	12	105	8	125	327	15	21	75	111	31	24	19	74	185	512
15:00 15:15	68	91	32	191	16	98	13	127	318	8	26	99	133	38	31	18	87	220	538
15:15 15:30	75	81	22	178	18	105	17	141	319	17	20	104	141	51	23	10	84	225	544
15:45 16:00	74	111	32	217	3	97	12	113	330	22	29	106	157	39	35	16	90	247	577
16:00 16:15	97	117	27	241	20	107	9	136	377	14	34	116	164	33	37	13	83	247	624
16:15 16:30	74	99	33	206	17	110	9	136	342	12	26	99	137	55	27	12	94	231	573
16:30 16:45	90	72	32	194	11	109	10	130	324	14	34	84	132	39	27	15	81	213	537
16:45 17:00	79	65	30	174	8	98	12	118	292	9	20	94	123	49	28	17	94	217	509
17:00 17:15	91	81	35	207	10	111	12	134	341	16	23	96	135	46	27	20	93	228	569
17:15 17:30	70	92	32	194	13	116	11	140	334	11	22	86	119	52	33	15	100	219	553
17:30 17:45	100	80	22	202	6	109	13	129	331	9	22	87	118	38	24	11	73	191	522
17:45 18:00	77	97	25	199	11	112	11	134	333	18	18	87	123	44	14	7	65	188	521
07:00 07:15	48	36	23	107	5	18	6	29	136	6	5	29	40	8	10	11	29	69	205
07:15 07:30	48	35	23	106	8	36	3	47	153	5	13	42	60	13	11	7	31	91	244
07:30 07:45	68	64	26	158	3	48	3	54	212	6	7	53	66	13	14	4	31	97	309
07:45 08:00	84	83	28	195	6	48	4	59	254	8	19	62	89	9	9	7	25	114	368
08:00 08:15	70	78	36	184	4	38	5	47	231	6	14	50	70	21	17	14	52	122	353
08:15 08:30	78	78	23	179	6	57	2	65	244	9	12	76	97	24	17	11	52	149	393
08:30 08:45	75	71	33	179	15	53	3	71	250	7	22	54	83	20	10	9	39	122	372
08:45 09:00	87	67	36	190	8	62	5	75	265	9	26	68	103	30	19	10	59	162	427
09:00 09:15	76	53	36	165	13	52	3	68	233	17	17	72	106	28	11	12	51	157	390
Total:	2489	2659	994	6145	384	2664	263	3317	9462	391	725	2474	3590	1128	741	444	2313	5903	15,365

Note: U-Turns are included in Totals, cyclist volume is not included in totals. For cyclist volumes refer to Cyclist Volume report.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

CARP RD @ STITTSVILLE MAIN ST

Survey Date: Wednesday, December 20, 2023

WO No: 41411

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

STITTSVILLE MAIN ST

CARP RD

Time Period		STITTSVILLE MAIN ST			CARP RD			Grand Total
		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
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
15:30	15:45	0	0	0	0	0	0	0
09:15	09:30	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	1	0	1	0	0	0	1
15:15	15:30	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
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
Total		1	0	1	0	0	0	1



Transportation Services - Traffic Services

Turning Movement Count - Study Results

CARP RD @ STITTSVILLE MAIN ST

Survey Date: Wednesday, December 20, 2023

WO No: 41411

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

STITTSVILLE MAIN ST

CARP RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
09:30 09:45	1	0	1	2	0	2	3
09:45 10:00	2	1	3	2	3	5	8
11:30 11:45	3	2	5	3	2	5	10
15:30 15:45	0	2	2	2	4	6	8
09:15 09:30	0	0	0	0	1	1	1
11:45 12:00	0	1	1	3	2	5	6
12:00 12:15	3	3	6	1	5	6	12
12:15 12:30	3	1	4	0	3	3	7
12:30 12:45	0	0	0	0	6	6	6
12:45 13:00	4	4	8	0	4	4	12
13:00 13:15	0	1	1	6	1	7	8
13:15 13:30	0	0	0	0	0	0	0
15:00 15:15	2	1	3	1	1	2	5
15:15 15:30	3	1	4	0	0	0	4
15:45 16:00	3	3	6	3	2	5	11
16:00 16:15	4	3	7	1	4	5	12
16:15 16:30	4	2	6	1	2	3	9
16:30 16:45	0	0	0	1	0	1	1
16:45 17:00	3	1	4	0	1	1	5
17:00 17:15	2	1	3	2	2	4	7
17:15 17:30	0	0	0	0	0	0	0
17:30 17:45	2	1	3	1	1	2	5
17:45 18:00	0	1	1	4	0	4	5
07:00 07:15	0	0	0	3	0	3	3
07:15 07:30	1	1	2	2	0	2	4
07:30 07:45	1	0	1	1	2	3	4
07:45 08:00	0	0	0	0	2	2	2
08:00 08:15	0	1	1	0	1	1	2
08:15 08:30	0	0	0	1	1	2	2
08:30 08:45	0	0	0	1	0	1	1
08:45 09:00	0	2	2	1	2	3	5
09:00 09:15	0	0	0	0	0	0	0
Total	41	33	74	42	52	94	168



Transportation Services - Traffic Services

Turning Movement Count - Study Results

CARP RD @ STITTSVILLE MAIN ST

Survey Date: Wednesday, December 20, 2023

WO No: 41411

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

STITTSVILLE MAIN ST

CARP RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
09:30 09:45	6	5	0	11	0	1	1	2	13	0	0	4	4	2	1	1	4	8	21
09:45 10:00	5	0	0	5	0	1	1	2	7	0	1	5	6	1	1	0	2	8	15
11:30 11:45	8	0	0	8	0	2	1	3	11	1	1	4	6	1	1	0	2	8	19
15:30 15:45	9	0	0	9	0	3	0	3	12	0	0	5	5	0	1	0	1	6	18
09:15 09:30	13	3	2	18	0	3	0	3	21	1	0	2	3	0	1	0	1	4	25
11:45 12:00	4	1	1	6	0	0	0	0	6	0	0	5	5	1	0	0	1	6	12
12:00 12:15	3	1	0	4	0	1	0	1	5	1	0	3	4	0	0	0	0	4	9
12:15 12:30	7	0	1	8	1	1	0	2	10	0	1	4	5	0	0	0	0	5	15
12:30 12:45	3	1	0	4	0	0	0	0	4	0	0	10	10	3	0	0	3	13	17
12:45 13:00	2	2	0	4	0	1	0	1	5	1	0	3	4	1	0	0	1	5	10
13:00 13:15	4	1	0	5	0	6	0	6	11	1	0	1	2	0	0	0	0	2	13
13:15 13:30	5	2	2	9	0	0	0	0	9	1	0	5	6	0	0	0	0	6	15
15:00 15:15	8	3	0	11	0	1	0	1	12	0	1	3	4	0	0	0	0	4	16
15:15 15:30	3	1	1	5	1	0	1	2	7	0	0	2	2	0	0	1	1	3	10
15:45 16:00	2	1	0	3	0	5	0	5	8	0	0	2	2	0	1	0	1	3	11
16:00 16:15	3	1	0	4	0	0	0	0	4	0	0	4	4	0	0	0	0	4	8
16:15 16:30	4	2	1	7	0	0	0	0	7	0	0	5	5	0	0	0	0	5	12
16:30 16:45	7	2	0	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	9
16:45 17:00	0	1	0	1	0	0	0	0	1	0	0	3	3	0	0	0	0	3	4
17:00 17:15	2	1	0	3	0	0	0	0	3	0	0	1	1	0	0	0	0	1	4
17:15 17:30	2	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
17:30 17:45	1	0	0	1	0	0	0	0	1	0	0	5	5	0	0	0	0	5	6
17:45 18:00	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	1
07:00 07:15	3	3	0	6	0	2	1	3	9	1	1	7	9	1	0	0	1	10	19
07:15 07:30	5	4	0	9	0	3	0	3	12	1	0	6	7	1	1	0	2	9	21
07:30 07:45	1	0	1	2	0	6	0	6	8	0	0	7	7	0	0	0	0	7	15
07:45 08:00	10	1	1	12	0	0	0	0	12	0	0	7	7	0	0	0	0	7	19
08:00 08:15	7	4	1	12	0	0	0	0	12	0	0	2	2	0	1	0	1	3	15
08:15 08:30	6	2	1	9	0	1	1	2	11	0	0	5	5	0	1	0	1	6	17
08:30 08:45	5	0	0	5	0	5	0	5	10	0	0	2	2	0	0	1	1	3	13
08:45 09:00	3	0	0	3	0	1	0	1	4	0	1	1	2	0	0	0	0	2	6
09:00 09:15	3	2	1	6	0	2	0	2	8	1	0	2	3	2	0	0	2	5	13
Total: None	144	44	13	201	2	46	6	54	255	9	6	115	130	13	9	3	25	155	410

Transportation Services - Traffic Services

Turning Movement Count - Study Results

CARP RD @ STITTSTVILLE MAIN ST

Survey Date: Wednesday, December 20, 2023

WO No: 41411

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

STITTSTVILLE MAIN ST

CARP RD

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
09:30	09:45	0	0	0	0	0
09:45	10:00	0	0	0	0	0
11:30	11:45	1	0	0	0	1
15:30	15:45	2	0	0	0	2
09:15	09:30	0	0	0	0	0
11:45	12:00	0	0	0	0	0
12:00	12:15	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	0	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	0	0	0	0	0
15:15	15:30	0	1	0	0	1
15:45	16:00	0	1	0	0	1
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	1	0	0	1
17:15	17:30	0	0	0	0	0
17:30	17:45	0	1	0	0	1
17:45	18:00	0	0	0	0	0
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	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
Total		3	6	0	0	9

Turning Movement Count - Study Results

ABBOTT ST @ STITTSVILLE MAIN ST

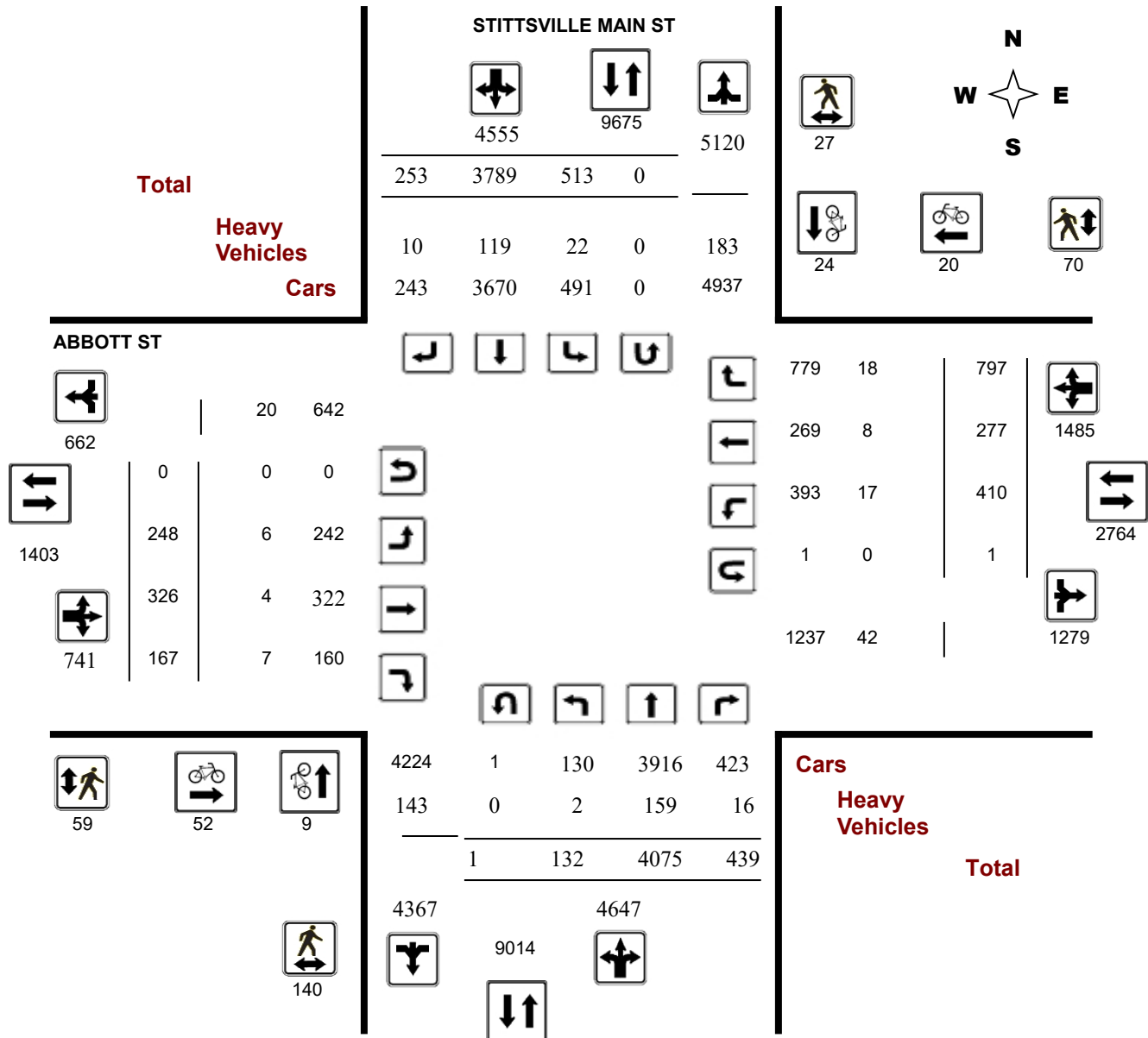
Survey Date: Wednesday, October 09, 2024

WO No: 42277

Start Time: 07:00

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

ABBOTT ST @ STITTSVILLE MAIN ST

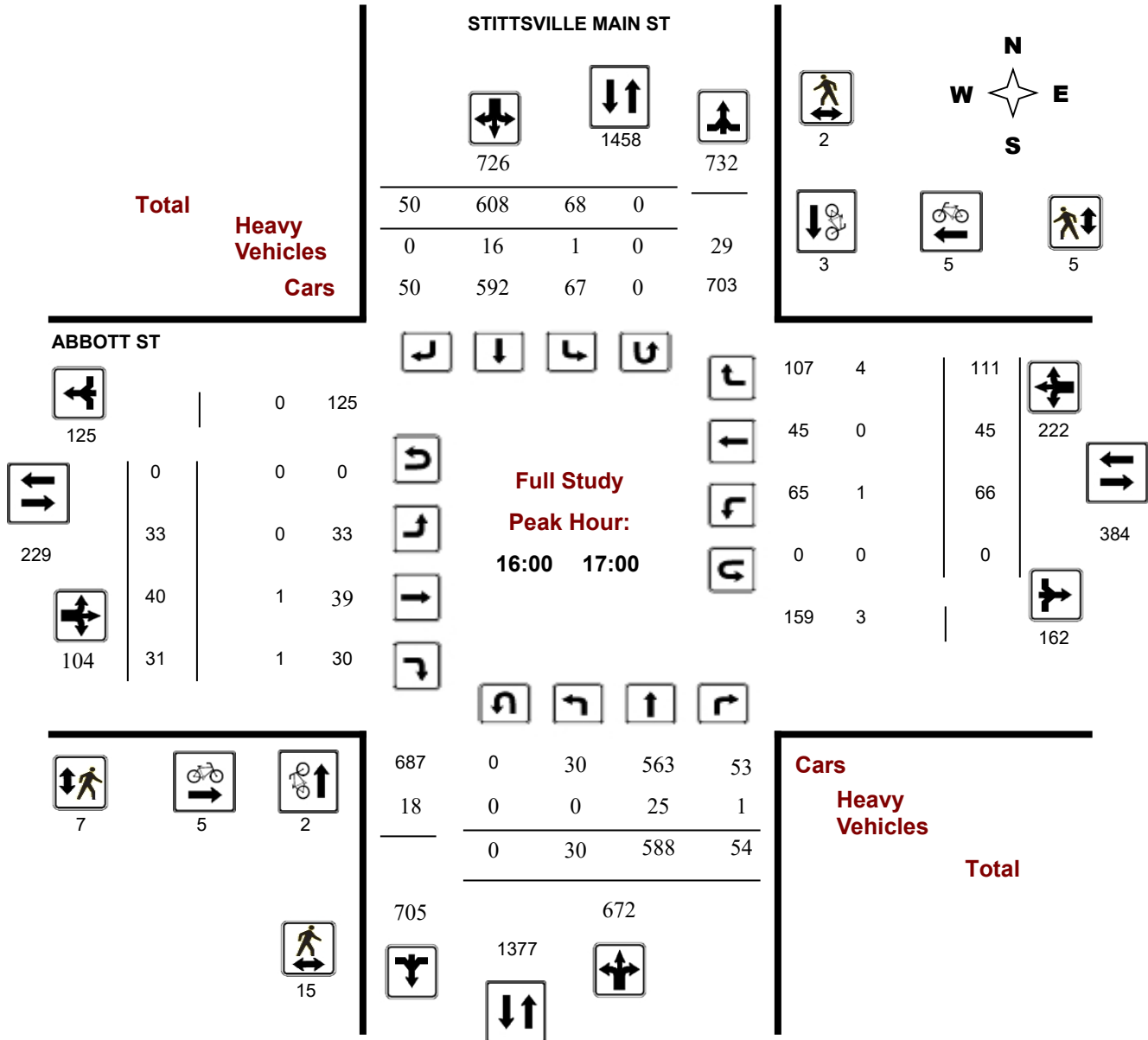
Survey Date: Wednesday, October 09, 2024

WO No: 42277

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Study Results

ABBOTT ST @ STITTSVILLE MAIN ST

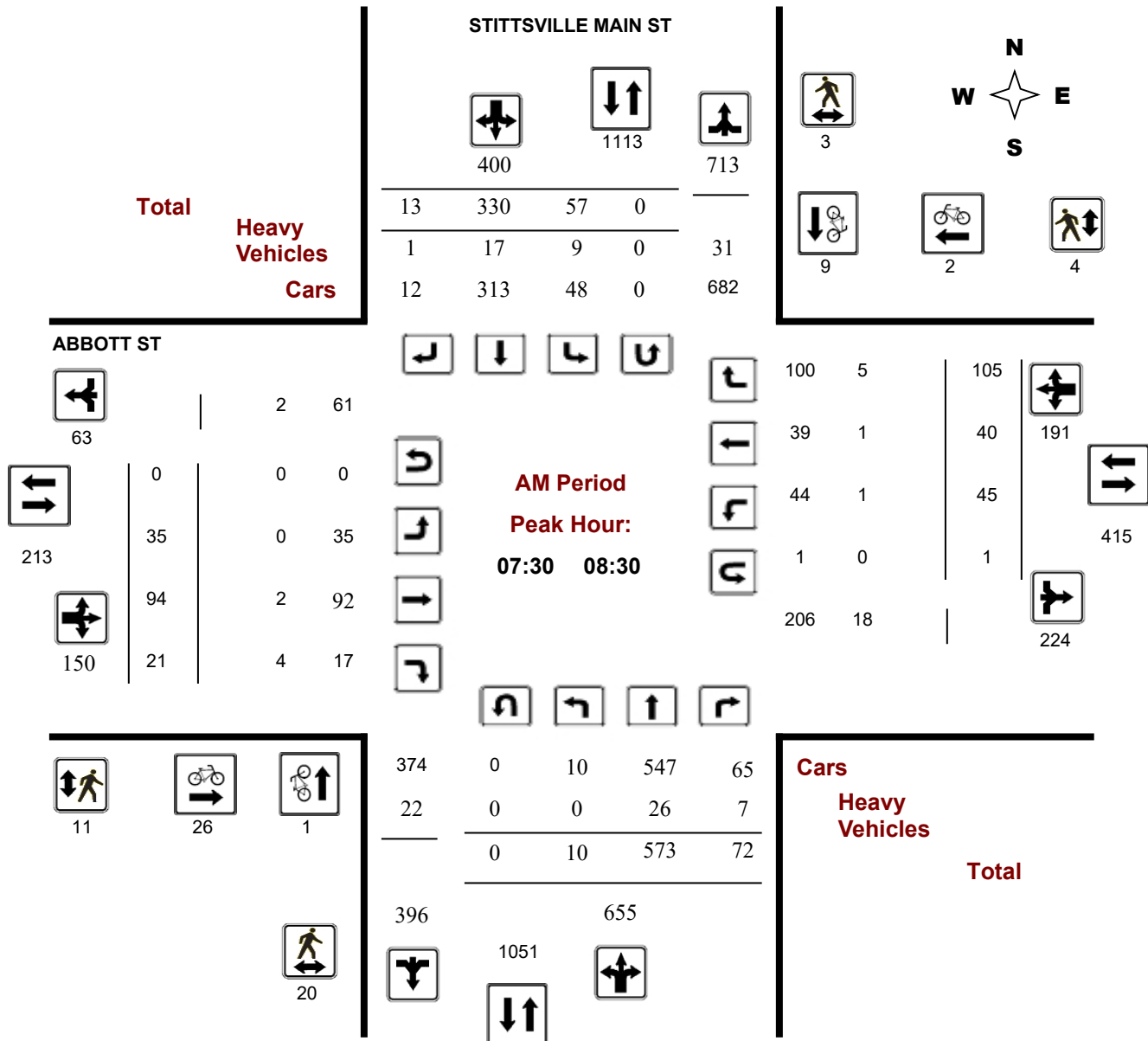
Survey Date: Wednesday, October 09, 2024

WO No: 42277

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



Turning Movement Count - Study Results

ABBOTT ST @ STITTSVILLE MAIN ST

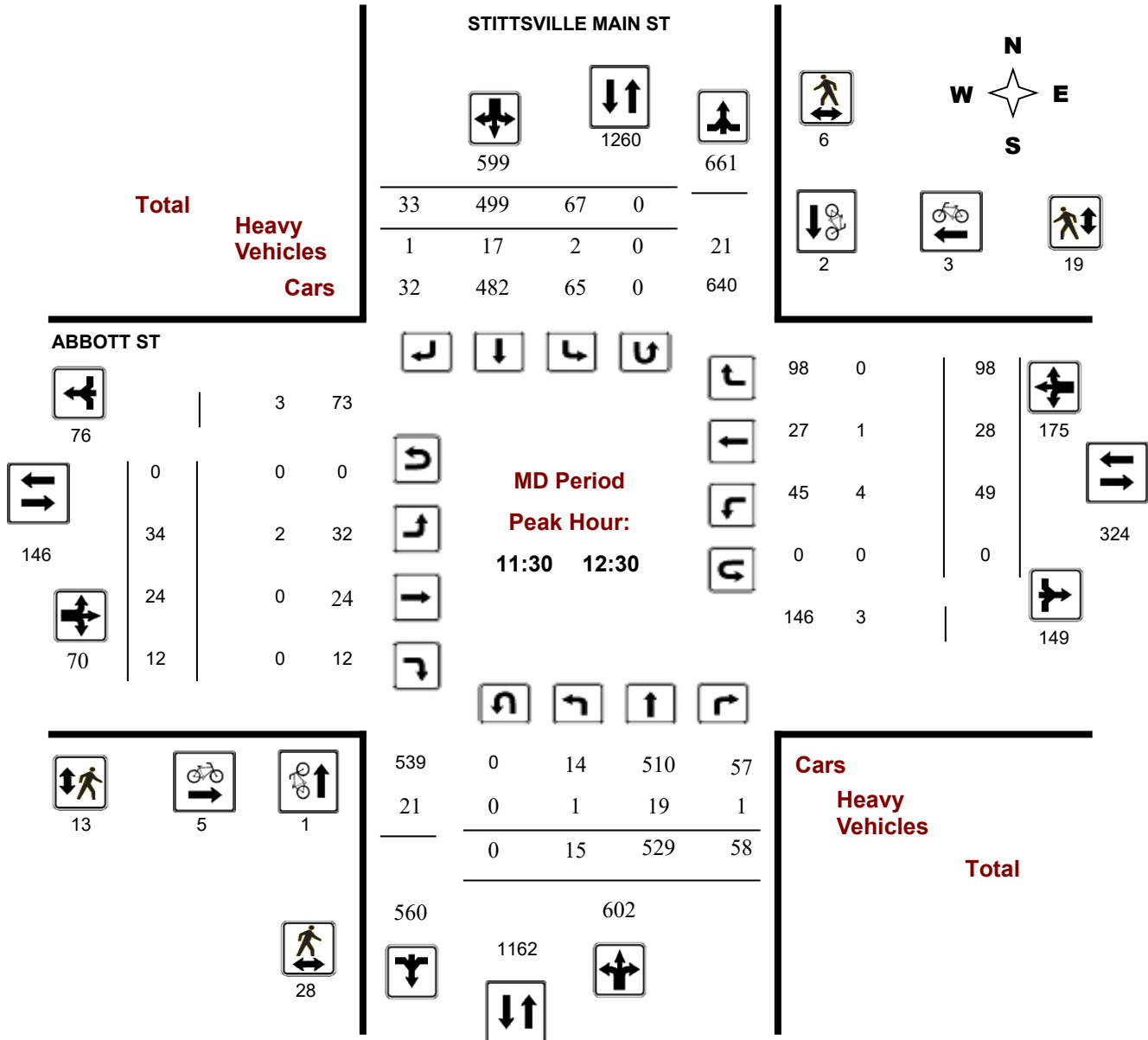
Survey Date: Wednesday, October 09, 2024

WO No: 42277

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



Turning Movement Count - Study Results

ABBOTT ST @ STITTSVILLE MAIN ST

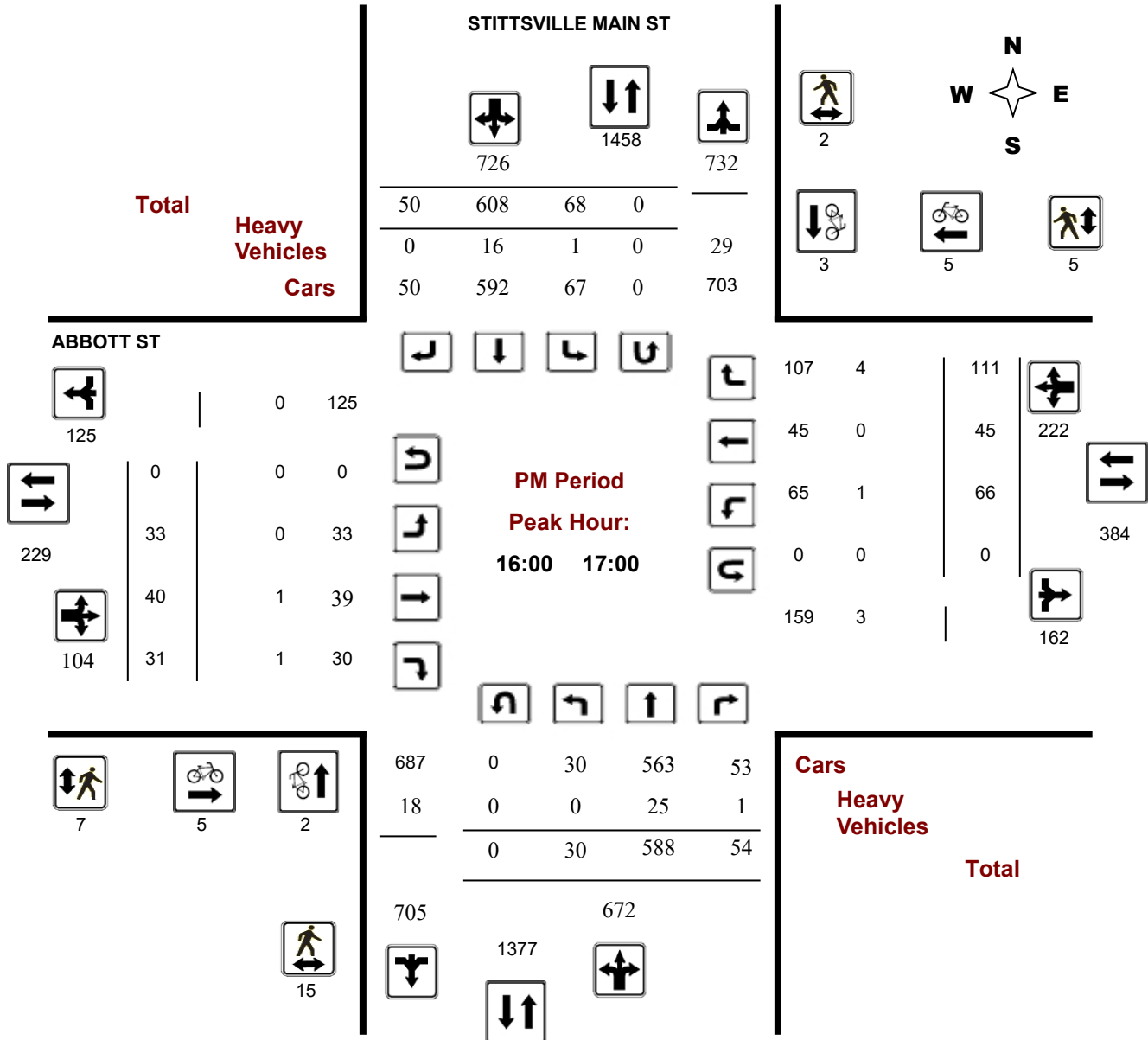
Survey Date: Wednesday, October 09, 2024

WO No: 42277

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Study Results

ABBOTT ST @ STITTSVILLE MAIN ST

Survey Date: Wednesday, October 09, 2024

WO No: 42277

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, October 09, 2024

Total Observed U-Turns

AADT Factor

Northbound: 1 Southbound: 0

.90

Eastbound: 0 Westbound: 1

STITTSVILLE MAIN ST

ABBOTT ST

Period		Northbound				Southbound				Eastbound				Westbound				STR TOT	Grand Total				
		LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT						
07:00	08:00	5	443	67	515	60	253	9	322	837	30	94	14	138	35	25	62	122	260	1097			
08:00	09:00	14	566	42	622	43	383	18	444	1066	26	43	30	99	37	33	106	176	275	1341			
09:00	10:00	20	507	50	577	54	398	33	485	1062	23	30	15	68	54	26	98	178	246	1308			
11:30	12:30	15	529	58	602	67	499	33	599	1201	34	24	12	70	49	28	98	175	245	1446			
12:30	13:30	12	443	55	510	66	470	32	568	1078	35	27	22	84	59	22	87	168	252	1330			
15:00	16:00	17	485	59	561	67	552	28	647	1208	32	39	27	98	59	55	115	229	327	1535			
16:00	17:00	30	588	54	672	68	608	50	726	1398	33	40	31	104	66	45	111	222	326	1724			
17:00	18:00	19	514	54	587	88	626	50	764	1351	35	29	16	80	51	43	120	214	294	1645			
Sub Total		132	4075	439	4646	513	3789	253	4555	9201	248	326	167	741	410	277	797	1484	2225	11426			
U Turns		1				0				1				0				1				1	2
Total		132	4075	439	4647	513	3789	253	4555	9202	248	326	167	741	410	277	797	1485	2226	11428			
EQ 12Hr		183	5664	610	6459	713	5267	352	6331	12791	345	453	232	1030	570	385	1108	2064	3094	15885			
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														1.39									
AVG 12Hr		165	5098	549	5813	642	6209	415	5698	11512	310	408	209	927	513	346	997	1858	2785	14296			
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														.90									
AVG 24Hr		216	6678	719	7615	841	8134	544	7464	15081	406	534	274	1214	672	453	1306	2434	3648	18728			
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

ABBOTT ST @ STITTSVILLE MAIN ST

Survey Date: Wednesday, October 09, 2024

WO No: 42277

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

STITTSVILLE MAIN ST

ABBOTT ST

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	90	13	103	12	42	1	55	158	7	8	1	16	4	1	4	9	25	183
07:15	07:30	1	93	9	103	10	58	4	72	175	7	13	3	23	6	6	7	19	42	217
07:30	07:45	1	110	23	134	25	64	0	89	223	10	32	6	48	12	10	24	46	94	317
12:45	13:00	3	119	15	137	18	121	7	146	283	10	9	3	22	14	4	29	47	69	352
17:45	18:00	2	132	10	144	24	165	10	199	343	5	9	4	18	12	6	28	46	64	407
07:45	08:00	3	150	22	175	13	89	4	106	281	6	41	4	51	13	8	27	48	99	380
08:00	08:15	3	148	18	169	11	72	6	89	258	15	12	4	31	12	16	30	59	90	348
08:15	08:30	3	165	9	177	8	105	3	116	293	4	9	7	20	8	6	24	38	58	351
08:30	08:45	4	134	8	146	11	97	6	114	260	1	11	8	20	10	4	21	35	55	315
08:45	09:00	4	119	7	130	13	109	3	125	255	6	11	11	28	7	7	31	45	73	328
09:00	09:15	6	125	18	149	14	97	9	120	269	6	11	4	21	9	9	19	37	58	327
09:15	09:30	1	151	7	159	20	95	9	124	283	3	5	5	13	13	6	25	44	57	340
09:30	09:45	3	122	16	142	10	89	7	106	248	3	6	1	10	14	6	25	45	55	303
09:45	10:00	10	109	9	128	10	117	8	135	263	11	8	5	24	18	5	29	52	76	339
11:30	11:45	6	141	11	158	14	117	5	136	294	5	6	4	15	12	10	19	41	56	350
11:45	12:00	5	134	18	157	13	126	13	152	309	12	6	2	20	10	6	24	40	60	369
12:00	12:15	3	129	16	148	21	127	5	153	301	9	6	1	16	16	5	29	50	66	367
12:15	12:30	1	125	13	139	19	129	10	158	297	8	6	5	19	11	7	26	44	63	360
12:30	12:45	2	127	11	140	16	109	6	131	271	10	8	6	24	14	5	22	41	65	336
13:00	13:15	2	96	15	113	20	142	9	171	284	6	8	7	21	16	9	21	46	67	351
13:15	13:30	5	101	14	120	12	98	10	120	240	9	2	6	17	15	4	15	34	51	291
15:00	15:15	3	117	14	134	13	133	10	156	290	5	10	2	17	20	14	29	63	80	370
15:15	15:30	4	138	19	161	18	152	6	176	337	6	9	9	24	13	12	33	58	82	419
15:30	15:45	2	116	13	131	14	133	8	155	286	9	10	9	28	8	9	27	44	72	358
15:45	16:00	8	114	13	135	22	134	4	160	295	12	10	7	29	18	20	26	64	93	388
16:00	16:15	4	143	14	161	16	174	11	201	362	5	10	6	21	21	11	30	62	83	445
16:15	16:30	7	152	13	172	16	142	14	172	344	9	14	10	33	17	15	31	63	96	440
16:30	16:45	11	158	14	183	13	131	10	154	337	9	4	8	21	17	10	23	50	71	408
16:45	17:00	8	135	13	156	23	161	15	199	355	10	12	7	29	11	9	27	47	76	431
17:00	17:15	7	134	15	156	22	167	8	197	353	11	8	6	25	14	14	27	55	80	433
17:15	17:30	6	122	14	142	16	147	13	176	318	12	7	3	22	10	11	35	56	78	396
17:30	17:45	4	126	15	145	26	147	19	192	337	7	5	3	15	15	12	30	57	72	409
Total:		132	4075	439	4647	513	3789	253	4555	9202	248	326	167	741	410	277	797	1485	2226	11,428

Note: U-Turns are included in Totals, cyclist volume is not included in totals. For cyclist volumes refer to Cyclist Volume report.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ABBOTT ST @ STITTSVILLE MAIN ST

Survey Date: Wednesday, October 09, 2024

WO No: 42277

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

STITTSVILLE MAIN ST

ABBOTT ST

Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	0	1	0	1	1
07:15	07:30	0	0	0	4	0	4	4
07:30	07:45	0	2	2	6	0	6	8
12:45	13:00	0	0	0	1	0	1	1
17:45	18:00	0	1	1	0	0	0	1
07:45	08:00	0	3	3	12	0	12	15
08:00	08:15	1	3	4	8	1	9	13
08:15	08:30	0	1	1	0	1	1	2
08:30	08:45	0	1	1	4	0	4	5
08:45	09:00	2	1	3	2	0	2	5
09:00	09:15	0	2	2	1	0	1	3
09:15	09:30	0	0	0	0	0	0	0
09:30	09:45	1	0	1	0	0	0	1
09:45	10:00	1	1	2	2	0	2	4
11:30	11:45	1	0	1	1	1	2	3
11:45	12:00	0	0	0	1	0	1	1
12:00	12:15	0	1	1	2	1	3	4
12:15	12:30	0	1	1	1	1	2	3
12:30	12:45	0	0	0	0	2	2	2
13:00	13:15	0	0	0	0	0	0	0
13:15	13:30	0	1	1	0	2	2	3
15:00	15:15	0	2	2	1	2	3	5
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	4	4	4
16:00	16:15	0	0	0	0	2	2	2
16:15	16:30	0	0	0	2	1	3	3
16:30	16:45	1	2	3	3	1	4	7
16:45	17:00	1	1	2	0	1	1	3
17:00	17:15	0	0	0	0	0	0	0
17:15	17:30	0	1	1	0	0	0	1
17:30	17:45	0	0	0	0	0	0	0
Total		9	24	33	52	20	72	105



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ABBOTT ST @ STITTSVILLE MAIN ST

Survey Date: Wednesday, October 09, 2024

WO No: 42277

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

STITTSVILLE MAIN ST

ABBOTT ST

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	1	0	1	1
07:15 07:30	0	0	0	1	1	2	2
07:30 07:45	6	1	7	5	3	8	15
12:45 13:00	4	2	6	2	2	4	10
17:45 18:00	1	2	3	2	2	4	7
07:45 08:00	8	2	10	2	1	3	13
08:00 08:15	2	0	2	0	0	0	2
08:15 08:30	4	0	4	4	0	4	8
08:30 08:45	2	0	2	0	3	3	5
08:45 09:00	8	4	12	4	3	7	19
09:00 09:15	2	0	2	0	4	4	6
09:15 09:30	9	0	9	1	3	4	13
09:30 09:45	2	1	3	2	2	4	7
09:45 10:00	4	0	4	1	11	12	16
11:30 11:45	2	0	2	3	11	14	16
11:45 12:00	8	4	12	2	5	7	19
12:00 12:15	6	1	7	3	1	4	11
12:15 12:30	12	1	13	5	2	7	20
12:30 12:45	4	0	4	5	0	5	9
13:00 13:15	8	1	9	1	3	4	13
13:15 13:30	10	3	13	3	2	5	18
15:00 15:15	8	0	8	1	0	1	9
15:15 15:30	4	1	5	0	3	3	8
15:30 15:45	5	0	5	0	2	2	7
15:45 16:00	0	1	1	0	1	1	2
16:00 16:15	4	1	5	0	0	0	5
16:15 16:30	3	0	3	0	0	0	3
16:30 16:45	1	1	2	3	0	3	5
16:45 17:00	7	0	7	4	5	9	16
17:00 17:15	0	0	0	1	0	1	1
17:15 17:30	5	0	5	1	0	1	6
17:30 17:45	1	1	2	2	0	2	4
Total	140	27	167	59	70	129	296



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ABBOTT ST @ STITTSVILLE MAIN ST

Survey Date: Wednesday, October 09, 2024

WO No: 42277

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

STITTSVILLE MAIN ST

ABBOTT ST

Northbound

Southbound

Eastbound

Westbound

Time Period		Northbound			N TOT	Southbound			S TOT	STR TOT	Eastbound			E TOT	Westbound			W TOT	STR TOT	Grand Total
		LT	ST	RT		LT	ST	RT			LT	ST	RT		LT	ST	RT			
07:00	07:15	0	3	0	3	1	2	0	3	6	0	0	0	0	1	0	1	2	2	8
07:15	07:30	0	6	0	6	1	11	3	15	21	2	0	0	2	2	2	0	4	6	27
07:30	07:45	0	3	3	6	6	1	0	7	13	0	0	3	3	1	1	1	3	6	19
12:45	13:00	0	4	0	4	0	1	0	1	5	0	0	0	0	1	0	0	1	1	6
17:45	18:00	0	1	0	1	0	3	0	3	4	0	0	0	0	0	0	0	0	0	4
07:45	08:00	0	11	3	14	0	6	0	6	20	0	2	1	3	0	0	1	1	4	24
08:00	08:15	0	7	1	8	1	6	0	7	15	0	0	0	0	0	0	2	2	2	17
08:15	08:30	0	5	0	5	2	4	1	7	12	0	0	0	0	0	0	1	1	1	13
08:30	08:45	0	2	0	2	1	7	0	8	10	0	0	1	1	0	2	0	2	3	13
08:45	09:00	0	5	1	6	1	6	0	7	13	1	0	0	1	1	1	1	3	4	17
09:00	09:15	0	7	1	8	2	4	0	6	14	0	0	0	0	3	0	1	4	4	18
09:15	09:30	0	11	1	12	0	2	2	4	16	0	0	0	0	0	0	0	0	0	16
09:30	09:45	0	4	0	4	0	1	0	1	5	0	0	0	0	0	0	1	1	1	6
09:45	10:00	1	4	0	5	0	6	0	6	11	0	0	0	0	0	0	0	0	0	11
11:30	11:45	0	10	0	10	0	3	0	3	13	0	0	0	0	2	0	0	2	2	15
11:45	12:00	0	4	0	4	0	2	1	3	7	0	0	0	0	0	0	0	0	0	7
12:00	12:15	0	2	1	3	2	6	0	8	11	1	0	0	1	0	0	0	0	1	12
12:15	12:30	1	3	0	4	0	6	0	6	10	1	0	0	1	2	1	0	3	4	14
12:30	12:45	0	5	0	5	0	1	0	1	6	1	0	0	1	0	0	1	1	2	8
13:00	13:15	0	3	0	3	0	2	3	5	8	0	0	1	1	2	0	0	2	3	11
13:15	13:30	0	9	2	11	1	1	0	2	13	0	0	0	0	0	0	0	0	0	13
15:00	15:15	0	4	0	4	0	2	0	2	6	0	1	0	1	1	0	0	1	2	8
15:15	15:30	0	7	1	8	2	3	0	5	13	0	0	0	0	0	0	1	1	1	14
15:30	15:45	0	3	0	3	0	2	0	2	5	0	0	0	0	0	0	1	1	1	6
15:45	16:00	0	2	1	3	0	7	0	7	10	0	0	0	0	0	1	1	2	2	12
16:00	16:15	0	2	0	2	0	5	0	5	7	0	0	0	0	0	0	2	2	2	9
16:15	16:30	0	11	0	11	1	3	0	4	15	0	1	0	1	0	0	1	1	2	17
16:30	16:45	0	7	1	8	0	4	0	4	12	0	0	1	1	0	0	0	0	1	13
16:45	17:00	0	5	0	5	0	4	0	4	9	0	0	0	0	1	0	1	2	2	11
17:00	17:15	0	3	0	3	0	1	0	1	4	0	0	0	0	0	0	0	0	0	4
17:15	17:30	0	2	0	2	1	2	0	3	5	0	0	0	0	0	0	0	0	0	5
17:30	17:45	0	4	0	4	0	5	0	5	9	0	0	0	0	0	0	1	1	1	10
Total:	None	2	159	16	177	22	119	10	151	328	6	4	7	17	17	8	18	43	60	388

Transportation Services - Traffic Services

Turning Movement Count - Study Results

ABBOTT ST @ STITTSVILLE MAIN ST

Survey Date: Wednesday, October 09, 2024

WO No: 42277

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

STITTSVILLE MAIN ST

ABBOTT ST

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
12:45	13:00	0	0	0	0	0
17:45	18:00	0	0	0	0	0
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	1	1
08:15	08:30	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	1	0	0	0	1
09:45	10:00	0	0	0	0	0
11:30	11:45	0	0	0	0	0
11:45	12:00	0	0	0	0	0
12:00	12:15	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	0	0	0
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	0	0	0
16:45	17:00	0	0	0	0	0
17:00	17:15	0	0	0	0	0
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
Total		1	0	0	1	2

Turning Movement Count - Study Results

FERNBANK RD @ STITTSVILLE MAIN ST

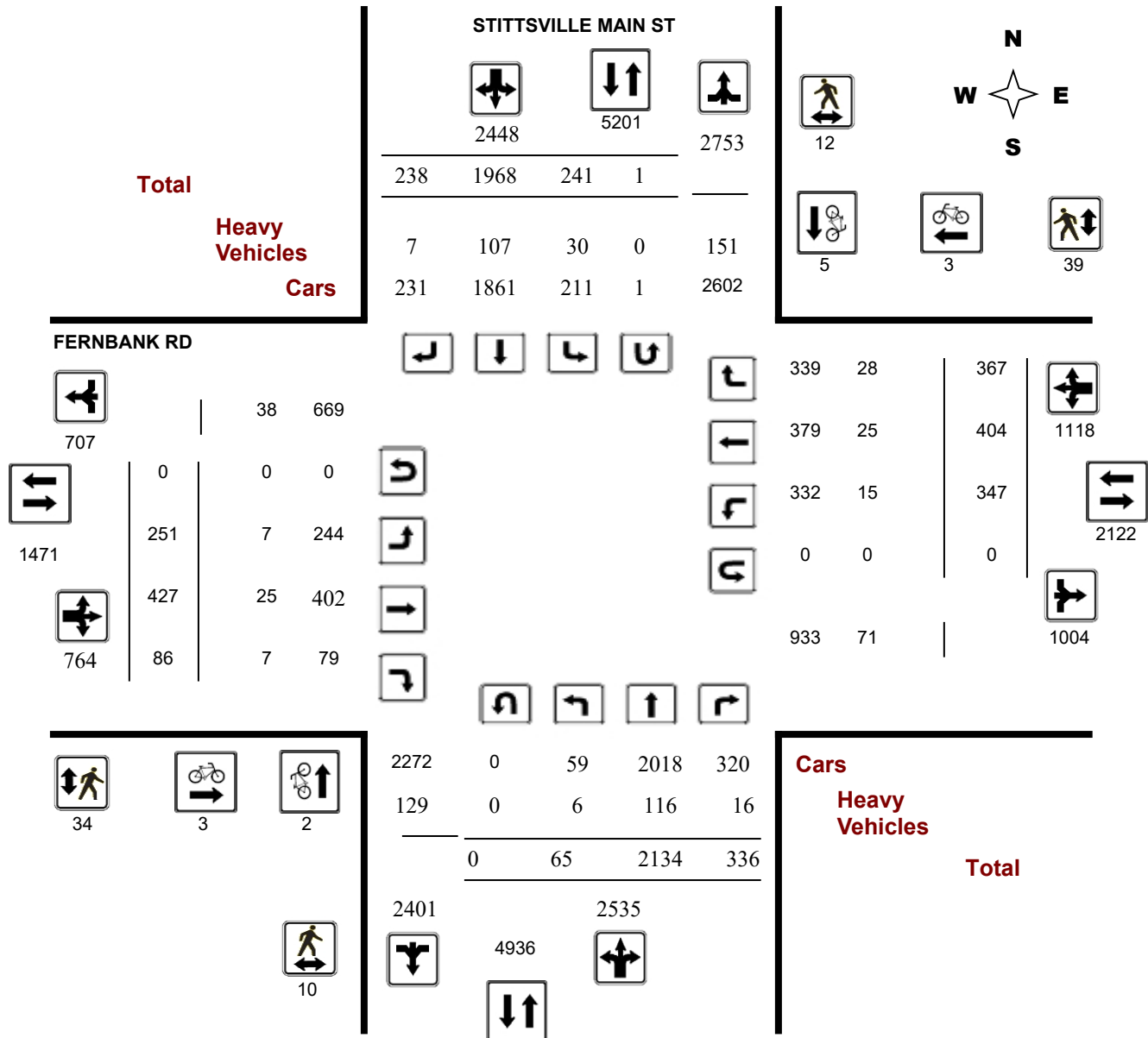
Survey Date: Tuesday, April 30, 2019

Start Time: 07:00

WO No: 38591

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

FERNBANK RD @ STITTSVILLE MAIN ST

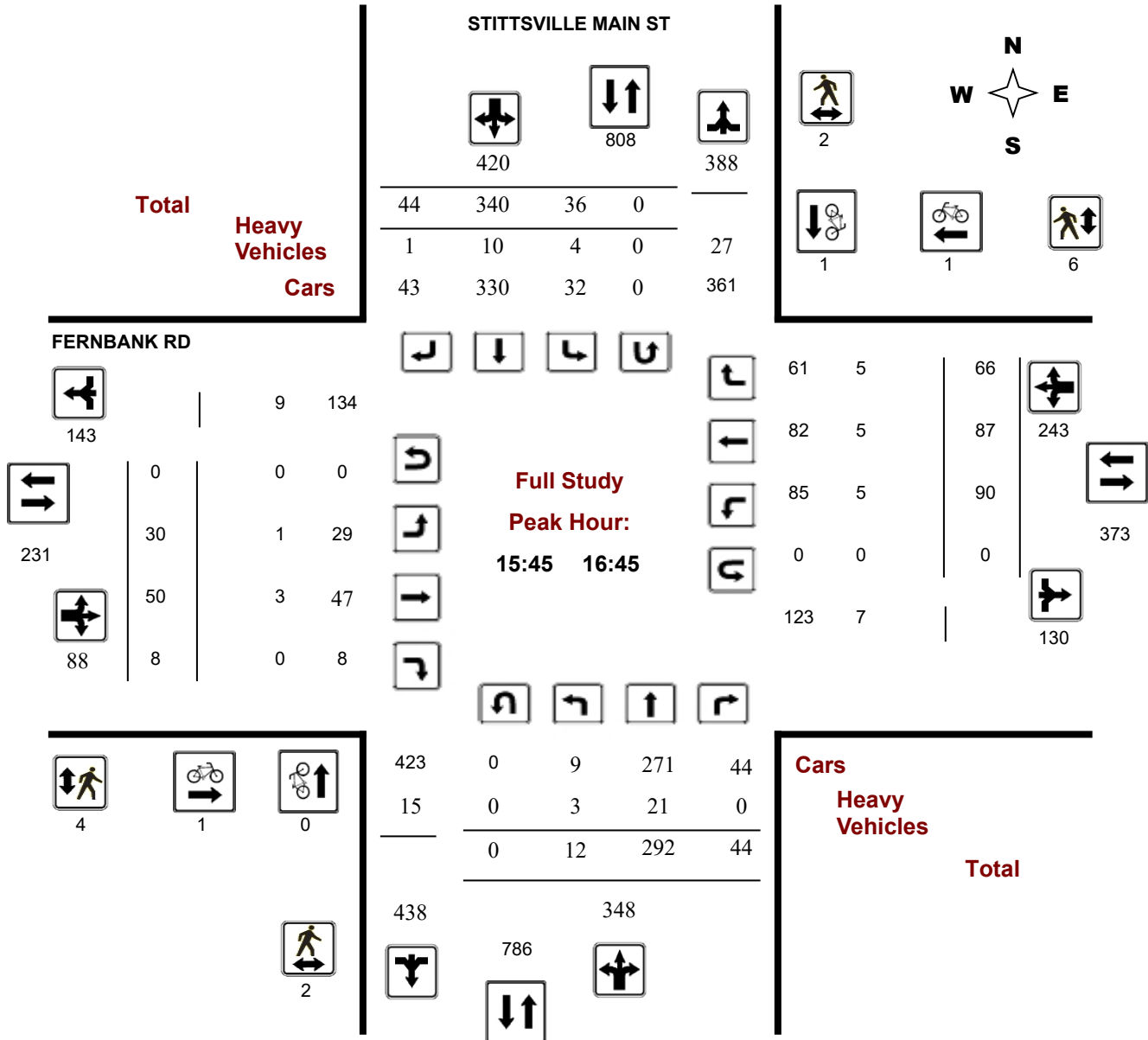
Survey Date: Tuesday, April 30, 2019

WO No: 38591

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Study Results

FERNBANK RD @ STITTSVILLE MAIN ST

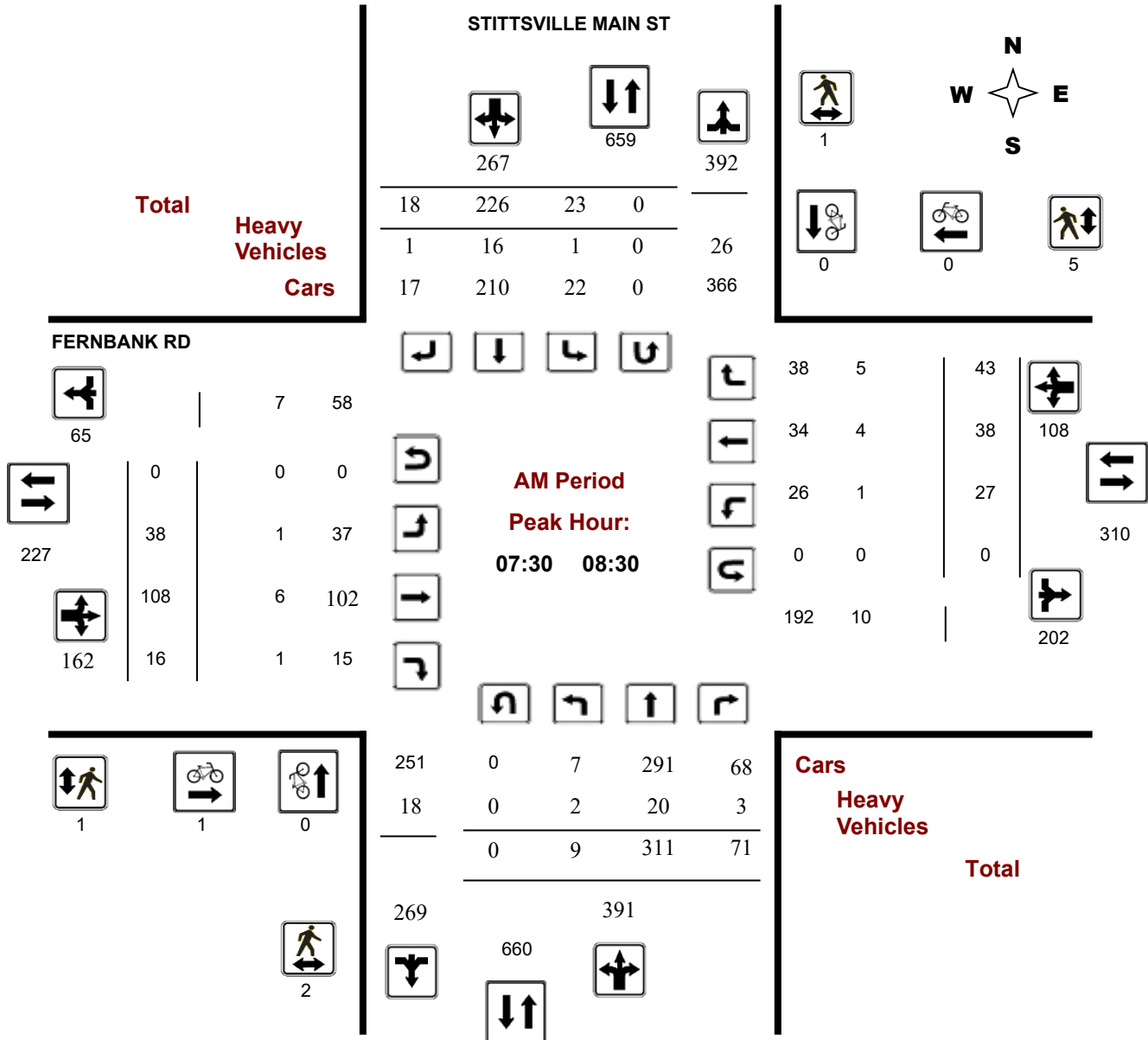
Survey Date: Tuesday, April 30, 2019

WO No: 38591

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



Turning Movement Count - Study Results

FERNBANK RD @ STITTSVILLE MAIN ST

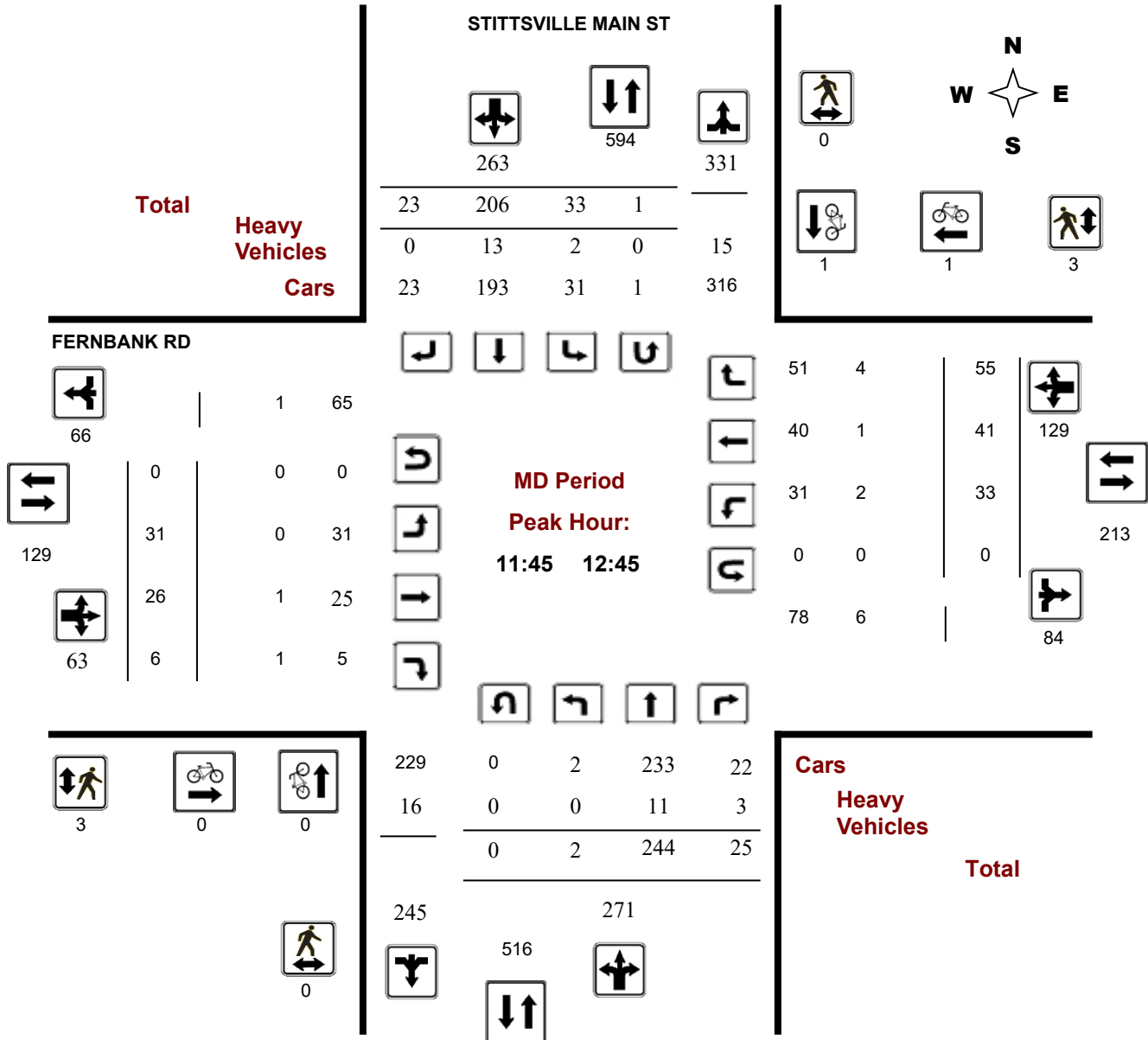
Survey Date: Tuesday, April 30, 2019

WO No: 38591

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



Turning Movement Count - Study Results

FERNBANK RD @ STITTSVILLE MAIN ST

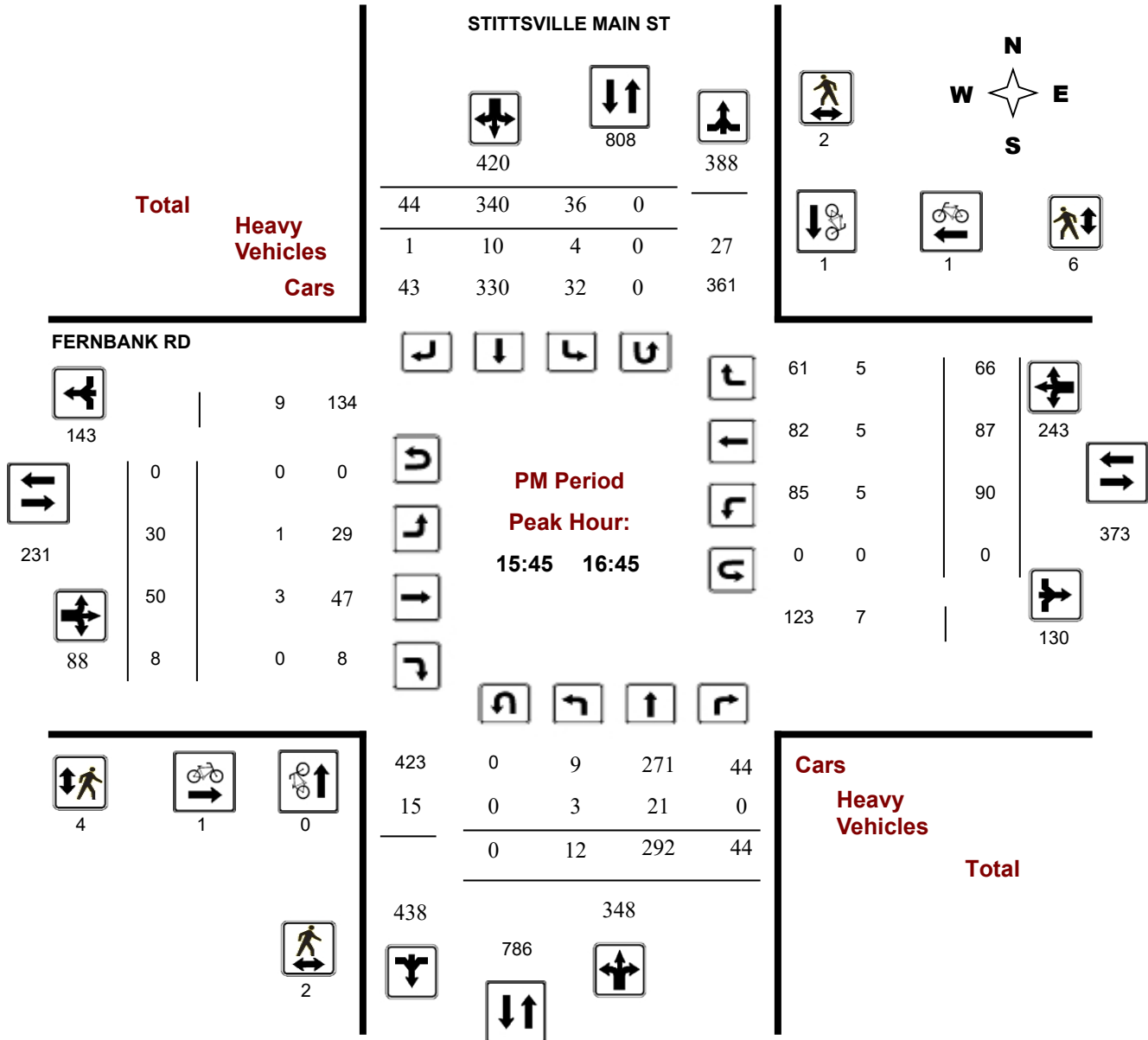
Survey Date: Tuesday, April 30, 2019

WO No: 38591

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FERNBANK RD @ STITTSVILLE MAIN ST

Survey Date: Tuesday, April 30, 2019

WO No: 38591

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Tuesday, April 30, 2019

Total Observed U-Turns

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

AADT Factor

.90

STITTSVILLE MAIN ST

FERNBANK RD

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total
	LT	ST	RT	NB TOT		LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT		LT	ST	RT	WB TOT	STR TOT	
07:00 08:00	12	285	59	356		25	200	17	242	598	48	96	18	162		22	39	36	97	259	857
08:00 09:00	5	276	52	333		18	202	23	243	576	27	79	18	124		32	23	41	96	220	796
09:00 10:00	8	267	33	308		34	181	28	243	551	35	45	6	86		34	37	43	114	200	751
11:30 12:30	2	229	32	263		29	214	22	265	528	32	19	6	57		33	36	57	126	183	711
12:30 13:30	4	228	30	262		43	226	26	295	557	25	33	7	65		25	41	33	99	164	721
15:00 16:00	13	265	39	317		33	262	33	328	645	23	43	9	75		65	65	65	195	270	915
16:00 17:00	8	283	49	340		37	342	39	418	758	26	52	9	87		76	80	53	209	296	1054
17:00 18:00	13	301	42	356		22	341	50	413	769	35	60	13	108		60	83	39	182	290	1059
Sub Total	65	2134	336	2535		241	1968	238	2447	4982	251	427	86	764		347	404	367	1118	1882	6864
U Turns				0					1	1				0					0	0	1
Total	65	2134	336	2535		241	1968	238	2448	4983	251	427	86	764		347	404	367	1118	1882	6865
EQ 12Hr	90	2966	467	3524		335	2736	331	3403	6926	349	594	120	1062		482	562	510	1554	2616	9542

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

1.39

AVG 12Hr	81	2669	420	3172		302	3225	390	3063	6233	314	535	108	956		434	506	459	1399	2354	8588
-----------------	----	------	-----	------	--	-----	------	-----	------	------	-----	-----	-----	-----	--	-----	-----	-----	------	------	------

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.

.90

AVG 24Hr	106	3496	550	4155		396	4225	511	4013	8165	411	701	141	1252		569	663	601	1833	3084	11250
-----------------	-----	------	-----	------	--	-----	------	-----	------	------	-----	-----	-----	------	--	-----	-----	-----	------	------	-------

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

FERNBANK RD @ STITTSVILLE MAIN ST

Survey Date: Tuesday, April 30, 2019

WO No: 38591

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

STITTSVILLE MAIN ST

FERNBANK RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total	
07:00	07:15	1	60	10	71	5	43	3	51	122	12	12	4	28	2	4	8	14	42	164
07:15	07:30	4	69	7	80	7	41	6	54	134	13	25	6	44	7	9	8	24	68	202
07:30	07:45	3	63	22	88	7	55	5	67	155	14	26	8	48	9	12	8	29	77	232
17:15	17:30	1	69	11	81	5	83	13	101	182	4	17	2	23	15	20	12	47	70	252
07:45	08:00	4	93	20	117	6	61	3	70	187	9	33	0	42	4	14	12	30	72	259
08:00	08:15	1	72	16	89	4	54	7	65	154	4	29	6	39	12	7	9	28	67	221
08:15	08:30	1	83	13	97	6	56	3	65	162	11	20	2	33	2	5	14	21	54	216
08:30	08:45	2	57	11	70	4	50	6	60	130	5	17	5	27	8	5	5	18	45	175
08:45	09:00	1	64	12	77	4	42	7	53	130	7	13	5	25	10	6	13	29	54	184
09:00	09:15	5	84	12	101	10	45	7	62	163	12	23	6	41	13	14	18	45	86	249
09:15	09:30	1	66	9	76	9	42	6	57	133	1	6	0	7	7	3	8	18	25	158
09:45	10:00	2	53	9	64	7	48	4	59	123	12	10	0	22	5	9	11	25	47	170
11:30	11:45	0	44	10	54	6	69	3	78	132	9	3	2	14	12	8	11	31	45	177
11:45	12:00	0	64	10	74	6	49	6	61	135	6	6	1	13	8	5	16	29	42	177
12:00	12:15	2	66	5	73	8	49	6	64	137	8	4	2	14	8	7	15	30	44	181
12:15	12:30	0	55	7	62	9	47	7	63	125	9	6	1	16	5	16	15	36	52	177
17:45	18:00	3	72	10	85	6	86	10	102	187	15	10	1	26	17	24	9	50	76	263
12:30	12:45	0	59	3	62	10	61	4	75	137	8	10	2	20	12	13	9	34	54	191
12:45	13:00	2	51	10	63	12	52	13	77	140	4	6	3	13	4	7	5	16	29	169
13:00	13:15	1	56	9	66	9	49	5	63	129	5	10	0	15	7	11	11	29	44	173
13:15	13:30	1	62	8	71	12	64	4	80	151	8	7	2	17	2	10	8	20	37	188
15:00	15:15	2	61	11	74	9	65	7	81	155	4	5	0	9	10	7	8	25	34	189
15:30	15:45	4	69	8	81	8	57	9	74	155	5	15	4	24	12	18	13	43	67	222
15:45	16:00	6	75	9	90	8	71	11	90	180	8	9	1	18	26	25	26	77	95	275
16:00	16:15	3	74	10	87	12	91	8	111	198	9	19	4	32	26	26	12	64	96	294
16:15	16:30	1	69	11	81	8	90	15	113	194	9	11	2	22	17	22	13	52	74	268
16:30	16:45	2	74	14	90	8	88	10	106	196	4	11	1	16	21	14	15	50	66	262
16:45	17:00	2	66	14	82	9	73	6	88	170	4	11	2	17	12	18	13	43	60	230
17:00	17:15	8	76	11	95	7	87	18	112	207	8	20	4	32	11	24	12	47	79	286
15:15	15:30	1	60	11	72	8	69	6	83	155	6	14	4	24	17	15	18	50	74	229
09:30	09:45	0	64	3	67	8	46	11	65	132	10	6	0	16	9	11	6	26	42	174
17:30	17:45	1	84	10	95	4	85	9	98	193	8	13	6	27	17	15	6	38	65	258
Total:		65	2134	336	2535	241	1968	238	2448	4983	251	427	86	764	347	404	367	1118	1882	6,865

Note: U-Turns are included in Totals, cyclist volume is not included in totals. For cyclist volumes refer to Cyclist Volume report.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FERNBANK RD @ STITTSVILLE MAIN ST

Survey Date: Tuesday, April 30, 2019

WO No: 38591

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

STITTSVILLE MAIN ST

FERNBANK RD

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	1	0	1	1
17:15 17:30	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	1	1	1	0	1	2
09:00 09:15	0	0	0	0	0	0	0
09:15 09:30	0	1	1	0	0	0	1
09:45 10:00	1	0	1	0	0	0	1
11:30 11:45	0	0	0	0	0	0	0
11:45 12:00	0	1	1	0	0	0	1
12:00 12:15	0	0	0	0	0	0	0
12:15 12:30	0	0	0	0	1	1	1
17:45 18:00	0	1	1	0	1	1	2
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
15:30 15:45	0	0	0	0	0	0	0
15:45 16:00	0	0	0	0	1	1	1
16:00 16:15	0	1	1	0	0	0	1
16:15 16:30	0	0	0	0	0	0	0
16:30 16:45	0	0	0	1	0	1	1
16:45 17:00	0	0	0	0	0	0	0
17:00 17:15	0	0	0	0	0	0	0
15:15 15:30	1	0	1	0	0	0	1
09:30 09:45	0	0	0	0	0	0	0
17:30 17:45	0	0	0	0	0	0	0
Total	2	5	7	3	3	6	13



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FERNBANK RD @ STITTSVILLE MAIN ST

Survey Date: Tuesday, April 30, 2019

WO No: 38591

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

STITTSVILLE MAIN ST

FERNBANK RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	0	0	0	0	0	0
07:15 07:30	1	0	1	2	5	7	8
07:30 07:45	0	1	1	1	0	1	2
17:15 17:30	0	0	0	0	1	1	1
07:45 08:00	0	0	0	0	0	0	0
08:00 08:15	1	0	1	0	3	3	4
08:15 08:30	1	0	1	0	2	2	3
08:30 08:45	0	0	0	0	0	0	0
08:45 09:00	0	1	1	1	0	1	2
09:00 09:15	1	0	1	1	1	2	3
09:15 09:30	0	0	0	0	1	1	1
09:45 10:00	0	0	0	0	2	2	2
11:30 11:45	0	1	1	3	1	4	5
11:45 12:00	0	0	0	2	1	3	3
12:00 12:15	0	0	0	0	2	2	2
12:15 12:30	0	0	0	1	0	1	1
17:45 18:00	2	1	3	2	0	2	5
12:30 12:45	0	0	0	0	0	0	0
12:45 13:00	0	0	0	1	0	1	1
13:00 13:15	0	0	0	3	5	8	8
13:15 13:30	0	0	0	0	0	0	0
15:00 15:15	0	0	0	2	2	4	4
15:30 15:45	0	0	0	1	0	1	1
15:45 16:00	2	1	3	1	3	4	7
16:00 16:15	0	0	0	0	0	0	0
16:15 16:30	0	1	1	2	2	4	5
16:30 16:45	0	0	0	1	1	2	2
16:45 17:00	0	1	1	4	1	5	6
17:00 17:15	0	1	1	0	3	3	4
15:15 15:30	0	3	3	0	1	1	4
09:30 09:45	0	1	1	2	2	4	5
17:30 17:45	2	0	2	4	0	4	6
Total	10	12	22	34	39	73	95



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FERNBANK RD @ STITTSVILLE MAIN ST

Survey Date: Tuesday, April 30, 2019

WO No: 38591

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

STITTSVILLE MAIN ST

FERNBANK RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	0	3	0	3	1	8	0	9	12	1	1	1	3	0	0	1	1	4	16
07:15 07:30	1	3	0	4	2	10	0	12	16	1	3	0	4	2	2	1	5	9	25
07:30 07:45	1	4	3	8	0	4	0	4	12	0	3	1	4	0	2	2	4	8	20
17:15 17:30	0	1	0	1	1	4	1	6	7	0	1	0	1	0	0	1	1	2	9
07:45 08:00	1	9	0	10	0	3	0	3	13	0	0	0	0	0	2	1	3	3	16
08:00 08:15	0	3	0	3	1	3	1	5	8	0	0	0	0	1	0	1	2	2	10
08:15 08:30	0	4	0	4	0	6	0	6	10	1	3	0	4	0	0	1	1	5	15
08:30 08:45	0	1	2	3	1	3	0	4	7	1	0	1	2	0	0	1	1	3	10
08:45 09:00	0	3	0	3	1	4	1	6	9	0	1	0	1	0	1	2	3	4	13
09:00 09:15	0	12	0	12	1	1	1	3	15	1	3	0	4	1	2	0	3	7	22
09:15 09:30	0	4	0	4	1	2	1	4	8	0	0	0	0	0	0	1	1	1	9
09:45 10:00	0	3	1	4	0	2	0	2	6	0	1	0	1	0	1	1	2	3	9
11:30 11:45	0	2	1	3	1	5	0	6	9	0	0	0	0	2	1	0	3	3	12
11:45 12:00	0	1	1	2	1	4	0	5	7	0	0	0	0	1	0	1	2	2	9
12:00 12:15	0	1	0	1	0	3	0	3	4	0	1	0	1	0	0	2	2	3	7
12:15 12:30	0	1	2	3	0	5	0	5	8	0	0	0	0	0	0	1	1	1	9
17:45 18:00	0	0	0	0	1	1	0	2	2	0	0	0	0	0	0	1	1	1	3
12:30 12:45	0	8	0	8	1	1	0	2	10	0	0	1	1	1	1	0	2	3	13
12:45 13:00	0	2	0	2	1	3	0	4	6	0	0	0	0	1	0	0	1	1	7
13:00 13:15	0	4	2	6	1	4	0	5	11	0	0	0	0	0	1	1	2	2	13
13:15 13:30	0	6	1	7	2	5	0	7	14	0	0	1	1	0	1	1	2	3	17
15:00 15:15	0	2	1	3	0	2	0	2	5	0	0	0	0	0	0	0	0	0	5
15:30 15:45	0	6	1	7	3	3	0	6	13	0	0	1	1	0	1	0	1	2	15
15:45 16:00	1	9	0	10	0	3	0	3	13	0	0	0	0	4	2	4	10	10	23
16:00 16:15	1	2	0	3	2	4	1	7	10	1	1	0	2	1	1	0	2	4	14
16:15 16:30	0	6	0	6	1	2	0	3	9	0	0	0	0	0	1	1	2	2	11
16:30 16:45	1	4	0	5	1	1	0	2	7	0	2	0	2	0	1	0	1	3	10
16:45 17:00	0	4	0	4	1	2	0	3	7	0	0	0	0	0	0	1	1	1	8
17:00 17:15	0	2	0	2	1	4	0	5	7	0	2	0	2	0	2	0	2	4	11
15:15 15:30	0	5	1	6	1	0	0	1	7	0	1	1	2	1	2	2	5	7	14
09:30 09:45	0	0	0	0	1	4	1	6	6	1	0	0	1	0	1	0	1	2	8
17:30 17:45	0	1	0	1	2	1	0	3	4	0	2	0	2	0	0	0	0	2	6
Total: None	6	116	16	138	30	107	7	144	282	7	25	7	39	15	25	28	68	107	389

Transportation Services - Traffic Services

Turning Movement Count - Study Results

FERNBANK RD @ STITTSVILLE MAIN ST

Survey Date: Tuesday, April 30, 2019

WO No: 38591

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

STITTSVILLE MAIN ST

FERNBANK RD

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

Turning Movement Count - Study Results

STITTSVILLE MAIN ST @ WEST RIDGE DR/PARADE DR

Survey Date: Tuesday, July 30, 2024

Start Time: 07:00

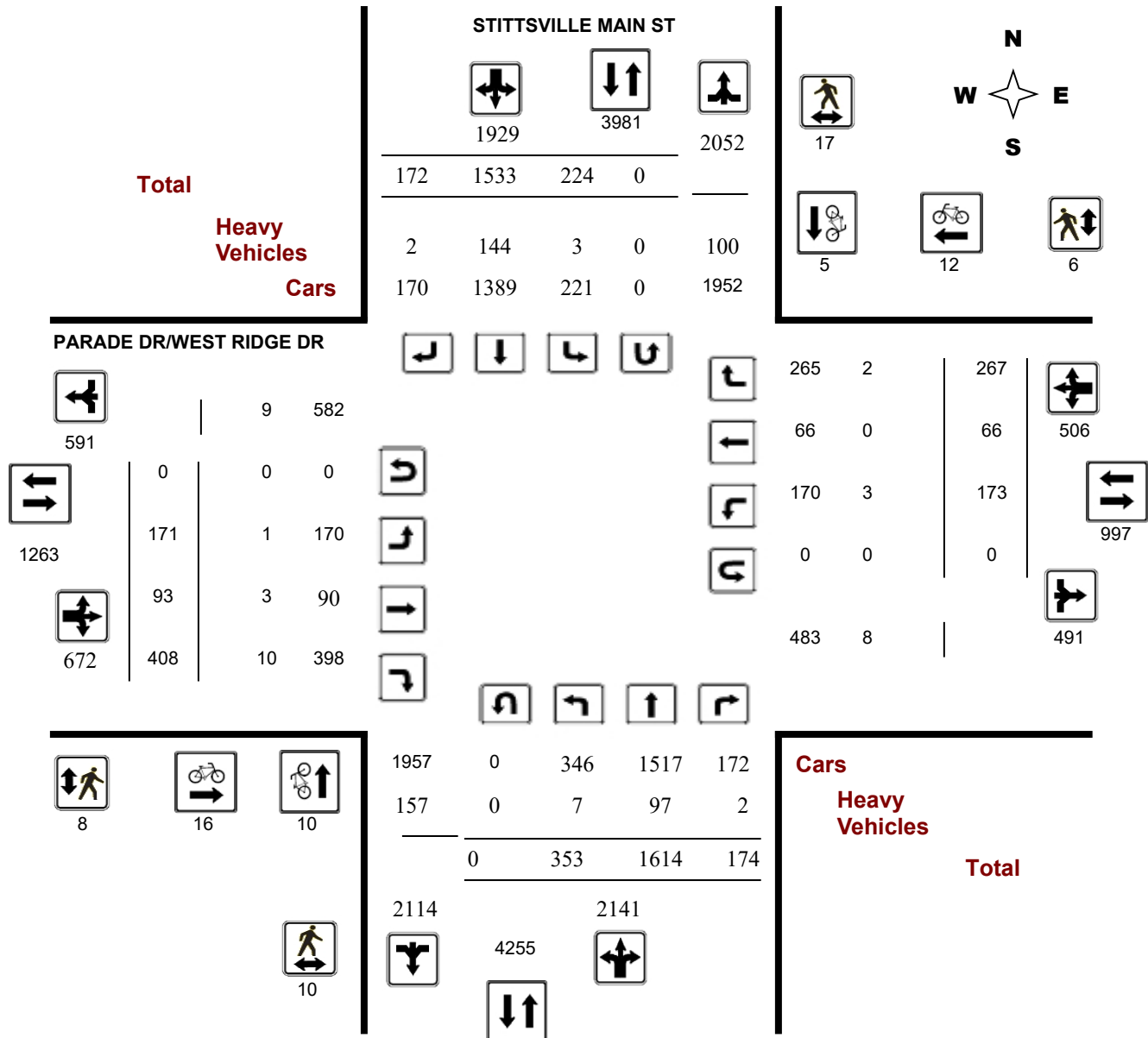
WO No:

41806

Device:

Miovision

Full Study Diagram



Turning Movement Count - Study Results

STITTSVILLE MAIN ST @ WEST RIDGE DR/PARADE DR

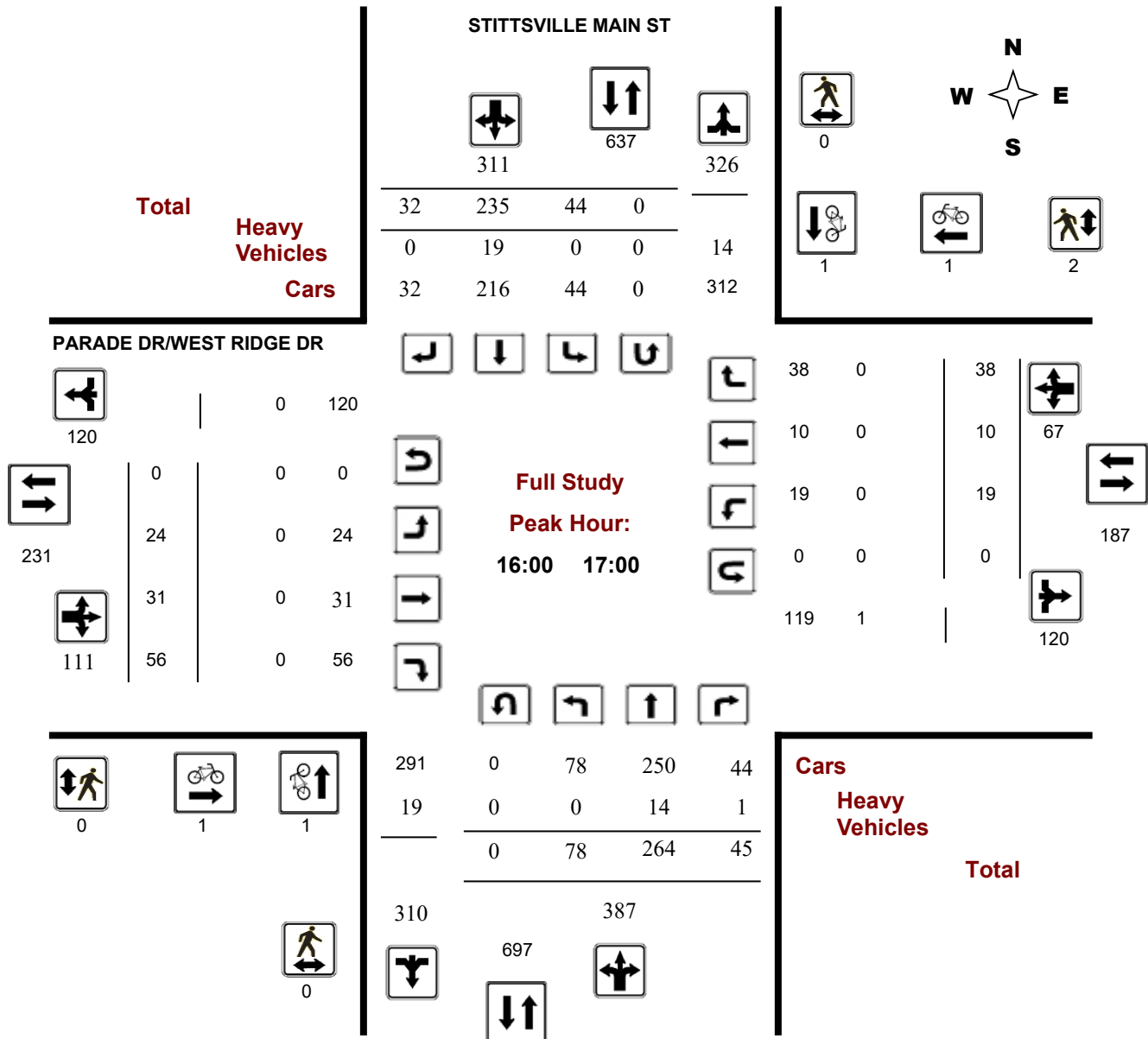
Survey Date: Tuesday, July 30, 2024

WO No: 41806

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Study Results

STITTSVILLE MAIN ST @ WEST RIDGE DR/PARADE DR

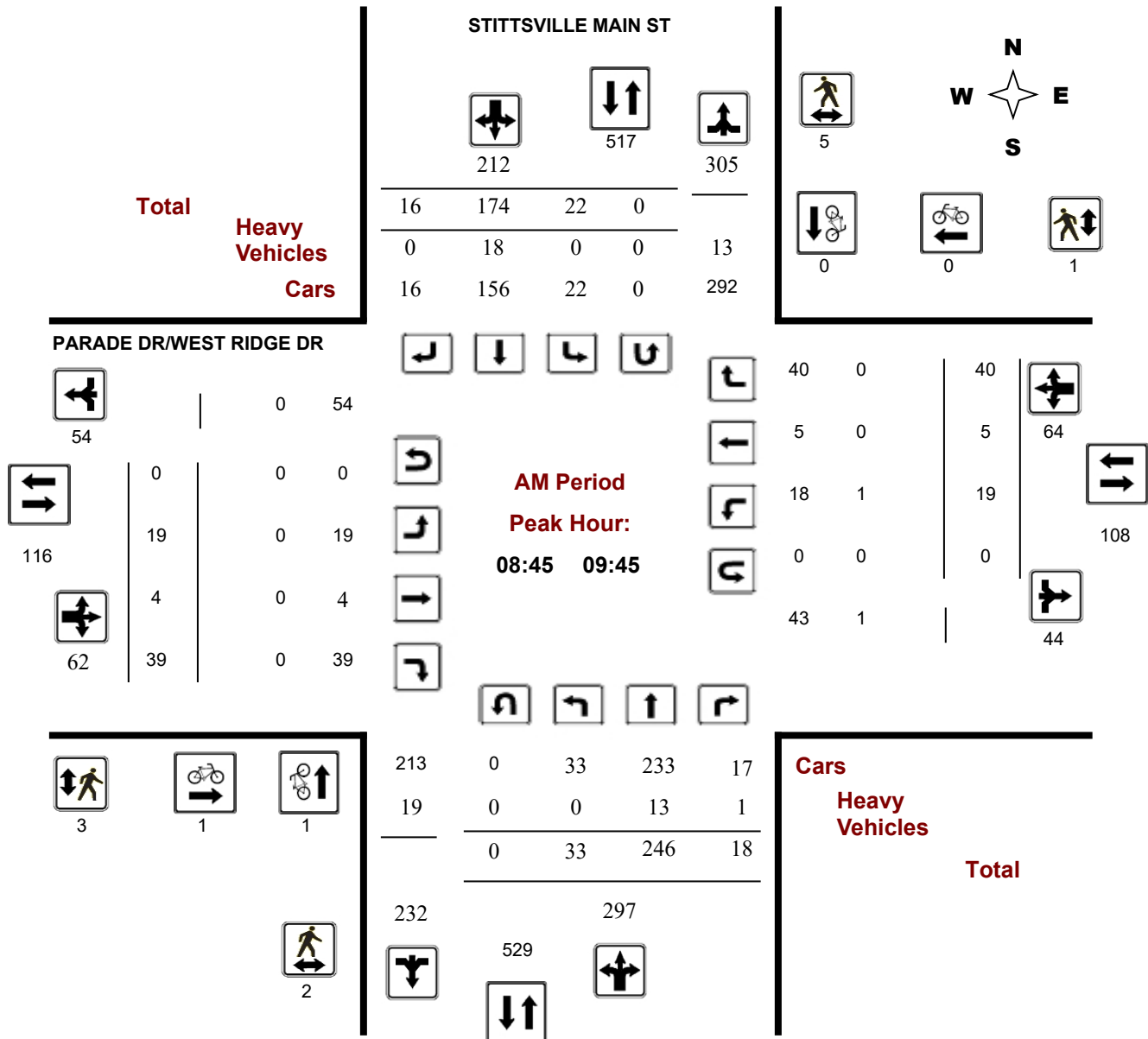
Survey Date: Tuesday, July 30, 2024

WO No: 41806

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



Turning Movement Count - Study Results

STITTSVILLE MAIN ST @ WEST RIDGE DR/PARADE DR

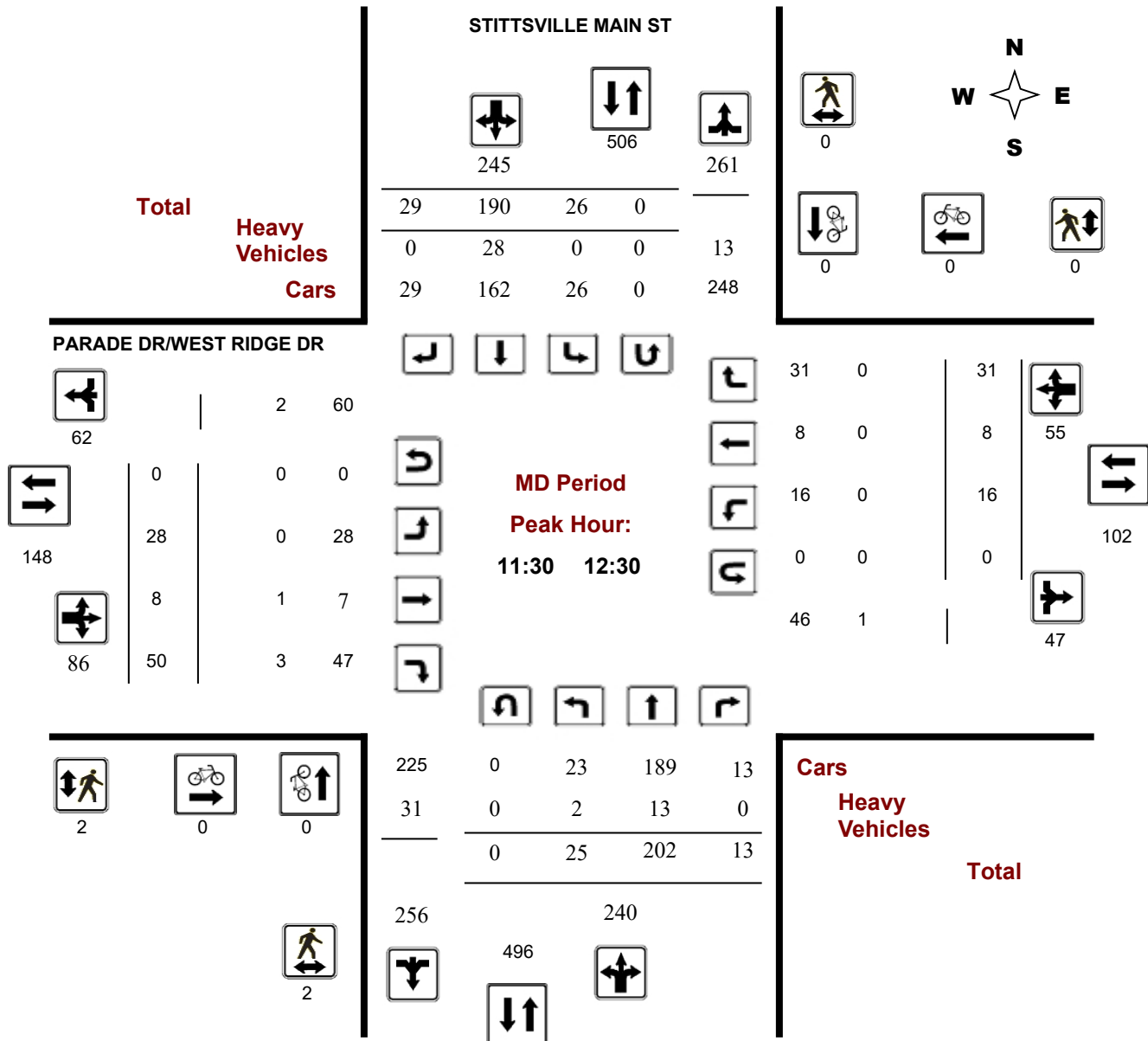
Survey Date: Tuesday, July 30, 2024

WO No: 41806

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



Turning Movement Count - Study Results

STITTSVILLE MAIN ST @ WEST RIDGE DR/PARADE DR

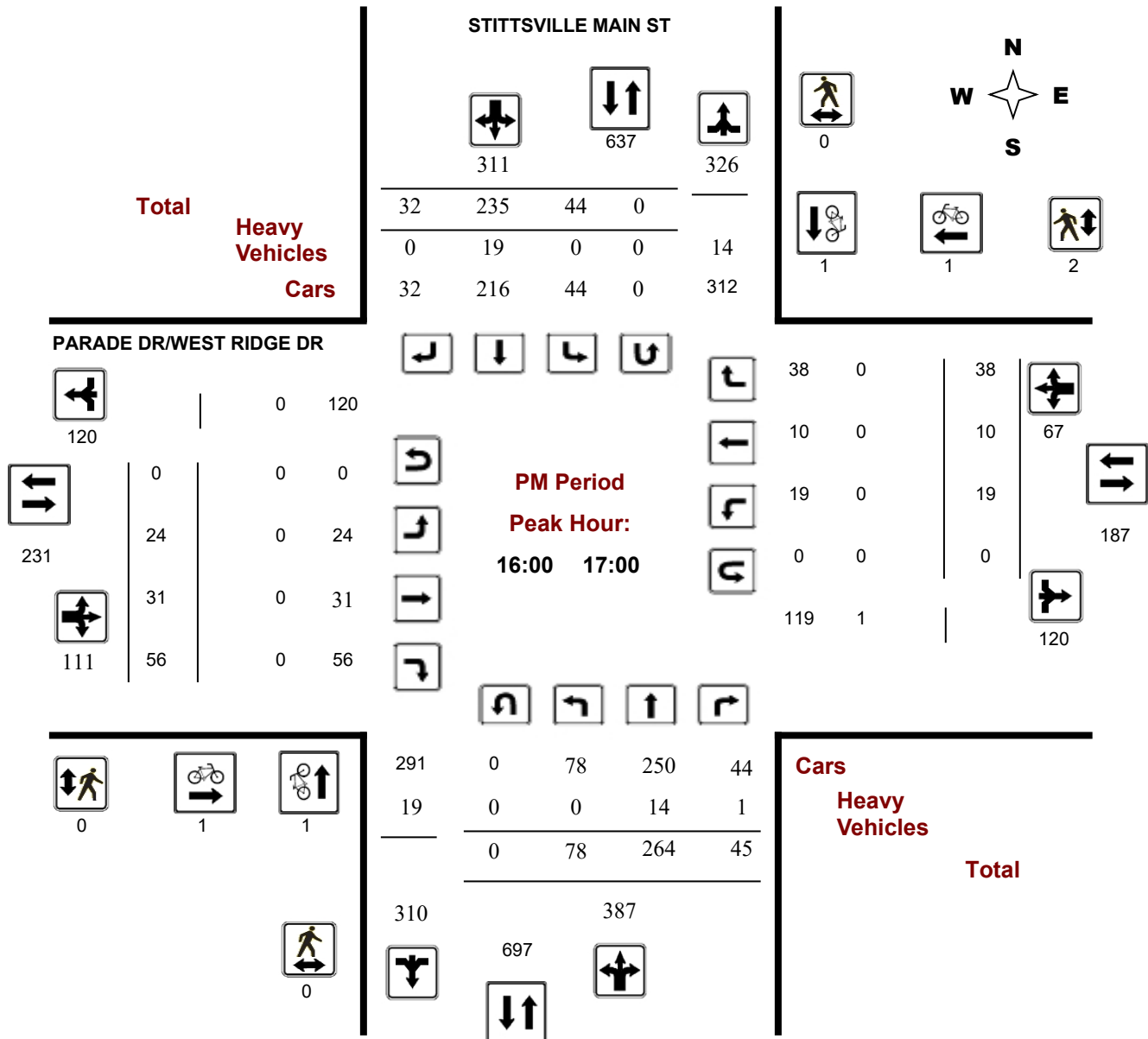
Survey Date: Tuesday, July 30, 2024

WO No: 41806

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Study Results

STITTSVILLE MAIN ST @ WEST RIDGE DR/PARADE DR

Survey Date: Tuesday, July 30, 2024

WO No: 41806

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Tuesday, July 30, 2024

Total Observed U-Turns

Northbound: 0 Southbound: 0
Eastbound: 0 Westbound: 0

AADT Factor

.90

STITTSVILLE MAIN ST

PARADE DR/WEST RIDGE DR

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total
	LT	ST	RT	NB TOT		LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT		LT	ST	RT	WB TOT	STR TOT	
07:00 08:00	20	143	5	168		4	145	3	152	320	21	4	55	80		27	6	29	62	142	462
08:00 09:00	28	205	10	243		18	158	9	185	428	24	6	52	82		31	3	49	83	165	593
09:00 10:00	37	239	16	292		27	169	16	212	504	16	3	42	61		12	4	29	45	106	610
11:30 12:30	25	202	13	240		26	190	29	245	485	28	8	50	86		16	8	31	55	141	626
12:30 13:30	30	194	23	247		31	206	20	257	504	17	12	39	68		20	10	22	52	120	624
15:00 16:00	59	185	33	277		29	243	24	296	573	17	13	53	83		24	10	35	69	152	725
16:00 17:00	78	264	45	387		44	235	32	311	698	24	31	56	111		19	10	38	67	178	876
17:00 18:00	76	182	29	287		45	187	39	271	558	24	16	61	101		24	15	34	73	174	732
Sub Total	353	1614	174	2141		224	1533	172	1929	4070	171	93	408	672		173	66	267	506	1178	5248
U Turns				0					0	0				0					0	0	0
Total	353	1614	174	2141		224	1533	172	1929	4070	171	93	408	672		173	66	267	506	1178	5248
EQ 12Hr	491	2243	242	2976		311	2131	239	2681	5657	238	129	567	934		240	92	371	703	1637	7295

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

1.39

AVG 12Hr	442	2019	218	2678	280	2512	282	2413	5091	214	116	510	841	216	83	334	633	1473	6566
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.											.90								

AVG 24Hr	579	2645	286	3508		367	3291	369	3161	6669	280	152	668	1102		283	109	438	829	1930	8601
----------	-----	------	-----	------	--	-----	------	-----	------	------	-----	-----	-----	------	--	-----	-----	-----	-----	------	------

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

STITTSVILLE MAIN ST @ WEST RIDGE DR/PARADE DR

Survey Date: Tuesday, July 30, 2024

WO No: 41806

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

STITTSVILLE MAIN ST

PARADE DR/WEST RIDGE 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	2	31	1	34	0	28	0	28	62	4	0	16	20	8	0	5	13	33	95
07:15	07:30	5	27	1	33	0	34	1	35	68	2	0	6	8	6	4	5	15	23	91
07:30	07:45	5	46	1	52	1	42	1	44	96	7	2	17	26	7	0	8	15	41	137
07:45	08:00	8	39	2	49	3	41	1	45	94	8	2	16	26	6	2	11	19	45	139
08:00	08:15	7	38	0	45	7	35	5	47	92	2	1	18	21	2	0	13	15	36	128
08:15	08:30	6	52	4	62	2	38	0	40	102	8	1	14	23	11	0	14	25	48	150
17:45	18:00	14	45	2	61	5	40	7	52	113	8	2	14	24	7	3	8	18	42	155
11:30	11:45	2	60	3	65	6	41	8	55	120	9	2	14	25	6	2	8	16	41	161
08:30	08:45	7	52	1	60	6	43	1	50	110	4	2	12	18	11	2	8	21	39	149
08:45	09:00	8	63	5	76	3	42	3	48	124	10	2	8	20	7	1	14	22	42	166
09:00	09:15	9	51	3	63	7	38	7	52	115	4	2	9	15	3	1	5	9	24	139
09:15	09:30	10	71	7	88	5	37	1	43	131	4	0	14	18	4	1	10	15	33	164
09:30	09:45	6	61	3	70	7	57	5	69	139	1	0	8	9	5	2	11	18	27	166
09:45	10:00	12	56	3	71	8	37	3	48	119	7	1	11	19	0	0	3	3	22	141
11:45	12:00	6	59	3	68	6	45	8	59	127	10	2	9	21	3	3	11	17	38	165
12:00	12:15	11	41	3	55	6	53	7	66	121	7	1	15	23	4	1	8	13	36	157
12:15	12:30	6	42	4	52	8	51	6	65	117	2	3	12	17	3	2	4	9	26	143
12:45	13:00	9	54	8	71	9	46	6	61	132	7	2	13	22	5	1	9	15	37	169
13:00	13:15	4	51	4	59	7	48	5	60	119	1	3	7	11	4	2	4	10	21	140
13:15	13:30	9	51	3	63	7	60	5	72	135	5	3	8	16	6	3	4	13	29	164
15:00	15:15	13	52	2	67	6	58	6	70	137	3	0	14	17	9	1	10	20	37	174
15:15	15:30	18	40	8	66	9	64	7	80	146	4	8	16	28	4	2	11	17	45	191
15:30	15:45	12	43	10	65	10	62	9	81	146	5	1	13	19	6	2	8	16	35	181
15:45	16:00	16	50	13	79	4	59	2	65	144	5	4	10	19	5	5	6	16	35	179
16:00	16:15	14	75	11	100	12	54	2	68	168	5	6	14	25	1	1	11	13	38	206
16:15	16:30	22	69	12	103	14	63	10	87	190	7	9	19	35	6	3	8	17	52	242
16:30	16:45	22	74	9	105	11	60	12	83	188	5	9	12	26	9	3	14	26	52	240
16:45	17:00	20	46	13	79	7	58	8	73	152	7	7	11	25	3	3	5	11	36	188
17:00	17:15	23	40	15	78	12	58	8	78	156	4	5	20	29	6	4	7	17	46	202
17:15	17:30	14	56	8	78	18	50	14	82	160	3	4	11	18	7	4	12	23	41	201
17:30	17:45	25	41	4	70	10	39	10	59	129	9	5	16	30	4	4	7	15	45	174
12:30	12:45	8	38	8	54	8	52	4	64	118	4	4	11	19	5	4	5	14	33	151
Total:		353	1614	174	2141	224	1533	172	1929	4070	171	93	408	672	173	66	267	506	1178	5,248

Note: U-Turns are included in Totals, cyclist volume is not included in totals. For cyclist volumes refer to Cyclist Volume report.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

STITTSVILLE MAIN ST @ WEST RIDGE DR/PARADE DR

Survey Date: Tuesday, July 30, 2024

WO No: 41806

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

STITTSVILLE MAIN ST

PARADE DR/WEST RIDGE DR

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	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
17:45	18:00	0	0	0	1	2	3	3
11:30	11:45	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	1	0	1	1
09:15	09:30	0	0	0	0	0	0	0
09:30	09:45	0	0	0	0	0	0	0
09:45	10:00	1	0	1	5	1	6	7
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
12:45	13:00	0	0	0	0	0	0	0
13:00	13:15	0	0	0	0	2	2	2
13:15	13:30	2	1	3	0	0	0	3
15:00	15:15	1	0	1	1	0	1	2
15:15	15:30	0	0	0	0	0	0	0
15:30	15:45	0	0	0	2	0	2	2
15:45	16:00	0	2	2	0	0	0	2
16:00	16:15	1	1	2	0	0	0	2
16:15	16:30	0	0	0	1	0	1	1
16:30	16:45	0	0	0	0	1	1	1
16:45	17:00	0	0	0	0	0	0	0
17:00	17:15	3	0	3	2	4	6	9
17:15	17:30	0	0	0	0	0	0	0
17:30	17:45	0	0	0	3	2	5	5
12:30	12:45	1	0	1	0	0	0	1
Total		10	5	15	16	12	28	43



Transportation Services - Traffic Services

Turning Movement Count - Study Results

STITTSVILLE MAIN ST @ WEST RIDGE DR/PARADE DR

Survey Date: Tuesday, July 30, 2024

WO No: 41806

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

STITTSVILLE MAIN ST

PARADE DR/WEST RIDGE 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	1	4	5	0	0	0	5
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	1	1	0	0	0	1
08:00 08:15	0	1	1	0	0	0	1
08:15 08:30	0	5	5	0	0	0	5
17:45 18:00	1	0	1	0	0	0	1
11:30 11:45	1	0	1	0	0	0	1
08:30 08:45	1	1	2	0	0	0	2
08:45 09:00	0	2	2	1	0	1	3
09:00 09:15	0	2	2	0	1	1	3
09:15 09:30	1	0	1	2	0	2	3
09:30 09:45	1	1	2	0	0	0	2
09:45 10:00	1	0	1	1	0	1	2
11:45 12:00	0	0	0	0	0	0	0
12:00 12:15	0	0	0	1	0	1	1
12:15 12:30	1	0	1	1	0	1	2
12:45 13:00	0	0	0	0	0	0	0
13:00 13:15	0	0	0	0	2	2	2
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	1	1	1
16:15 16:30	0	0	0	0	1	1	1
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	1	0	1	1
17:30 17:45	1	0	1	0	1	1	2
12:30 12:45	0	0	0	1	0	1	1
Total	10	17	27	8	6	14	41



Transportation Services - Traffic Services

Turning Movement Count - Study Results

STITTSVILLE MAIN ST @ WEST RIDGE DR/PARADE DR

Survey Date: Tuesday, July 30, 2024

WO No: 41806

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

STITTSVILLE MAIN ST

PARADE DR/WEST RIDGE 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	1	3	0	4	0	2	0	2	6	0	0	0	0	0	0	0	0	0	6
07:15 07:30	0	3	0	3	0	6	0	6	9	0	0	0	0	0	0	0	0	0	9
07:30 07:45	0	6	0	6	0	12	0	12	18	0	0	0	0	0	0	0	0	0	18
07:45 08:00	1	2	0	3	1	4	0	5	8	0	0	0	0	0	0	0	0	0	8
08:00 08:15	1	6	0	7	1	5	0	6	13	0	0	1	1	0	0	1	1	2	15
08:15 08:30	0	3	0	3	0	4	0	4	7	0	0	0	0	0	0	0	0	0	7
17:45 18:00	0	0	0	0	0	1	0	1	1	0	0	1	1	0	0	0	0	1	2
11:30 11:45	0	3	0	3	0	8	0	8	11	0	0	2	2	0	0	0	0	2	13
08:30 08:45	0	3	0	3	0	8	0	8	11	0	1	1	2	0	0	0	0	2	13
08:45 09:00	0	3	0	3	0	2	0	2	5	0	0	0	0	0	0	0	0	0	5
09:00 09:15	0	3	1	4	0	3	0	3	7	0	0	0	0	1	0	0	1	1	8
09:15 09:30	0	3	0	3	0	4	0	4	7	0	0	0	0	0	0	0	0	0	7
09:30 09:45	0	4	0	4	0	9	0	9	13	0	0	0	0	0	0	0	0	0	13
09:45 10:00	0	1	0	1	0	5	0	5	6	0	0	0	0	0	0	0	0	0	6
11:45 12:00	1	4	0	5	0	6	0	6	11	0	0	0	0	0	0	0	0	0	11
12:00 12:15	1	3	0	4	0	8	0	8	12	0	1	0	1	0	0	0	0	1	13
12:15 12:30	0	3	0	3	0	6	0	6	9	0	0	1	1	0	0	0	0	1	10
12:45 13:00	0	5	0	5	0	2	0	2	7	0	0	0	0	1	0	0	1	1	8
13:00 13:15	0	5	0	5	0	3	0	3	8	0	0	0	0	0	0	0	0	0	8
13:15 13:30	0	3	0	3	0	0	1	1	4	0	0	1	1	0	0	0	0	1	5
15:00 15:15	0	2	0	2	0	4	0	4	6	0	0	0	0	0	0	1	1	1	7
15:15 15:30	1	3	0	4	0	7	1	8	12	0	1	1	2	0	0	0	0	2	14
15:30 15:45	0	4	0	4	0	4	0	4	8	0	0	0	0	0	0	0	0	0	8
15:45 16:00	1	1	0	2	0	5	0	5	7	0	0	1	1	0	0	0	0	1	8
16:00 16:15	0	3	1	4	0	7	0	7	11	0	0	0	0	0	0	0	0	0	11
16:15 16:30	0	3	0	3	0	6	0	6	9	0	0	0	0	0	0	0	0	0	9
16:30 16:45	0	6	0	6	0	4	0	4	10	0	0	0	0	0	0	0	0	0	10
16:45 17:00	0	2	0	2	0	2	0	2	4	0	0	0	0	0	0	0	0	0	4
17:00 17:15	0	2	0	2	0	2	0	2	4	0	0	1	1	0	0	0	0	1	5
17:15 17:30	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	1
17:30 17:45	0	2	0	2	0	0	0	0	2	1	0	0	1	0	0	0	0	1	3
12:30 12:45	0	3	0	3	1	4	0	5	8	0	0	0	0	1	0	0	1	1	9
Total: None	7	97	2	106	3	144	2	149	255	1	3	10	14	3	0	2	5	19	274

Transportation Services - Traffic Services

Turning Movement Count - Study Results

STITTSVILLE MAIN ST @ WEST RIDGE DR/PARADE DR

Survey Date: Tuesday, July 30, 2024

WO No: 41806

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

		STITTSVILLE MAIN ST		PARADE DR/WEST RIDGE DR		
Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	0	0
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	0	0
08:15	08:30	0	0	0	0	0
17:45	18:00	0	0	0	0	0
11:30	11:45	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
09:45	10:00	0	0	0	0	0
11:45	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
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	0	0	0
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	0	0	0
16:45	17:00	0	0	0	0	0
17:00	17:15	0	0	0	0	0
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
12:30	12:45	0	0	0	0	0
Total		0	0	0	0	0

Turning Movement Count - Study Results

FERNBANK RD @ ROBERT GRANT AVE

Survey Date: Wednesday, June 25, 2025

Start Time: 07:00

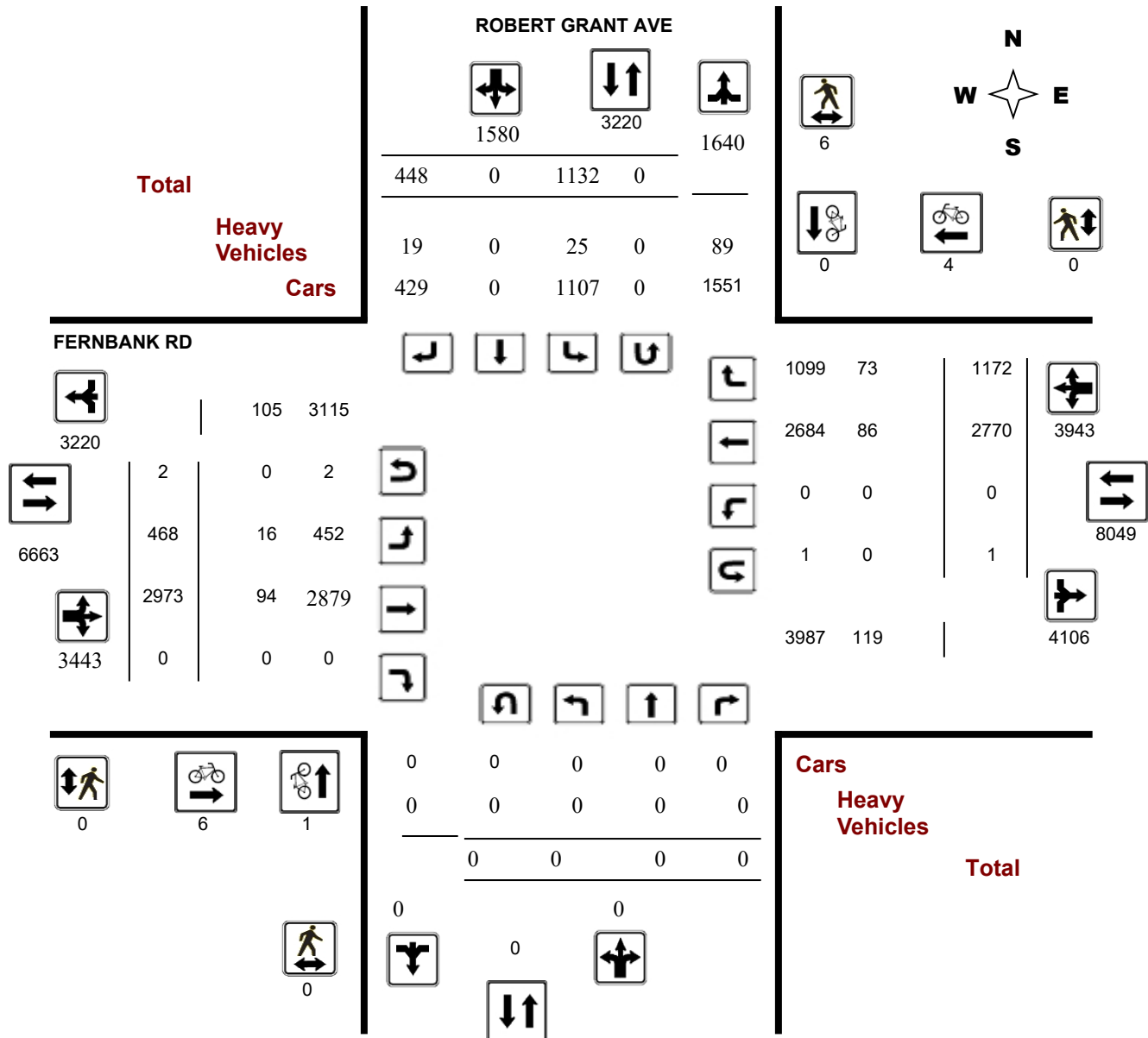
WO No:

42851

Device:

Miovision

Full Study Diagram



Turning Movement Count - Study Results

FERNBANK RD @ ROBERT GRANT AVE

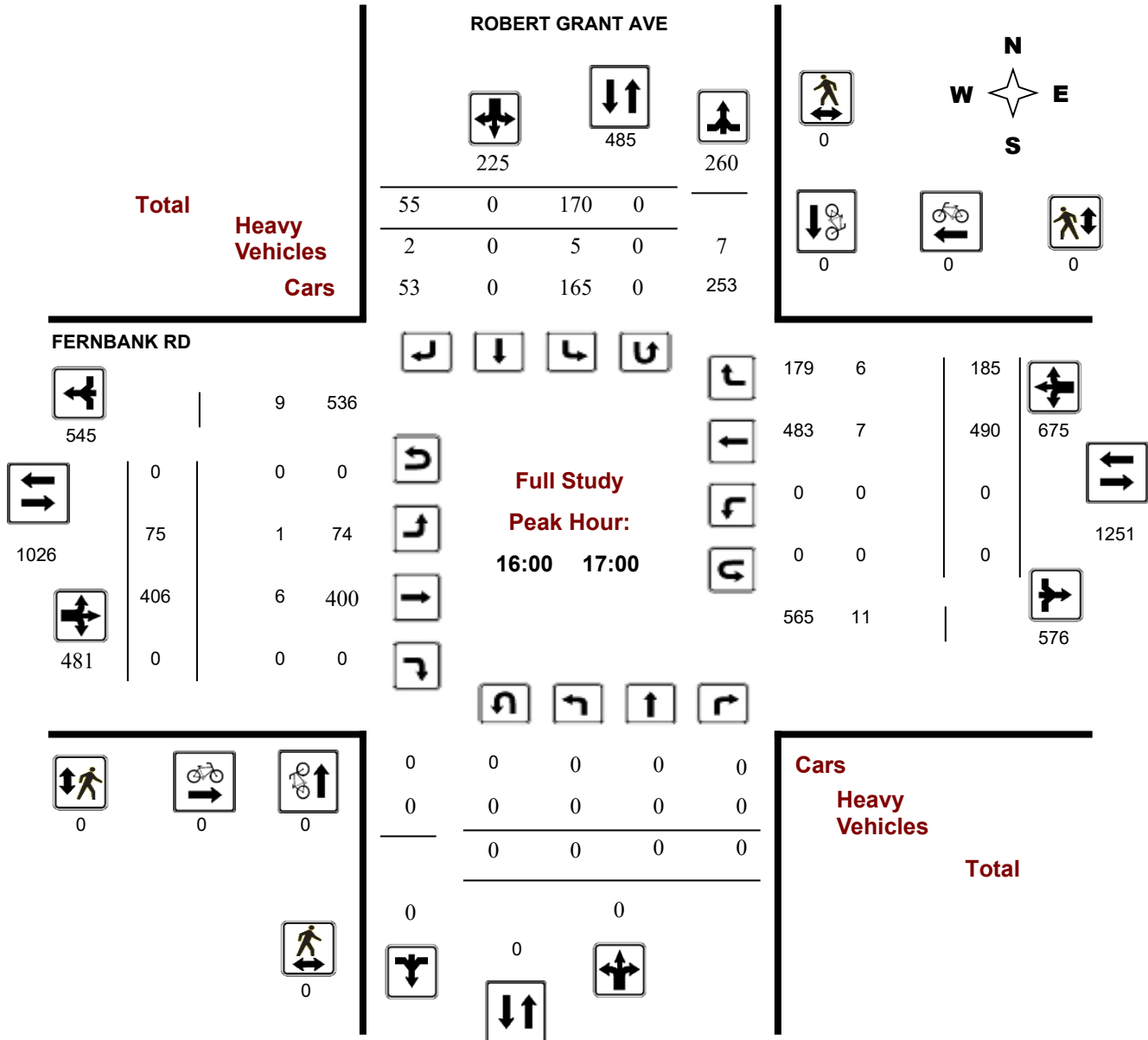
Survey Date: Wednesday, June 25, 2025

WO No: 42851

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Study Results

FERNBANK RD @ ROBERT GRANT AVE

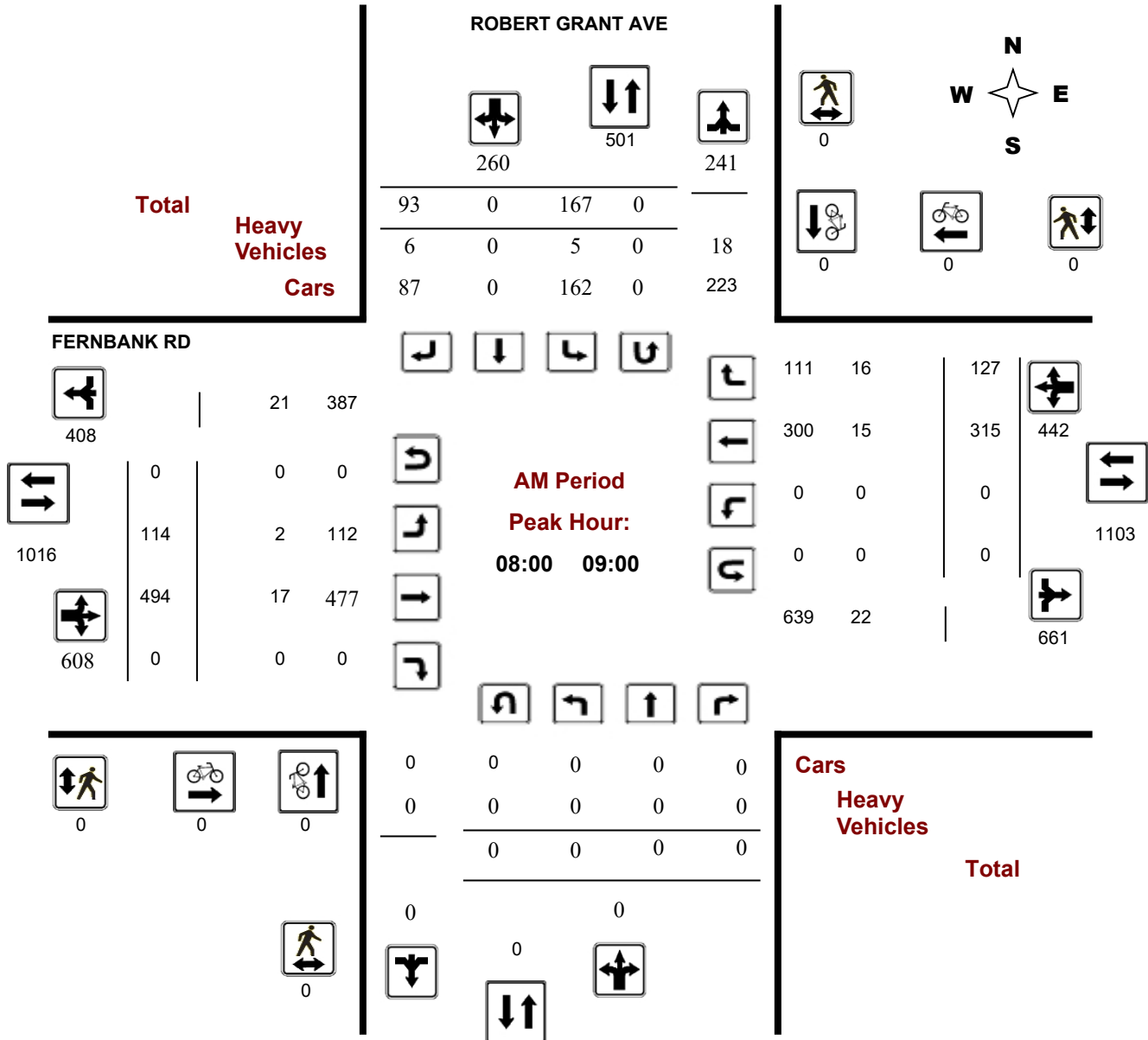
Survey Date: Wednesday, June 25, 2025

WO No: 42851

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



Turning Movement Count - Study Results

FERNBANK RD @ ROBERT GRANT AVE

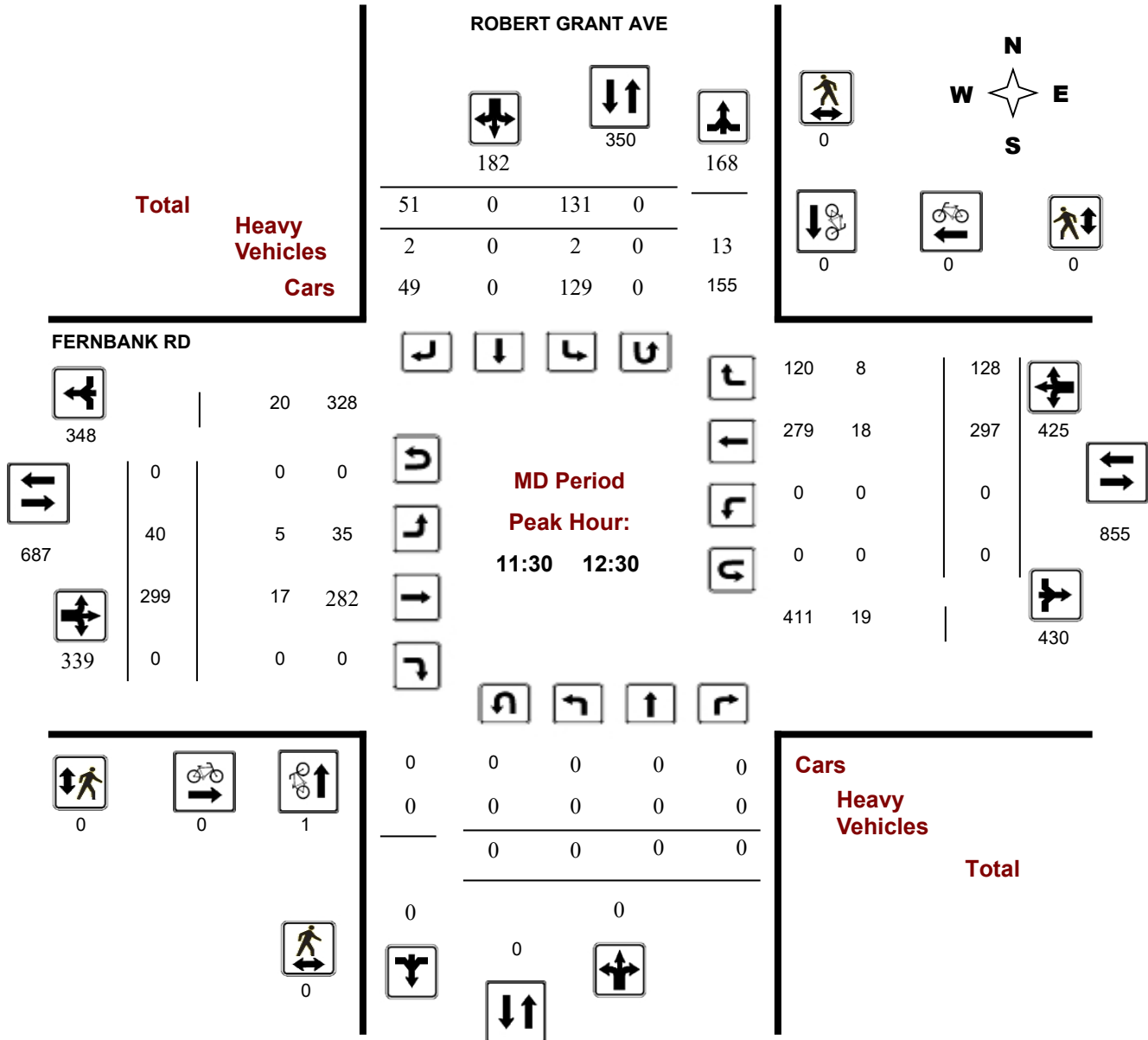
Survey Date: Wednesday, June 25, 2025

WO No: 42851

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



Turning Movement Count - Study Results

FERNBANK RD @ ROBERT GRANT AVE

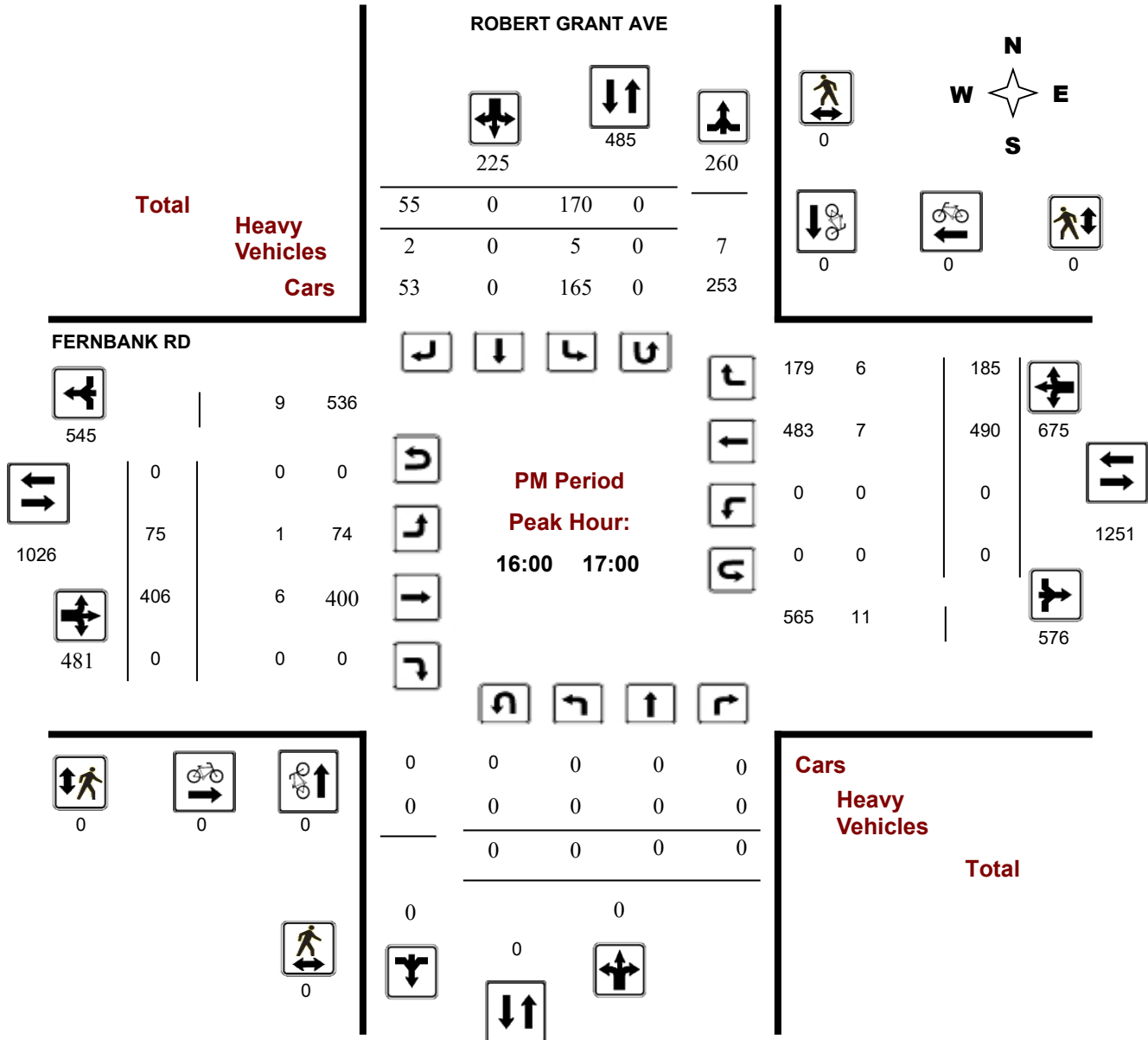
Survey Date: Wednesday, June 25, 2025

WO No: 42851

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FERNBANK RD @ ROBERT GRANT AVE

Survey Date: Wednesday, June 25, 2025

WO No: 42851

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, June 25, 2025

Total Observed U-Turns

AADT Factor

Northbound: 0 Southbound: 0

.90

Eastbound: 2 Westbound: 1

ROBERT GRANT AVE

FERNBANK RD

Period		Northbound				Southbound				STR TOT	Eastbound				EB TOT	Westbound				WB TOT	STR TOT	Grand Total
		LT	ST	RT	NB TOT	LT	ST	RT	SB TOT		LT	ST	RT	LT		ST	RT					
07:00	08:00	0	0	0	0	130	0	45	175	175	38	385	0	423	0	175	143	318	741	916		
08:00	09:00	0	0	0	0	167	0	93	260	260	114	494	0	608	0	315	127	442	1050	1310		
09:00	10:00	0	0	0	0	116	0	33	149	149	84	389	0	473	0	259	131	390	863	1012		
11:30	12:30	0	0	0	0	131	0	51	182	182	40	299	0	339	0	297	128	425	764	946		
12:30	13:30	0	0	0	0	108	0	35	143	143	22	327	0	349	0	279	123	402	751	894		
15:00	16:00	0	0	0	0	155	0	71	226	226	35	334	0	369	0	470	149	619	988	1214		
16:00	17:00	0	0	0	0	170	0	55	225	225	75	406	0	481	0	490	185	675	1156	1381		
17:00	18:00	0	0	0	0	155	0	65	220	220	60	339	0	399	0	485	186	671	1070	1290		
Sub Total		0	0	0	0	1132	0	448	1580	1580	468	2973	0	3441	0	2770	1172	3942	7383	8963		
U Turns					0				0	0				2				1	3	3		
Total		0	0	0	0	1132	0	448	1580	1580	468	2973	0	3443	0	2770	1172	3943	7386	8966		
EQ 12Hr		0	0	0	0	1573	0	623	2196	2196	651	4132	0	4786	0	3850	1629	5481	10267	12463		

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

1.39

AVG 12Hr	0	0	0	0	1416	0	734	1976	1976	586	3719	0	4307	0	3465	1466	4933	9240	11217
-----------------	---	---	---	---	------	---	-----	------	------	-----	------	---	------	---	------	------	------	------	-------

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.

.90

AVG 24Hr	0	0	0	0	1855	0	962	2589	2589	768	4872	0	5642	0	4539	1920	6462	12104	14694
-----------------	---	---	---	---	------	---	-----	------	------	-----	------	---	------	---	------	------	------	-------	-------

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

FERNBANK RD @ ROBERT GRANT AVE

Survey Date: Wednesday, June 25, 2025

WO No: 42851

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

ROBERT GRANT AVE

FERNBANK RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	0	0	0	0	19	0	3	22	22	5	84	0	89	0	32	29	61	150	172
07:15 07:30	0	0	0	0	33	0	8	41	41	9	92	0	102	0	44	34	78	180	221
07:30 07:45	0	0	0	0	35	0	14	49	49	10	106	0	116	0	49	43	92	208	257
16:30 16:45	0	0	0	0	43	0	14	57	57	21	95	0	116	0	119	57	176	292	349
17:45 18:00	0	0	0	0	31	0	13	44	44	18	85	0	103	0	118	32	150	253	297
07:45 08:00	0	0	0	0	43	0	20	63	63	14	103	0	117	0	50	37	87	204	267
08:00 08:15	0	0	0	0	41	0	17	58	58	26	142	0	168	0	69	37	106	274	332
08:15 08:30	0	0	0	0	45	0	29	74	74	32	127	0	159	0	77	29	106	265	339
08:30 08:45	0	0	0	0	44	0	17	61	61	26	127	0	153	0	82	30	112	265	326
08:45 09:00	0	0	0	0	37	0	30	67	67	30	98	0	128	0	87	31	118	246	313
09:00 09:15	0	0	0	0	39	0	12	51	51	34	112	0	146	0	80	44	124	270	321
09:15 09:30	0	0	0	0	28	0	9	37	37	32	113	0	145	0	69	35	104	249	286
09:30 09:45	0	0	0	0	22	0	8	30	30	11	82	0	93	0	55	24	79	172	202
09:45 10:00	0	0	0	0	27	0	4	31	31	7	82	0	89	0	55	28	83	172	203
11:30 11:45	0	0	0	0	27	0	20	47	47	13	69	0	82	0	76	35	111	193	240
11:45 12:00	0	0	0	0	35	0	13	48	48	10	68	0	78	0	74	28	102	180	228
12:00 12:15	0	0	0	0	37	0	8	45	45	10	81	0	91	0	57	32	89	180	225
12:15 12:30	0	0	0	0	32	0	10	42	42	7	81	0	88	0	90	33	123	211	253
12:30 12:45	0	0	0	0	26	0	11	37	37	5	84	0	89	0	72	33	105	194	231
12:45 13:00	0	0	0	0	29	0	9	38	38	5	83	0	89	0	74	33	107	196	234
13:00 13:15	0	0	0	0	25	0	5	30	30	5	89	0	94	0	73	30	103	197	227
13:15 13:30	0	0	0	0	28	0	10	38	38	7	71	0	78	0	60	27	87	165	203
15:00 15:15	0	0	0	0	28	0	16	44	44	7	74	0	81	0	97	31	128	209	253
15:15 15:30	0	0	0	0	40	0	18	58	58	9	90	0	99	0	101	37	138	237	295
15:30 15:45	0	0	0	0	55	0	17	72	72	7	79	0	86	0	131	40	171	257	329
15:45 16:00	0	0	0	0	32	0	20	52	52	12	91	0	103	0	141	41	182	285	337
16:00 16:15	0	0	0	0	43	0	12	55	55	19	112	0	131	0	142	47	189	320	375
16:15 16:30	0	0	0	0	40	0	14	54	54	20	87	0	107	0	111	45	156	263	317
16:45 17:00	0	0	0	0	44	0	15	59	59	15	112	0	127	0	118	36	154	281	340
17:00 17:15	0	0	0	0	44	0	22	66	66	12	90	0	102	0	126	42	168	270	336
17:15 17:30	0	0	0	0	44	0	22	66	66	13	84	0	97	0	117	55	173	270	336
17:30 17:45	0	0	0	0	36	0	8	44	44	17	80	0	97	0	124	57	181	278	322
Total:	0	0	0	0	1132	0	448	1580	1580	468	2973	0	3443	0	2770	1172	3943	7386	8,966

Note: U-Turns are included in Totals, cyclist volume is not included in totals. For cyclist volumes refer to Cyclist Volume report.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FERNBANK RD @ ROBERT GRANT AVE

Survey Date: Wednesday, June 25, 2025

WO No: 42851

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

ROBERT GRANT AVE

FERNBANK RD

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
16:30	16:45	0	0	0	0	0	0	0
17:45	18:00	0	0	0	2	0	2	2
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	1	0	1	0	0	0	1
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
16:45	17:00	0	0	0	0	0	0	0
17:00	17:15	0	0	0	2	3	5	5
17:15	17:30	0	0	0	1	0	1	1
17:30	17:45	0	0	0	1	1	2	2
Total		1	0	1	6	4	10	11



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FERNBANK RD @ ROBERT GRANT AVE

Survey Date: Wednesday, June 25, 2025

WO No: 42851

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

ROBERT GRANT AVE

FERNBANK RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	3	3	0	0	0	3
07:15 07:30	0	0	0	0	0	0	0
07:30 07:45	0	0	0	0	0	0	0
16:30 16:45	0	0	0	0	0	0	0
17:45 18:00	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	1	1	0	0	0	1
09:30 09:45	0	0	0	0	0	0	0
09:45 10:00	0	1	1	0	0	0	1
11:30 11:45	0	0	0	0	0	0	0
11:45 12:00	0	0	0	0	0	0	0
12:00 12:15	0	0	0	0	0	0	0
12:15 12:30	0	0	0	0	0	0	0
12:30 12:45	0	1	1	0	0	0	1
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
16:45 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
Total	0	6	6	0	0	0	6



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FERNBANK RD @ ROBERT GRANT AVE

Survey Date: Wednesday, June 25, 2025

WO No: 42851

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

ROBERT GRANT AVE

FERNBANK RD

Northbound

Southbound

Eastbound

Westbound

Time Period		Northbound			N TOT	Southbound			S TOT	STR TOT	Eastbound			E TOT	Westbound			W TOT	STR TOT	Grand Total
		LT	ST	RT		LT	ST	RT			LT	ST	RT		LT	ST	RT			
07:00	07:15	0	0	0	0	2	0	0	2	2	0	0	0	0	0	2	4	6	6	8
07:15	07:30	0	0	0	0	0	0	2	2	2	0	4	0	4	0	6	3	9	13	15
07:30	07:45	0	0	0	0	0	0	0	0	0	2	6	0	8	0	0	3	3	11	11
16:30	16:45	0	0	0	0	2	0	0	2	2	0	0	0	0	0	2	2	4	4	6
17:45	18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
07:45	08:00	0	0	0	0	3	0	3	6	6	3	4	0	7	0	4	2	6	13	19
08:00	08:15	0	0	0	0	3	0	0	3	3	0	5	0	5	0	1	5	6	11	14
08:15	08:30	0	0	0	0	2	0	2	4	4	1	6	0	7	0	6	6	12	19	23
08:30	08:45	0	0	0	0	0	0	1	1	1	0	3	0	3	0	5	2	7	10	11
08:45	09:00	0	0	0	0	0	0	3	3	3	1	3	0	4	0	3	3	6	10	13
09:00	09:15	0	0	0	0	2	0	1	3	3	1	3	0	4	0	5	6	11	15	18
09:15	09:30	0	0	0	0	1	0	0	1	1	1	8	0	9	0	2	6	8	17	18
09:30	09:45	0	0	0	0	1	0	1	2	2	0	2	0	2	0	3	2	5	7	9
09:45	10:00	0	0	0	0	1	0	0	1	1	1	1	0	2	0	3	4	7	9	10
11:30	11:45	0	0	0	0	1	0	0	1	1	0	3	0	3	0	6	2	8	11	12
11:45	12:00	0	0	0	0	0	0	2	2	2	4	8	0	12	0	5	2	7	19	21
12:00	12:15	0	0	0	0	1	0	0	1	1	0	2	0	2	0	1	1	2	4	5
12:15	12:30	0	0	0	0	0	0	0	0	0	1	4	0	5	0	6	3	9	14	14
12:30	12:45	0	0	0	0	0	0	1	1	1	0	7	0	7	0	3	0	3	10	11
12:45	13:00	0	0	0	0	0	0	0	0	0	0	5	0	5	0	2	1	3	8	8
13:00	13:15	0	0	0	0	0	0	1	1	1	0	2	0	2	0	2	2	4	6	7
13:15	13:30	0	0	0	0	0	0	0	0	0	0	4	0	4	0	2	3	5	9	9
15:00	15:15	0	0	0	0	0	0	0	0	0	0	1	0	1	0	4	1	5	6	6
15:15	15:30	0	0	0	0	2	0	0	2	2	0	2	0	2	0	0	0	0	2	4
15:30	15:45	0	0	0	0	1	0	0	1	1	0	0	0	0	0	2	1	3	3	4
15:45	16:00	0	0	0	0	0	0	0	0	0	0	1	0	1	0	5	1	6	7	7
16:00	16:15	0	0	0	0	1	0	0	1	1	1	5	0	6	0	2	2	4	10	11
16:15	16:30	0	0	0	0	1	0	2	3	3	0	0	0	0	0	2	1	3	3	6
16:45	17:00	0	0	0	0	1	0	0	1	1	0	1	0	1	0	1	1	2	3	4
17:00	17:15	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	3	3	5	5
17:15	17:30	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	1
17:30	17:45	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2	2
Total:	None	0	0	0	0	25	0	19	44	44	16	94	0	110	0	86	73	159	269	313

Transportation Services - Traffic Services

Turning Movement Count - Study Results

FERNBANK RD @ ROBERT GRANT AVE

Survey Date: Wednesday, June 25, 2025

WO No: 42851

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

ROBERT GRANT AVE

FERNBANK RD

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

Turning Movement Count - Study Results

FLEWELLYN RD @ STITTSVILLE MAIN ST/HUNTLEY RD

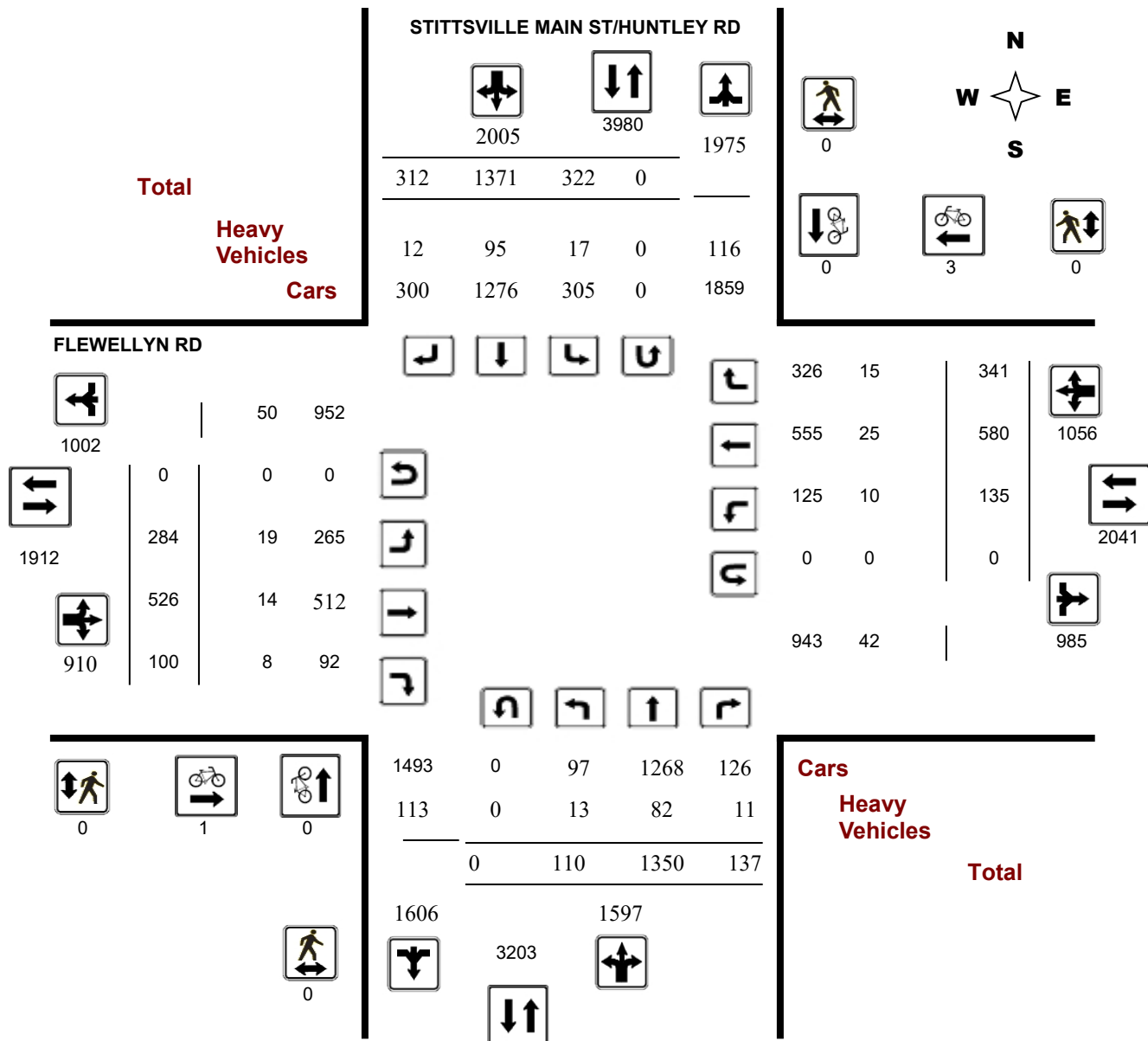
Survey Date: Tuesday, April 30, 2019

Start Time: 07:00

WO No: 38592

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

FLEWELLYN RD @ STITTSVILLE MAIN ST/HUNTLEY RD

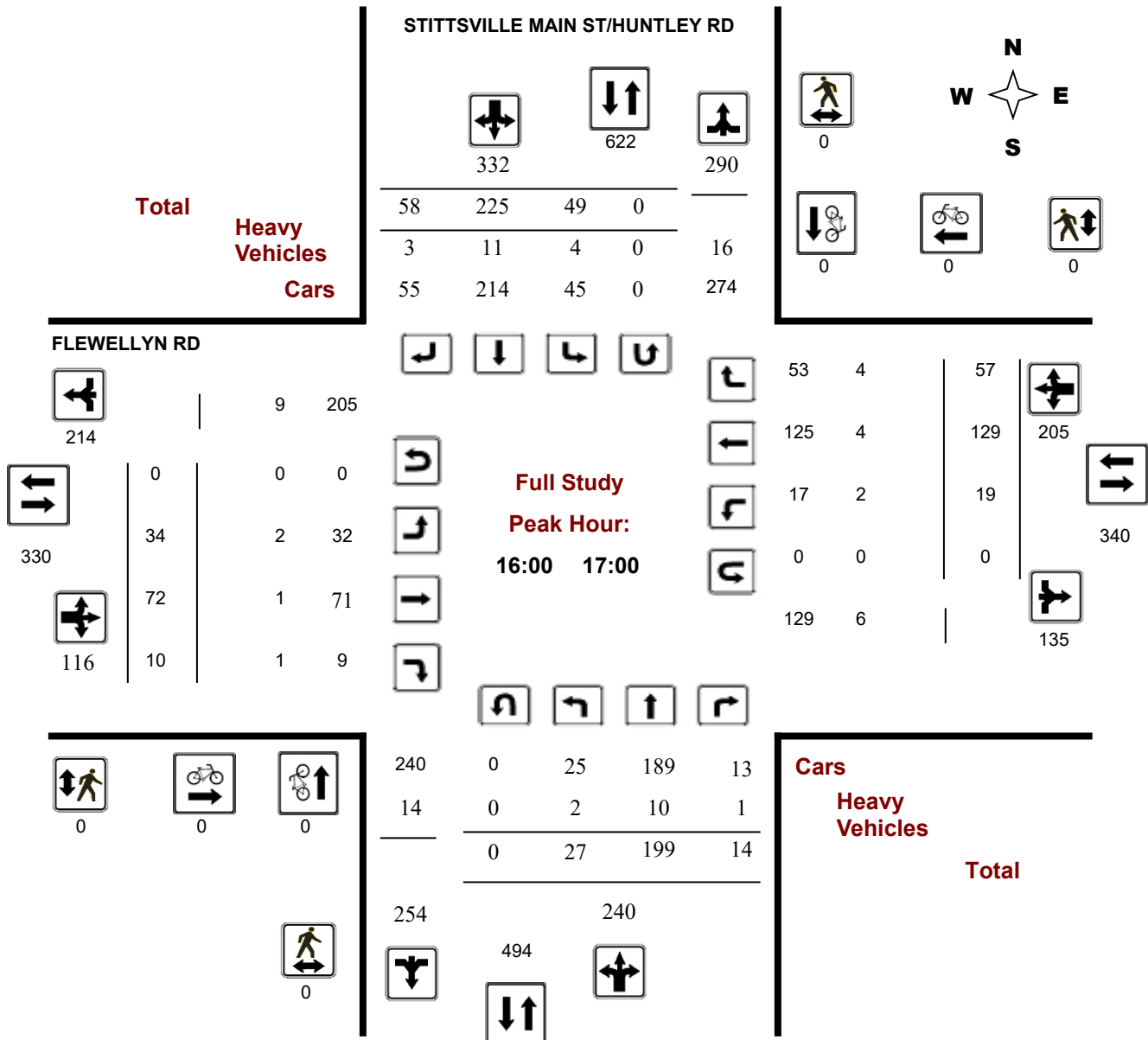
Survey Date: Tuesday, April 30, 2019

WO No: 38592

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Study Results

FLEWELLYN RD @ STITTSVILLE MAIN ST/HUNTLEY RD

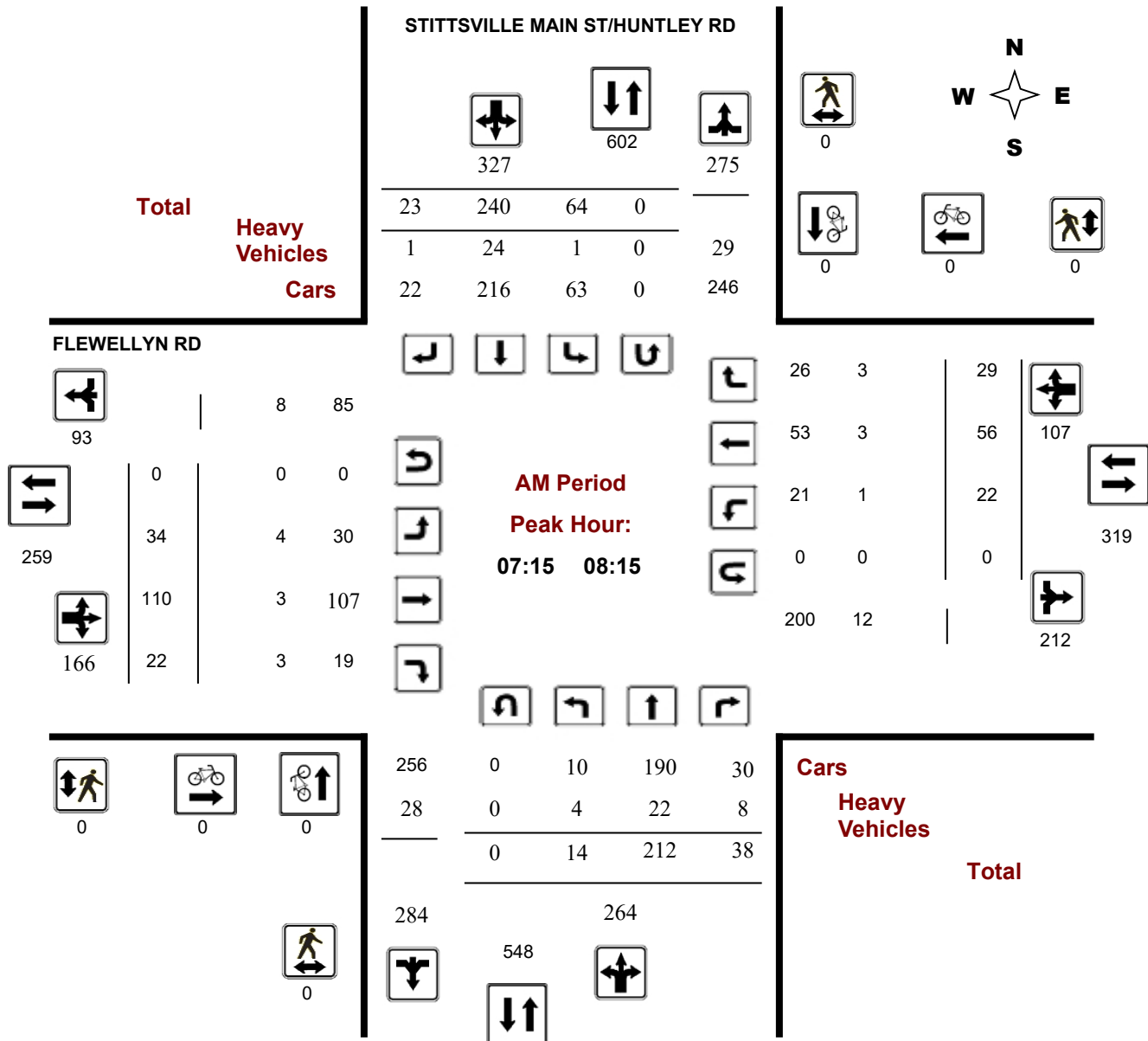
Survey Date: Tuesday, April 30, 2019

WO No: 38592

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



Turning Movement Count - Study Results

FLEWELLYN RD @ STITTSVILLE MAIN ST/HUNTLEY RD

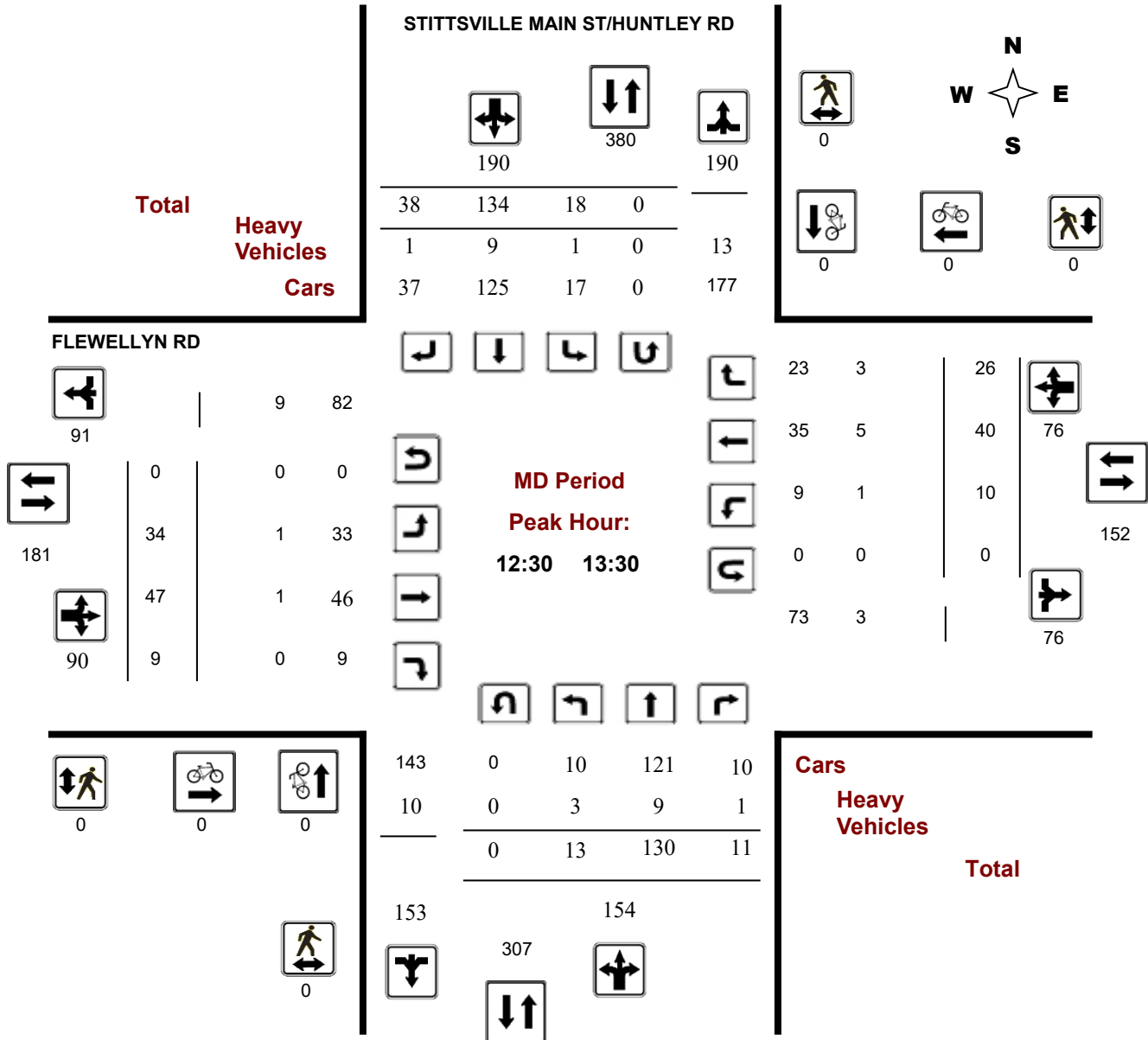
Survey Date: Tuesday, April 30, 2019

WO No: 38592

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



Turning Movement Count - Study Results

FLEWELLYN RD @ STITTSVILLE MAIN ST/HUNTLEY RD

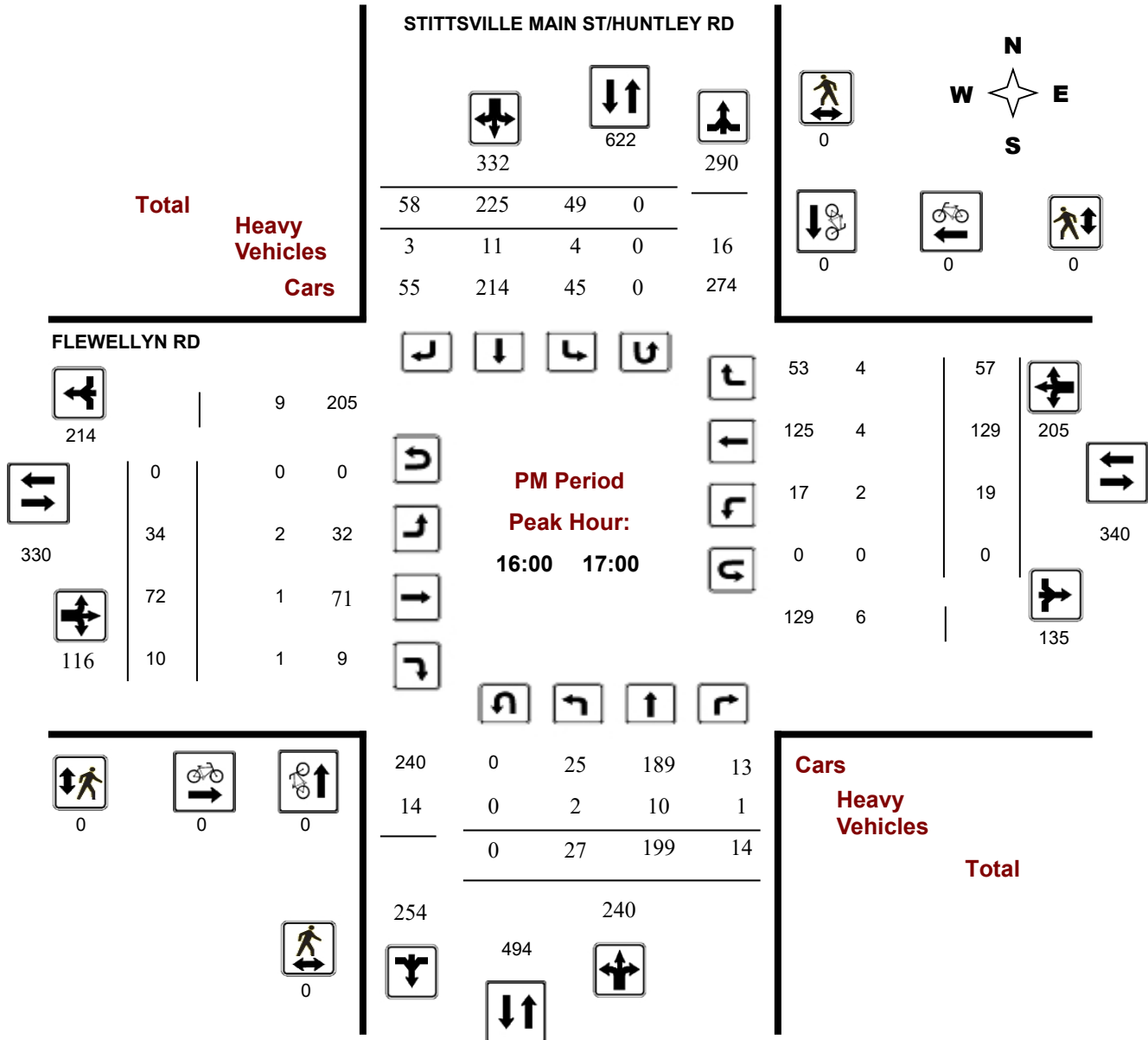
Survey Date: Tuesday, April 30, 2019

WO No: 38592

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FLEWELLYN RD @ STITTSTVILLE MAIN ST/HUNTLEY RD

Survey Date: Tuesday, April 30, 2019

WO No: 38592

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Tuesday, April 30, 2019

Total Observed U-Turns

AADT Factor

Northbound: 0 Southbound: 0

.90

Eastbound: 0 Westbound: 0

STITTSTVILLE MAIN ST/HUNTLEY RD

FLEWELLYN RD

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total
	LT	ST	RT	NB TOT		LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT		LT	ST	RT	WB TOT	STR TOT	
07:00 08:00	17	189	30	236		74	243	20	337	573	34	116	26	176		19	57	33	109	285	858
08:00 09:00	8	176	27	211		48	158	24	230	441	42	85	13	140		18	50	28	96	236	677
09:00 10:00	8	152	16	176		50	121	30	201	377	33	52	9	94		16	42	34	92	186	563
11:30 12:30	5	121	3	129		18	127	41	186	315	42	54	9	105		10	30	29	69	174	489
12:30 13:30	13	130	11	154		18	134	38	190	344	34	47	9	90		10	40	26	76	166	510
15:00 16:00	11	184	20	215		33	162	43	238	453	32	52	8	92		23	110	56	189	281	734
16:00 17:00	27	199	14	240		49	225	58	332	572	34	72	10	116		19	129	57	205	321	893
17:00 18:00	21	199	16	236		32	201	58	291	527	33	48	16	97		20	122	78	220	317	844
Sub Total	110	1350	137	1597		322	1371	312	2005	3602	284	526	100	910		135	580	341	1056	1966	5568
U Turns				0					0	0				0					0	0	0
Total	110	1350	137	1597		322	1371	312	2005	3602	284	526	100	910		135	580	341	1056	1966	5568
EQ 12Hr	153	1876	190	2220		448	1906	434	2787	5007	395	731	139	1265		188	806	474	1468	2733	7740

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

1.39

AVG 12Hr	138	1688	171	1998		403	2247	511	2508	4506	356	658	125	1138		169	725	427	1321	2460	6966
-----------------	-----	------	-----	------	--	-----	------	-----	------	------	-----	-----	-----	------	--	-----	-----	-----	------	------	------

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.

.90

AVG 24Hr	181	2211	224	2617		528	2944	669	3285	5903	466	862	164	1491		221	950	559	1731	3223	9125
-----------------	-----	------	-----	------	--	-----	------	-----	------	------	-----	-----	-----	------	--	-----	-----	-----	------	------	------

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

FLEWELLYN RD @ STITTSVILLE MAIN ST/HUNTLEY RD

Survey Date: Tuesday, April 30, 2019

WO No: 38592

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

STITTSVILLE MAIN ST/HUNTLEY RD

FLEWELLYN RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	4	29	1	34	24	43	4	71	105	9	30	8	47	2	14	9	25	72	177
07:15 07:30	3	59	8	70	20	59	4	83	153	6	23	8	37	4	13	8	25	62	215
07:30 07:45	3	43	10	56	16	75	6	97	153	11	31	6	48	10	12	6	28	76	229
07:45 08:00	7	58	11	76	14	66	6	86	162	8	32	4	44	3	18	10	31	75	237
08:00 08:15	1	52	9	62	14	40	7	61	123	9	24	4	37	5	13	5	23	60	183
08:15 08:30	2	44	4	50	16	44	3	63	113	16	29	3	48	6	12	8	26	74	187
08:30 08:45	3	38	7	48	6	43	8	57	105	7	13	4	24	4	14	10	28	52	157
08:45 09:00	2	42	7	51	12	31	6	49	100	10	19	2	31	3	11	5	19	50	150
09:00 09:15	2	43	6	51	18	33	11	62	113	8	11	3	22	6	7	13	26	48	161
09:15 09:30	1	38	3	42	10	25	12	47	89	6	17	1	24	4	15	5	24	48	137
09:30 09:45	4	40	5	49	12	32	3	47	96	9	11	4	24	3	7	7	17	41	137
09:45 10:00	1	31	2	34	10	31	4	45	79	10	13	1	24	3	13	9	25	49	128
11:30 11:45	0	33	1	34	6	38	14	58	92	4	15	1	20	2	9	6	17	37	129
11:45 12:00	2	38	2	42	3	39	7	49	91	9	8	1	18	2	5	10	17	35	126
12:00 12:15	1	30	0	31	3	29	11	43	74	13	23	4	40	5	4	6	15	55	129
12:15 12:30	2	20	0	22	6	21	9	36	58	16	8	3	27	1	12	7	20	47	105
12:30 12:45	4	29	2	35	3	31	8	42	77	8	9	2	19	2	9	5	16	35	112
12:45 13:00	2	32	0	34	2	30	16	48	82	9	16	2	27	3	8	7	18	45	127
13:00 13:15	5	31	2	38	6	33	8	47	85	8	11	1	20	2	10	5	17	37	122
13:15 13:30	2	38	7	47	7	40	6	53	100	9	11	4	24	3	13	9	25	49	149
15:00 15:15	2	35	5	42	11	35	8	54	96	8	13	0	21	8	21	8	37	58	154
15:15 15:30	3	49	9	61	6	48	13	67	128	10	15	3	28	4	18	12	34	62	190
15:30 15:45	4	50	5	59	6	34	11	51	110	6	10	3	19	7	31	16	54	73	183
17:30 17:45	3	56	6	65	9	44	20	73	138	8	14	5	27	2	28	21	51	78	216
17:45 18:00	6	37	1	44	5	49	14	68	112	6	9	4	19	5	23	20	48	67	179
15:45 16:00	2	50	1	53	10	45	11	66	119	8	14	2	24	4	40	20	64	88	207
16:00 16:15	10	49	5	64	19	57	11	87	151	13	20	3	36	4	32	5	41	77	228
16:15 16:30	7	48	5	60	9	62	18	89	149	9	15	1	25	7	40	15	62	87	236
16:30 16:45	2	53	4	59	9	49	15	73	132	7	24	4	35	3	25	22	50	85	217
16:45 17:00	8	49	0	57	12	57	14	83	140	5	13	2	20	5	32	15	52	72	212
17:00 17:15	8	62	2	72	6	53	10	69	141	6	12	2	20	5	22	17	44	64	205
17:15 17:30	4	44	7	55	12	55	14	81	136	13	13	5	31	8	49	20	77	108	244
Total:	110	1350	137	1597	322	1371	312	2005	3602	284	526	100	910	135	580	341	1056	1966	5,568

Note: U-Turns are included in Totals, cyclist volume is not included in totals. For cycliste volumes reffer to Cyclist Volume report.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FLEWELLYN RD @ STITTSVILLE MAIN ST/HUNTLEY RD

Survey Date: Tuesday, April 30, 2019

WO No: 38592

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

STITTSVILLE MAIN ST/HUNTLEY RD

FLEWELLYN RD

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	1	1	1
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	1	1	1
17:30	17:45	0	0	0	1	0	1	1
17:45	18:00	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	1	1	1
17:15	17:30	0	0	0	0	0	0	0
Total		0	0	0	1	3	4	4



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FLEWELLYN RD @ STITTSVILLE MAIN ST/HUNTLEY RD

Survey Date: Tuesday, April 30, 2019

WO No: 38592

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

STITTSVILLE MAIN ST/HUNTLEY RD

FLEWELLYN RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	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
17:30 17:45	0	0	0	0	0	0	0
17:45 18:00	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
Total	0	0	0	0	0	0	0



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FLEWELLYN RD @ STITTSTVILLE MAIN ST/HUNTLEY RD

Survey Date: Tuesday, April 30, 2019

WO No: 38592

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

STITTSTVILLE MAIN ST/HUNTLEY RD

FLEWELLYN RD

Northbound

Southbound

Eastbound

Westbound

Time Period		Northbound			N TOT	Southbound			S TOT	STR TOT	Eastbound			E TOT	Westbound			W TOT	STR TOT	Grand Total
		LT	ST	RT		LT	ST	RT			LT	ST	RT		LT	ST	RT			
07:00	07:15	1	2	0	3	2	5	0	7	10	2	1	0	3	0	0	0	0	3	13
07:15	07:30	0	3	1	4	1	10	1	12	16	2	2	0	4	0	1	1	2	6	22
07:30	07:45	0	7	4	11	0	9	0	9	20	2	1	3	6	0	0	1	1	7	27
07:45	08:00	4	11	2	17	0	3	0	3	20	0	0	0	0	0	1	1	2	2	22
08:00	08:15	0	1	1	2	0	2	0	2	4	0	0	0	0	1	1	0	2	2	6
08:15	08:30	0	5	0	5	0	4	0	4	9	3	1	0	4	2	1	0	3	7	16
08:30	08:45	2	1	0	3	0	3	0	3	6	0	0	0	0	1	0	0	1	1	7
08:45	09:00	0	3	0	3	1	3	0	4	7	0	3	1	4	0	1	0	1	5	12
09:00	09:15	0	3	1	4	0	2	3	5	9	1	1	0	2	0	0	2	2	4	13
09:15	09:30	0	3	0	3	2	1	0	3	6	0	0	0	0	0	0	0	0	0	6
09:30	09:45	0	1	0	1	0	2	0	2	3	0	1	0	1	0	1	0	1	2	5
09:45	10:00	0	2	0	2	0	1	0	1	3	0	0	0	0	0	1	1	2	2	5
11:30	11:45	0	1	0	1	0	2	0	2	3	1	0	0	1	0	0	0	0	1	4
11:45	12:00	0	0	0	0	1	4	1	6	6	0	0	0	0	1	1	0	2	2	8
12:00	12:15	0	2	0	2	0	3	0	3	5	0	0	0	0	0	0	0	0	0	5
12:15	12:30	0	3	0	3	0	2	0	2	5	0	0	1	1	0	0	0	0	1	6
12:30	12:45	1	2	1	4	0	0	0	0	4	0	0	0	0	0	1	1	2	2	6
12:45	13:00	0	1	0	1	0	3	0	3	4	0	1	0	1	0	0	0	0	1	5
13:00	13:15	1	1	0	2	0	1	0	1	3	1	0	0	1	1	3	2	6	7	10
13:15	13:30	1	5	0	6	1	5	1	7	13	0	0	0	0	0	1	0	1	1	14
15:00	15:15	0	1	0	1	2	2	0	4	5	3	2	0	5	0	1	0	1	6	11
15:15	15:30	0	4	0	4	0	2	0	2	6	2	0	0	2	0	0	1	1	3	9
15:30	15:45	0	3	0	3	0	2	0	2	5	0	0	1	1	2	0	0	2	3	8
17:30	17:45	0	1	0	1	0	2	0	2	3	0	0	0	0	0	1	0	1	1	4
17:45	18:00	1	0	0	1	0	1	0	1	2	0	0	0	0	0	1	0	1	1	3
15:45	16:00	0	3	0	3	1	4	1	6	9	0	0	0	0	0	3	1	4	4	13
16:00	16:15	0	1	0	1	2	5	2	9	10	1	0	0	1	1	2	0	3	4	14
16:15	16:30	0	2	0	2	2	3	0	5	7	0	0	0	0	1	2	2	5	5	12
16:30	16:45	1	3	1	5	0	0	1	1	6	1	1	0	2	0	0	1	1	3	9
16:45	17:00	1	4	0	5	0	3	0	3	8	0	0	1	1	0	0	1	1	2	10
17:00	17:15	0	2	0	2	0	4	1	5	7	0	0	0	0	0	0	0	0	0	7
17:15	17:30	0	1	0	1	2	2	1	5	6	0	0	1	1	0	2	0	2	3	9
Total:	None	13	82	11	106	17	95	12	124	230	19	14	8	41	10	25	15	50	91	321

Transportation Services - Traffic Services

Turning Movement Count - Study Results

FLEWELLYN RD @ STITTSVILLE MAIN ST/HUNTLEY RD

Survey Date: Tuesday, April 30, 2019

WO No: 38592

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

		STITTSVILLE MAIN ST/HUNTLEY RD		FLEWELLYN RD		Total
Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	0	0
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	0	0
08:15	08:30	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
09:45	10:00	0	0	0	0	0
11:30	11:45	0	0	0	0	0
11:45	12:00	0	0	0	0	0
12:00	12:15	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	0	0	0
16:45	17:00	0	0	0	0	0
17:00	17:15	0	0	0	0	0
17:15	17:30	0	0	0	0	0
Total		0	0	0	0	0

Turning Movement Count - Study Results

HUNTLEY RD @ FALLOWFIELD RD

Survey Date: Thursday, April 25, 2019

Start Time: 07:00

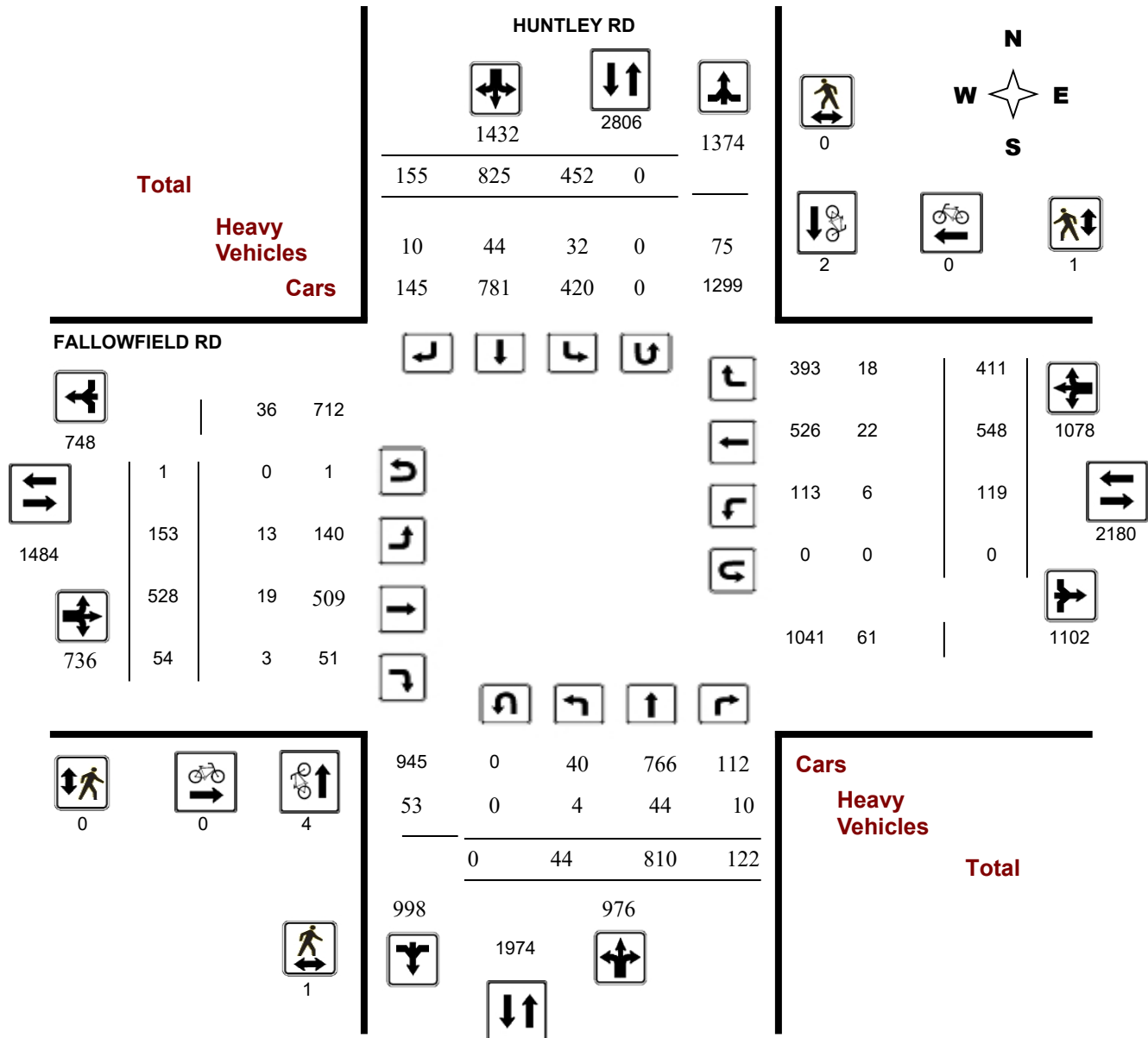
WO No:

38593

Device:

Miovision

Full Study Diagram



Turning Movement Count - Study Results

HUNTLEY RD @ FALLOWFIELD RD

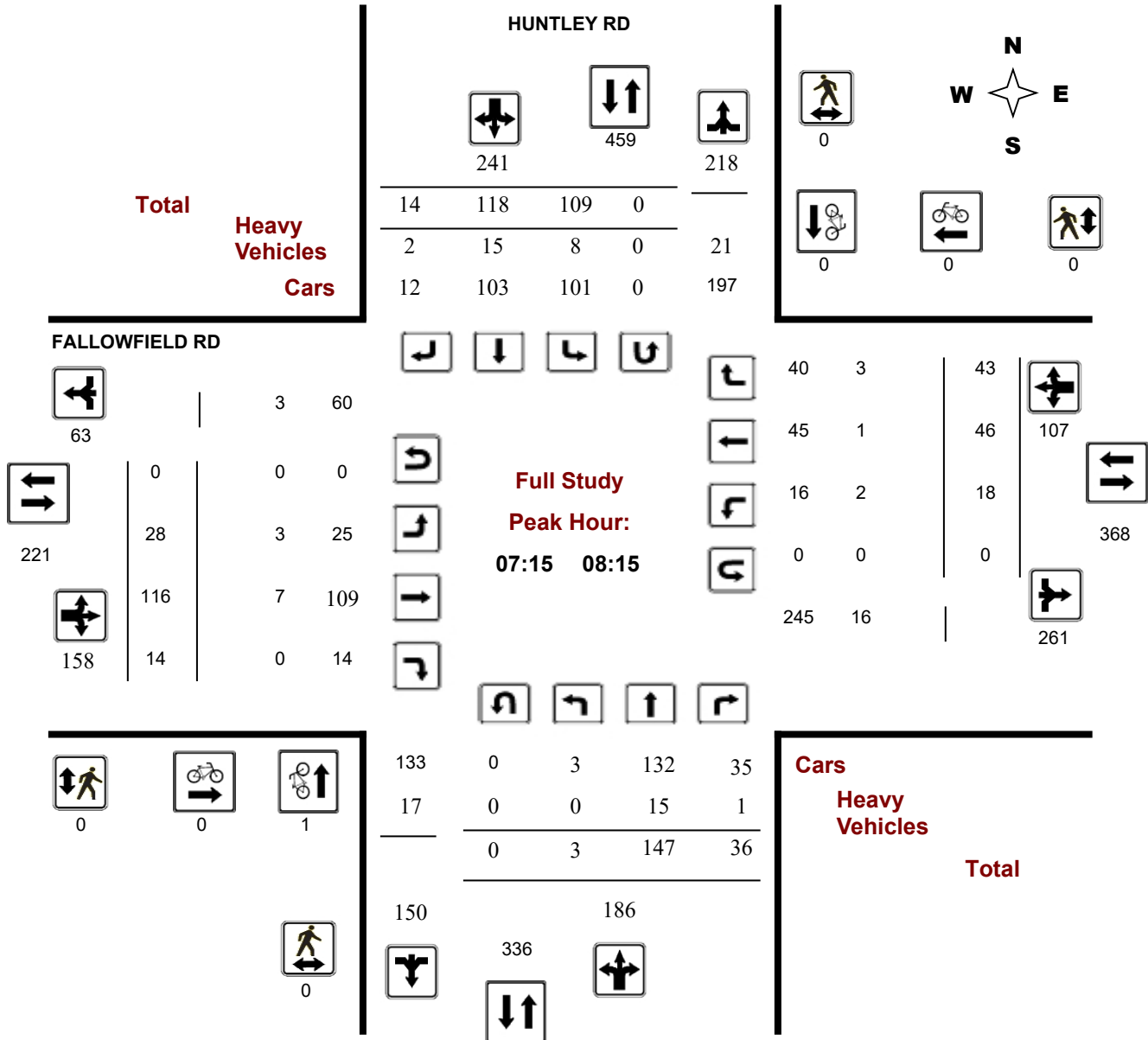
Survey Date: Thursday, April 25, 2019

WO No: 38593

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Study Results

HUNTLEY RD @ FALLOWFIELD RD

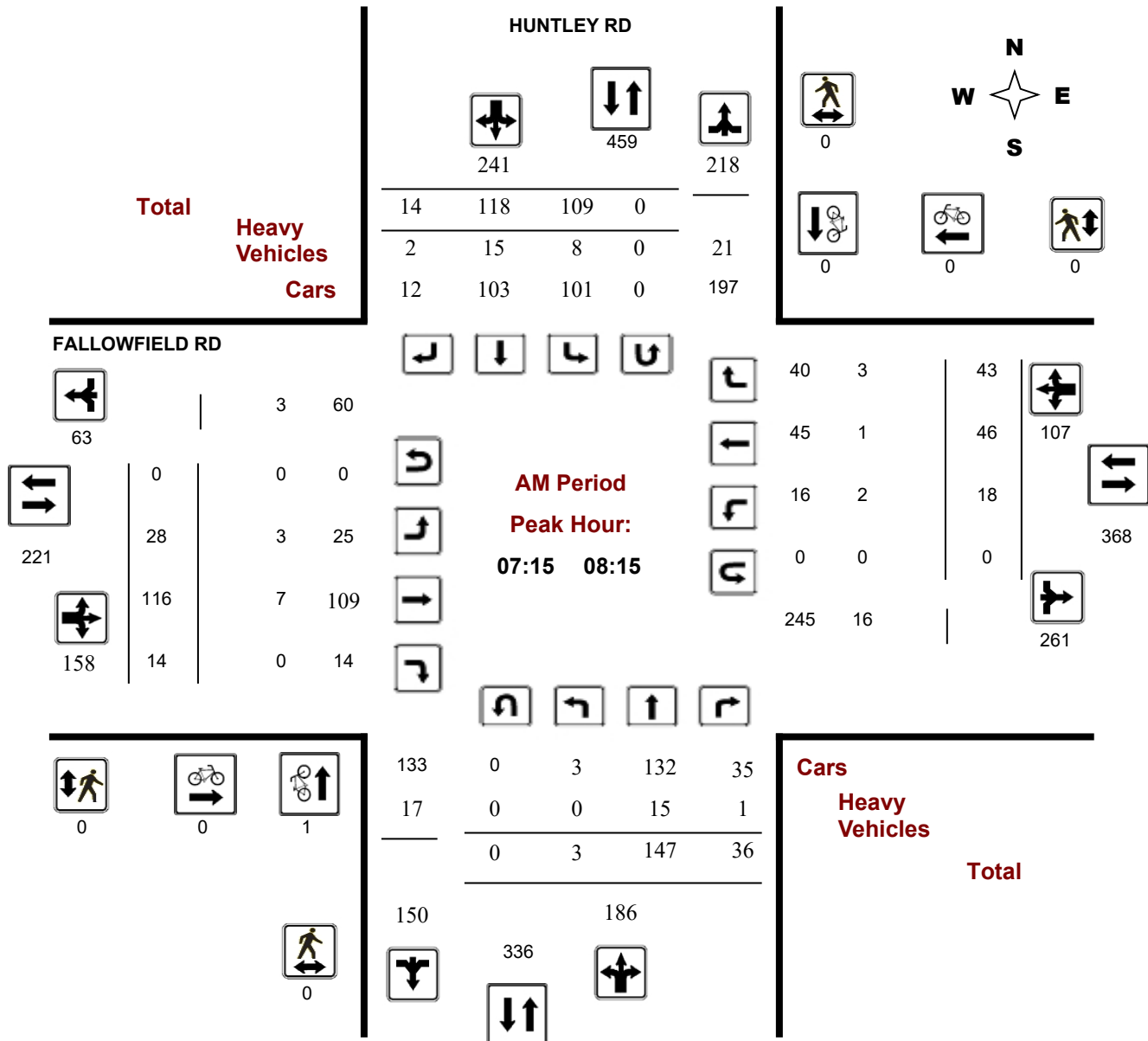
Survey Date: Thursday, April 25, 2019

WO No: 38593

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



Turning Movement Count - Study Results

HUNTLEY RD @ FALLOWFIELD RD

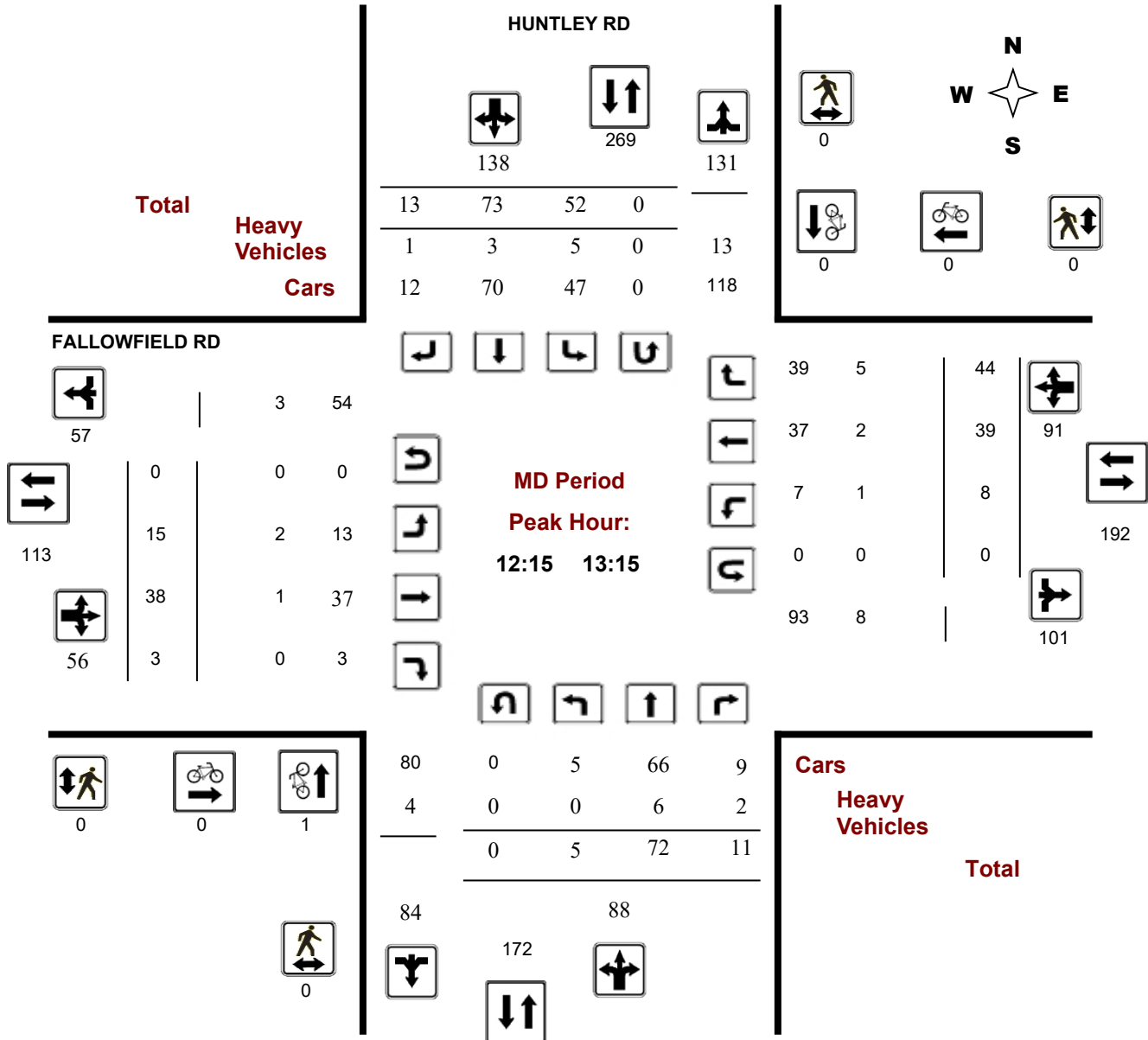
Survey Date: Thursday, April 25, 2019

WO No: 38593

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



Turning Movement Count - Study Results

HUNTLEY RD @ FALLOWFIELD RD

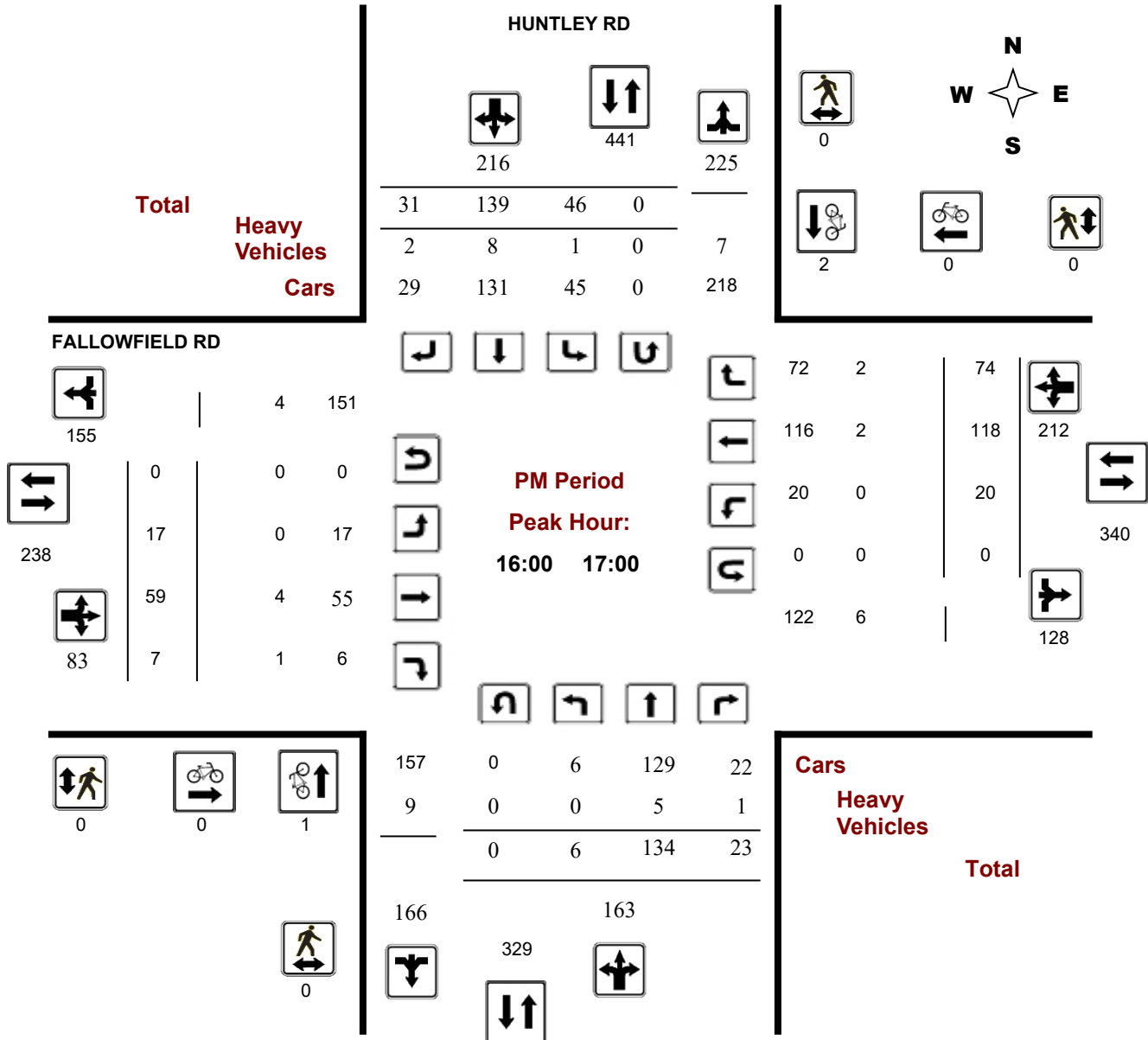
Survey Date: Thursday, April 25, 2019

WO No: 38593

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

HUNTLEY RD @ FALLOWFIELD RD

Survey Date: Thursday, April 25, 2019

WO No: 38593

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, April 25, 2019

Total Observed U-Turns

AADT Factor

Northbound: 0 Southbound: 0
Eastbound: 1 Westbound: 0
.90

HUNTLEY RD

FALLOWFIELD RD

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total
	LT	ST	RT	NB TOT		LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT		LT	ST	RT	WB TOT	STR TOT	
07:00 08:00	3	133	30	166		95	114	14	223	389	30	127	15	172		19	39	43	101	273	662
08:00 09:00	3	105	15	123		75	86	9	170	293	25	107	8	140		17	49	37	103	243	536
09:00 10:00	3	90	9	102		48	65	10	123	225	12	48	4	64		17	41	37	95	159	384
11:30 12:30	4	66	8	78		50	90	16	156	234	10	46	4	60		4	22	45	71	131	365
12:30 13:30	5	68	11	84		45	75	10	130	214	16	36	5	57		6	44	38	88	145	359
15:00 16:00	11	107	8	126		49	141	33	223	349	23	56	2	81		14	108	56	178	259	608
16:00 17:00	6	134	23	163		46	139	31	216	379	17	59	7	83		20	118	74	212	295	674
17:00 18:00	9	107	18	134		44	115	32	191	325	20	49	9	78		22	127	81	230	308	633
Sub Total	44	810	122	976		452	825	155	1432	2408	153	528	54	735		119	548	411	1078	1813	4221
U Turns				0					0	0				1					0	1	1
Total	44	810	122	976		452	825	155	1432	2408	153	528	54	736		119	548	411	1078	1814	4222
EQ 12Hr	61	1126	170	1357		628	1147	215	1990	3347	213	734	75	1023		165	762	571	1498	2521	5869

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

1.39

AVG 12Hr	55	1013	153	1221		565	1352	254	1791	3012	192	661	68	921		148	686	514	1348	2269	5282
-----------------	----	------	-----	------	--	-----	------	-----	------	------	-----	-----	----	-----	--	-----	-----	-----	------	------	------

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.

.90

AVG 24Hr	72	1327	200	1600		740	1771	333	2346	3946	252	866	89	1207		194	899	673	1766	2972	6919
-----------------	----	------	-----	------	--	-----	------	-----	------	------	-----	-----	----	------	--	-----	-----	-----	------	------	------

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

HUNTLEY RD @ FALLOWFIELD RD

Survey Date: Thursday, April 25, 2019

WO No: 38593

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

HUNTLEY RD

FALLOWFIELD RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total	
07:00	07:15	0	19	1	20	9	13	1	23	43	4	39	3	46	6	7	9	22	68	111
07:15	07:30	2	40	13	55	30	36	2	68	123	5	31	2	38	8	12	14	34	72	195
07:30	07:45	0	29	8	37	27	44	3	74	111	15	26	4	45	3	6	8	17	62	173
07:45	08:00	1	45	8	54	29	21	8	58	112	6	31	6	43	2	14	12	28	71	183
08:00	08:15	0	33	7	40	23	17	1	41	81	2	28	2	32	5	14	9	28	60	141
08:15	08:30	1	24	1	26	21	18	3	42	68	5	33	2	40	2	10	10	22	62	130
08:30	08:45	1	27	2	30	17	25	1	43	73	13	19	1	33	5	12	9	26	59	132
08:45	09:00	1	21	5	27	14	26	4	44	71	5	27	3	35	5	13	9	27	62	133
09:00	09:15	1	23	2	26	17	23	1	41	67	3	13	1	17	5	12	10	27	44	111
09:15	09:30	2	27	1	30	12	17	4	33	63	2	16	1	19	4	10	5	19	38	101
09:30	09:45	0	21	2	23	15	12	3	30	53	3	11	0	14	3	7	11	21	35	88
09:45	10:00	0	19	4	23	4	13	2	19	42	4	8	2	14	5	12	11	28	42	84
11:30	11:45	0	16	1	17	12	26	4	42	59	2	12	0	14	1	4	8	13	27	86
11:45	12:00	0	18	3	21	7	25	4	36	57	2	11	1	14	0	6	10	16	30	87
12:00	12:15	3	16	2	21	16	18	4	38	59	3	10	2	15	1	5	10	16	31	90
17:45	18:00	1	30	2	33	13	30	8	51	84	6	13	1	20	5	28	15	48	68	152
17:30	17:45	2	30	6	38	12	28	7	47	85	4	9	3	16	7	29	20	56	72	157
12:15	12:30	1	16	2	19	15	21	4	40	59	3	13	1	17	2	7	17	26	43	102
12:30	12:45	2	21	3	26	11	16	2	29	55	1	9	0	10	1	10	4	15	25	80
12:45	13:00	0	12	3	15	15	20	3	38	53	7	10	1	18	2	11	9	22	40	93
13:00	13:15	2	23	3	28	11	16	4	31	59	4	6	1	11	3	11	14	28	39	98
13:15	13:30	1	12	2	15	8	23	1	32	47	4	11	3	19	0	12	11	23	42	89
15:00	15:15	3	26	3	32	14	33	9	56	88	5	13	0	18	3	17	7	27	45	133
15:15	15:30	1	31	2	34	8	36	7	51	85	4	12	2	18	1	30	21	52	70	155
15:30	15:45	6	26	1	33	12	26	9	47	80	8	18	0	26	4	36	15	55	81	161
15:45	16:00	1	24	2	27	15	46	8	69	96	6	13	0	19	6	25	13	44	63	159
16:00	16:15	2	35	12	49	12	35	7	54	103	3	15	2	20	7	33	19	59	79	182
16:15	16:30	0	34	5	39	10	41	9	60	99	5	14	0	19	5	34	15	54	73	172
16:30	16:45	1	32	4	37	13	21	10	44	81	4	15	4	23	3	26	22	51	74	155
16:45	17:00	3	33	2	38	11	42	5	58	96	5	15	1	21	5	25	18	48	69	165
17:00	17:15	4	25	5	34	7	34	8	49	83	3	18	3	24	6	34	18	58	82	165
17:15	17:30	2	22	5	29	12	23	9	44	73	7	9	2	18	4	36	28	68	86	159
Total:		44	810	122	976	452	825	155	1432	2408	153	528	54	736	119	548	411	1078	1814	4,222

Note: U-Turns are included in Totals, cyclist volume is not included in totals. For cyclist volumes refer to Cyclist Volume report.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

HUNTLEY RD @ FALLOWFIELD RD

Survey Date: Thursday, April 25, 2019

WO No: 38593

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

		HUNTLEY RD			FALLOWFIELD RD			Grand Total
Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street 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	1	0	1	0	0	0	1
08:15	08:30	0	0	0	0	0	0	0
08:30	08:45	0	0	0	0	0	0	0
08:45	09:00	0	0	0	0	0	0	0
09:00	09:15	0	0	0	0	0	0	0
09:15	09:30	0	0	0	0	0	0	0
09:30	09:45	0	0	0	0	0	0	0
09:45	10:00	0	0	0	0	0	0	0
11:30	11:45	0	0	0	0	0	0	0
11:45	12:00	0	0	0	0	0	0	0
12:00	12:15	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	0	0
17:30	17:45	1	0	1	0	0	0	1
12:15	12:30	0	0	0	0	0	0	0
12:30	12:45	0	0	0	0	0	0	0
12:45	13:00	0	0	0	0	0	0	0
13:00	13:15	1	0	1	0	0	0	1
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	1	2	3	0	0	0	3
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
Total		4	2	6	0	0	0	6



Transportation Services - Traffic Services

Turning Movement Count - Study Results

HUNTLEY RD @ FALLOWFIELD RD

Survey Date: Thursday, April 25, 2019

WO No: 38593

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

HUNTLEY RD

FALLOWFIELD RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	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
17:45 18:00	0	0	0	0	0	0	0
17:30 17:45	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	1	1	1
17:15 17:30	1	0	1	0	0	0	1
Total	1	0	1	0	1	1	2



Transportation Services - Traffic Services

Turning Movement Count - Study Results

HUNTLEY RD @ FALLOWFIELD RD

Survey Date: Thursday, April 25, 2019

WO No: 38593

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

HUNTLEY RD

FALLOWFIELD RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	0	1	0	1	0	1	0	1	2	1	1	0	2	0	1	0	1	3	5
07:15 07:30	0	2	0	2	2	9	0	11	13	1	2	0	3	0	0	0	0	3	16
07:30 07:45	0	9	1	10	0	2	0	2	12	2	4	0	6	2	0	1	3	9	21
07:45 08:00	0	4	0	4	4	3	2	9	13	0	1	0	1	0	1	1	2	3	16
08:00 08:15	0	0	0	0	2	1	0	3	3	0	0	0	0	0	0	1	1	1	4
08:15 08:30	0	2	0	2	0	0	1	1	3	0	0	1	1	0	3	1	4	5	8
08:30 08:45	0	0	0	0	1	2	1	4	4	1	0	0	1	1	2	0	3	4	8
08:45 09:00	0	0	3	3	1	1	0	2	5	1	0	1	2	0	0	0	0	2	7
09:00 09:15	0	1	0	1	3	2	0	5	6	0	0	0	0	0	1	1	2	2	8
09:15 09:30	1	0	0	1	2	0	0	2	3	0	0	0	0	1	0	1	2	2	5
09:30 09:45	0	2	0	2	2	0	1	3	5	0	0	0	0	1	1	0	2	2	7
09:45 10:00	0	1	2	3	0	3	0	3	6	0	0	0	0	0	1	2	3	3	9
11:30 11:45	0	1	0	1	0	1	0	1	2	0	1	0	1	0	0	0	0	1	3
11:45 12:00	0	0	1	1	0	1	0	1	2	0	0	0	0	0	1	0	1	1	3
12:00 12:15	1	1	0	2	1	1	1	3	5	1	0	0	1	0	1	1	2	3	8
17:45 18:00	0	0	0	0	1	1	0	2	2	0	1	0	1	0	0	2	2	3	5
17:30 17:45	0	0	0	0	0	2	0	2	2	0	0	0	0	0	0	0	0	0	2
12:15 12:30	0	2	0	2	3	0	1	4	6	0	0	0	0	1	0	2	3	3	9
12:30 12:45	0	1	1	2	1	1	0	2	4	0	0	0	0	0	1	0	1	1	5
12:45 13:00	0	1	1	2	0	1	0	1	3	1	0	0	1	0	1	2	3	4	7
13:00 13:15	0	2	0	2	1	1	0	2	4	1	1	0	2	0	0	1	1	3	7
13:15 13:30	0	1	0	1	3	2	0	5	6	0	1	0	1	0	2	0	2	3	9
15:00 15:15	2	2	0	4	1	0	0	1	5	1	0	0	1	0	1	0	1	2	7
15:15 15:30	0	2	0	2	0	0	0	0	2	0	1	0	1	0	1	0	1	2	4
15:30 15:45	0	1	0	1	1	0	1	2	3	3	2	0	5	0	1	0	1	6	9
15:45 16:00	0	2	0	2	1	0	0	1	3	0	0	0	0	0	0	0	0	0	3
16:00 16:15	0	2	0	2	1	4	1	6	8	0	1	0	1	0	1	0	1	2	10
16:15 16:30	0	0	0	0	0	2	0	2	2	0	2	0	2	0	1	0	1	3	5
16:30 16:45	0	1	1	2	0	0	1	1	3	0	0	1	1	0	0	1	1	2	5
16:45 17:00	0	2	0	2	0	2	0	2	4	0	1	0	1	0	0	1	1	2	6
17:00 17:15	0	1	0	1	0	0	0	0	1	0	0	0	0	0	1	0	1	1	2
17:15 17:30	0	0	0	0	1	1	0	2	2	0	0	0	0	0	0	0	0	0	2
Total: None	4	44	10	58	32	44	10	86	144	13	19	3	35	6	22	18	46	81	225

Transportation Services - Traffic Services

Turning Movement Count - Study Results

HUNTLEY RD @ FALLOWFIELD RD

Survey Date: Thursday, April 25, 2019

WO No: 38593

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

HUNTLEY RD

FALLOWFIELD RD

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

Turning Movement Count - Study Results

FLEWELLYN RD @ SHEA RD

Survey Date: Wednesday, February 26, 2025

Start Time: 07:00

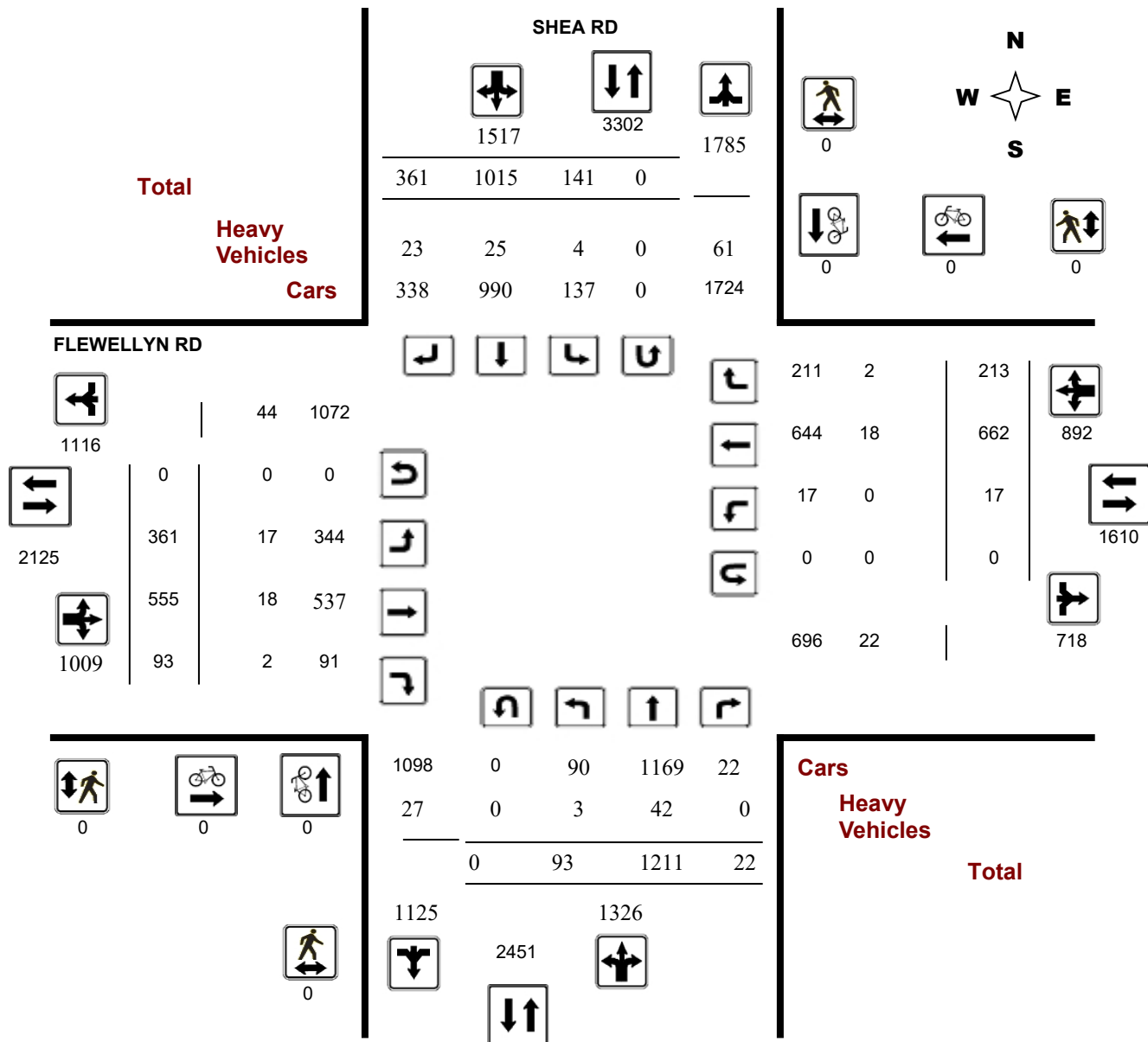
WO No:

42646

Device:

Miovision

Full Study Diagram



Turning Movement Count - Study Results

FLEWELLYN RD @ SHEA RD

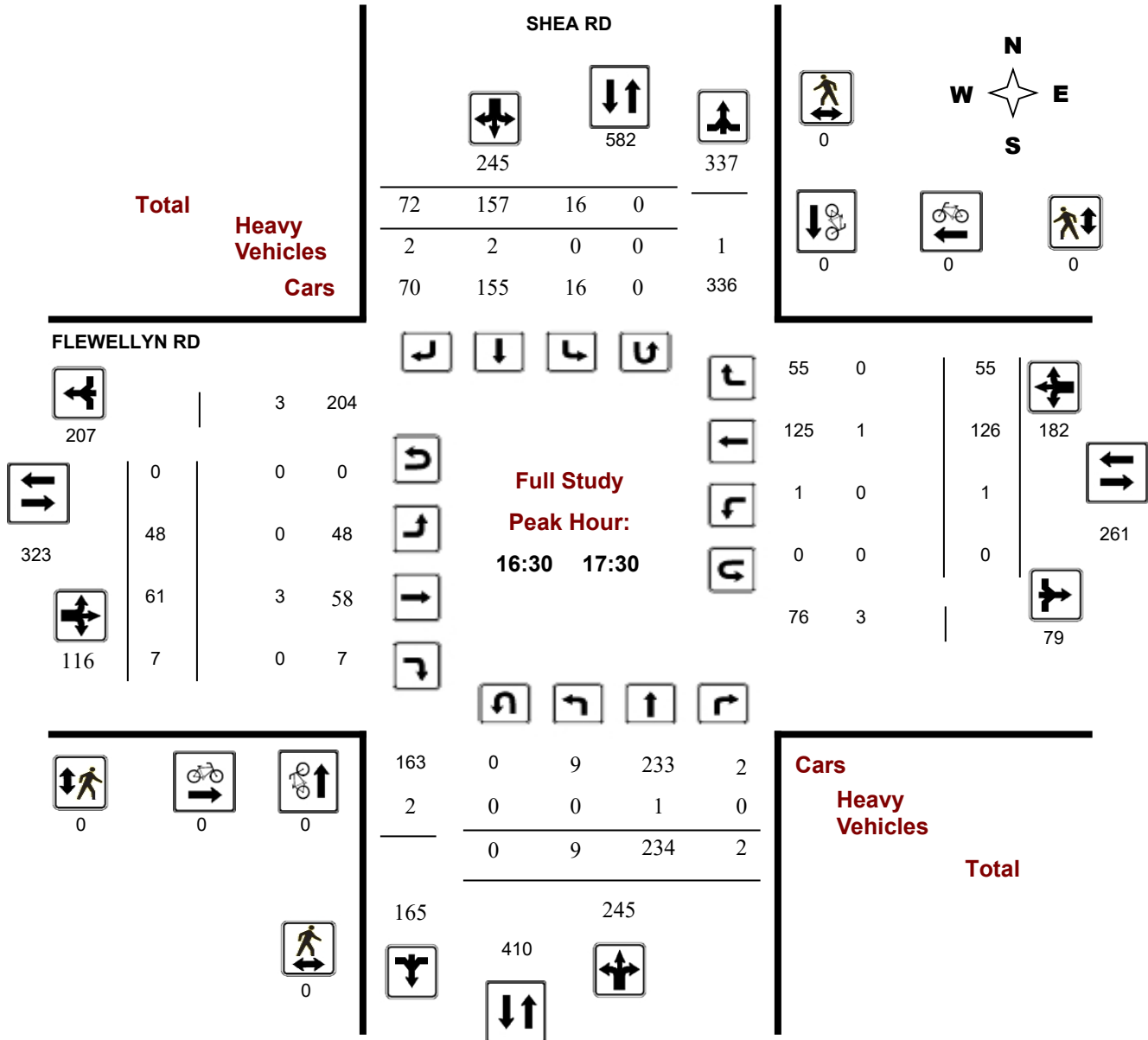
Survey Date: Wednesday, February 26, 2025

WO No: 42646

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Study Results

FLEWELLYN RD @ SHEA RD

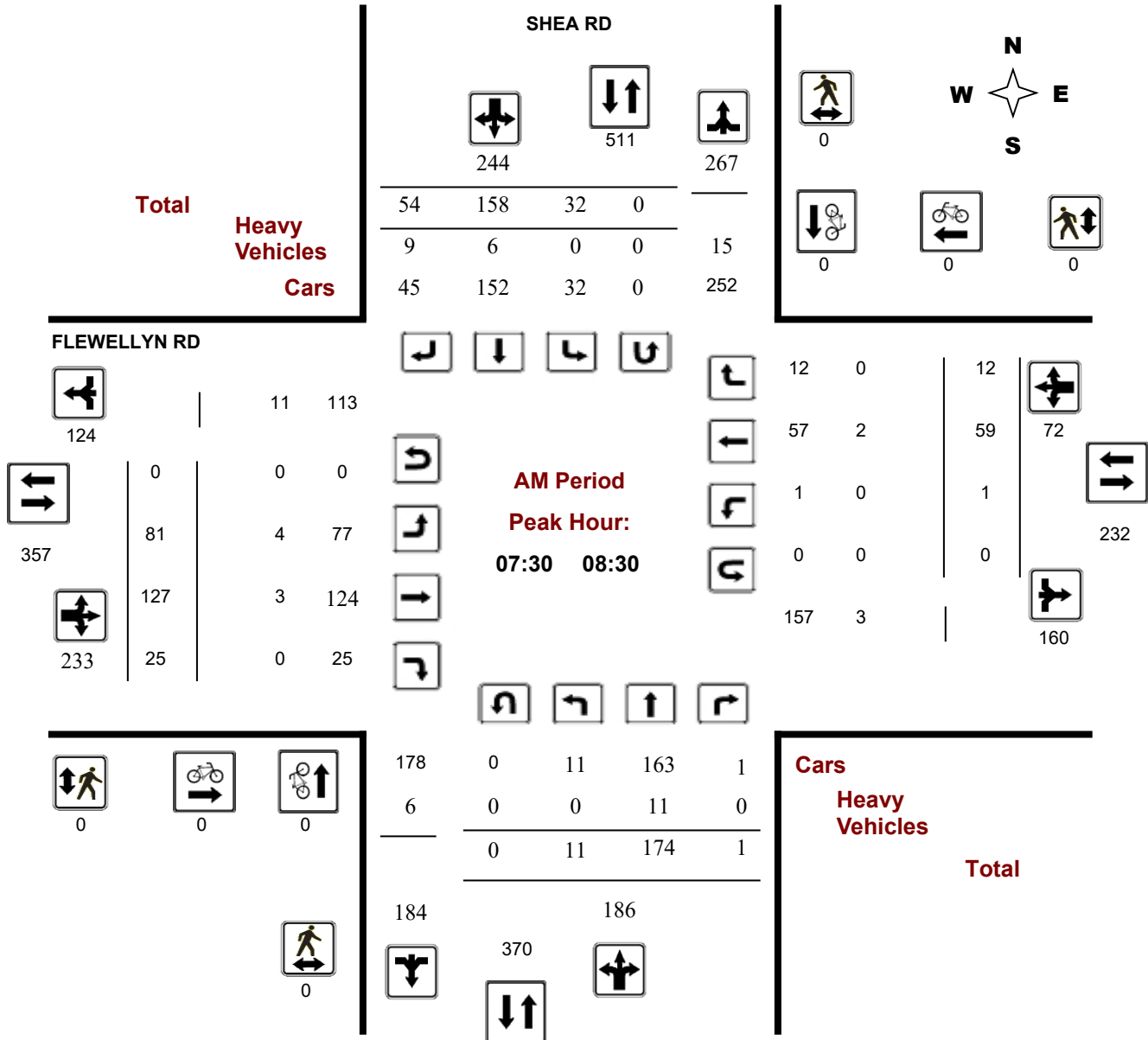
Survey Date: Wednesday, February 26, 2025

WO No: 42646

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



Turning Movement Count - Study Results

FLEWELLYN RD @ SHEA RD

Survey Date: Wednesday, February 26, 2025

WO No:

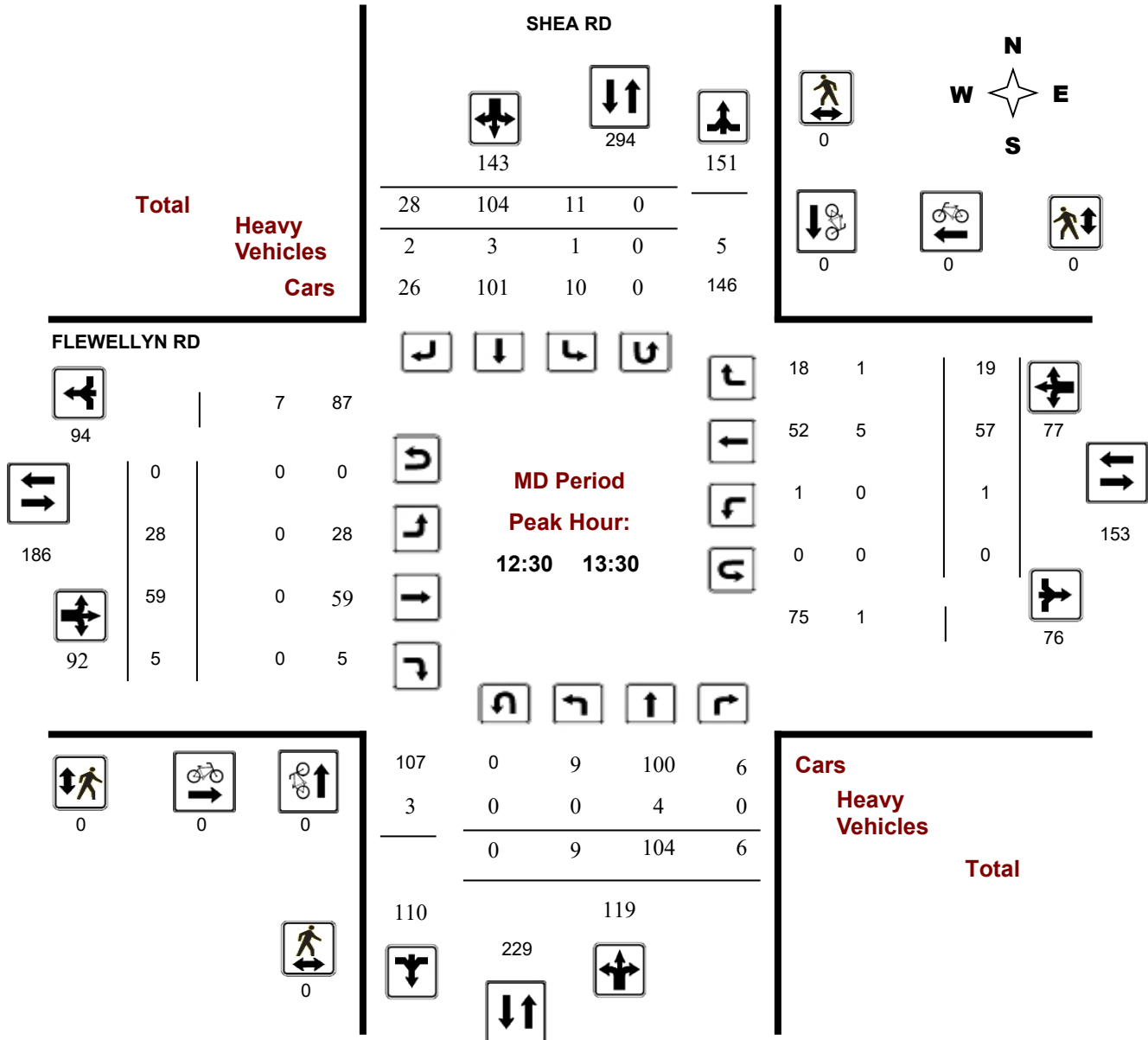
42646

Start Time: 07:00

Device:

Miovision

MD Period Peak Hour Diagram



Turning Movement Count - Study Results

FLEWELLYN RD @ SHEA RD

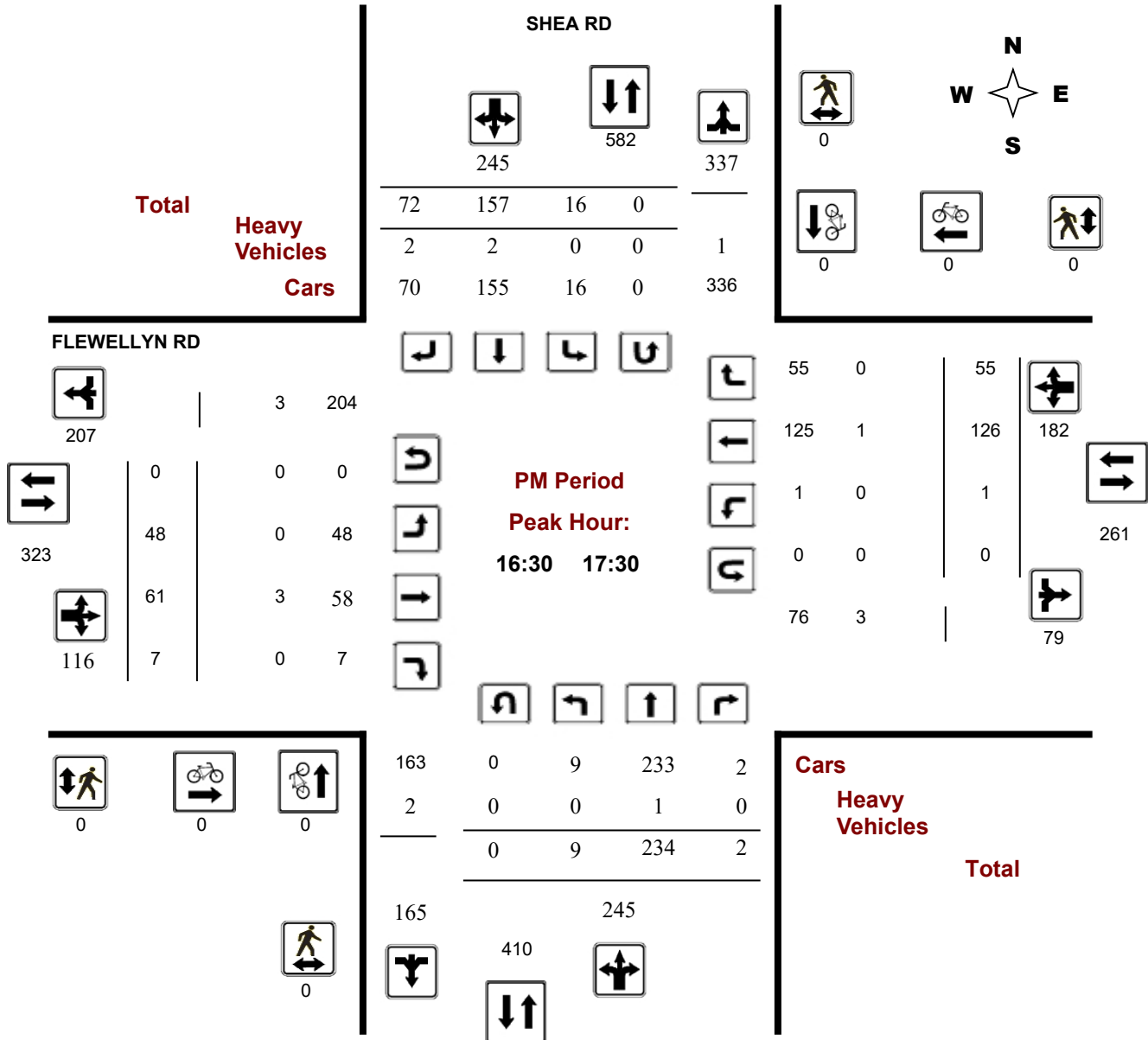
Survey Date: Wednesday, February 26, 2025

WO No: 42646

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FLEWELLYN RD @ SHEA RD

Survey Date: Wednesday, February 26, 2025

WO No: 42646

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, February 26, 2025

Total Observed U-Turns

Northbound: 0 Southbound: 0
Eastbound: 0 Westbound: 0

AADT Factor

1.00

SHEA RD										FLEWELLYN RD												Grand Total
Period	Northbound				Southbound				STR TOT	Eastbound				Westbound				STR TOT				
	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT		LT	ST	RT	EB TOT	LT	ST	RT	WB TOT					
07:00	08:00	8	150	2	160	27	138	29	194	354	71	129	25	225	0	56	2	58	283	637		
08:00	09:00	14	174	3	191	34	145	47	226	417	65	90	12	167	1	67	16	84	251	668		
09:00	10:00	12	100	1	113	19	84	19	122	235	29	55	16	100	4	50	16	70	170	405		
11:30	12:30	12	92	4	108	8	81	29	118	226	26	47	4	77	3	56	9	68	145	371		
12:30	13:30	9	104	6	119	11	104	28	143	262	28	59	5	92	1	57	19	77	169	431		
15:00	16:00	18	176	4	198	15	168	60	243	441	36	55	15	106	7	128	33	168	274	715		
16:00	17:00	9	193	1	203	14	141	100	255	458	49	52	12	113	1	126	66	193	306	764		
17:00	18:00	11	222	1	234	13	154	49	216	450	57	68	4	129	0	122	52	174	303	753		
Sub Total		93	1211	22	1326	141	1015	361	1517	2843	361	555	93	1009	17	662	213	892	1901	4744		
U Turns		0				0				0	0				0				0	0	0	
Total		93	1211	22	1326	141	1015	361	1517	2843	361	555	93	1009	17	662	213	892	1901	4744		
EQ 12Hr		129	1683	31	1843	196	1411	502	2109	3952	502	771	129	1403	24	920	296	1240	2642	6594		
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.															1.39							
AVG 12Hr		129	1683	31	1843	196	1848	657	2109	3952	502	771	129	1403	24	920	296	1240	2642	6594		
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.															1.00							
AVG 24Hr		169	2205	41	2414	257	2421	861	2763	5177	658	1010	169	1838	31	1205	388	1624	3461	8638		
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

FLEWELLYN RD @ SHEA RD

Survey Date: Wednesday, February 26, 2025

WO No: 42646

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

SHEA RD

FLEWELLYN RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total	
07:00	07:15	2	24	2	28	4	23	2	29	57	9	26	4	39	0	12	0	12	51	108
07:15	07:30	3	36	0	39	11	31	5	47	86	12	34	3	49	0	15	2	17	66	152
07:30	07:45	0	39	0	39	10	55	9	74	113	19	39	12	70	0	18	0	18	88	201
17:45	18:00	1	46	0	47	3	30	8	41	88	19	15	2	36	0	37	20	57	93	181
07:45	08:00	3	51	0	54	2	29	13	44	98	31	30	6	67	0	11	0	11	78	176
08:00	08:15	1	43	1	45	13	43	22	78	123	12	24	5	41	1	14	6	21	62	185
08:15	08:30	7	41	0	48	7	31	10	48	96	19	34	2	55	0	16	6	22	77	173
08:30	08:45	3	33	0	36	7	38	6	51	87	14	19	3	36	0	20	0	20	56	143
08:45	09:00	3	57	2	62	7	33	9	49	111	20	13	2	35	0	17	4	21	56	167
09:00	09:15	1	17	1	19	7	25	3	35	54	7	18	6	31	2	11	5	18	49	103
09:15	09:30	1	28	0	29	7	22	11	40	69	10	20	4	34	2	15	4	21	55	124
09:30	09:45	3	31	0	34	3	17	3	23	57	5	11	4	20	0	15	4	19	39	96
09:45	10:00	7	24	0	31	2	20	2	24	55	7	6	2	15	0	9	3	12	27	82
11:30	11:45	4	25	0	29	1	24	7	32	61	9	11	1	21	0	18	3	21	42	103
11:45	12:00	2	17	2	21	2	19	5	26	47	7	12	1	20	2	10	2	14	34	81
12:00	12:15	1	33	1	35	3	17	6	26	61	5	10	2	17	0	12	1	13	30	91
12:15	12:30	5	17	1	23	2	21	11	34	57	5	14	0	19	1	16	3	20	39	96
12:30	12:45	2	21	3	26	1	24	11	36	62	7	17	1	25	1	12	5	18	43	105
12:45	13:00	2	37	1	40	1	28	3	32	72	12	13	1	26	0	13	5	18	44	116
13:00	13:15	3	27	2	32	4	24	7	35	67	4	21	2	27	0	13	7	20	47	114
13:15	13:30	2	19	0	21	5	28	7	40	61	5	8	1	14	0	19	2	21	35	96
15:00	15:15	5	40	1	46	3	44	10	57	103	9	12	4	25	1	17	6	24	49	152
15:15	15:30	4	42	1	47	1	43	10	54	101	13	17	6	36	4	19	12	35	71	172
15:30	15:45	5	51	2	58	3	41	17	61	119	8	15	2	25	0	42	3	45	70	189
15:45	16:00	4	43	0	47	8	40	23	71	118	6	11	3	20	2	50	12	64	84	202
16:00	16:15	1	38	0	39	3	29	33	65	104	17	12	3	32	0	31	16	47	79	183
16:15	16:30	5	42	0	47	4	30	22	56	103	10	12	3	25	0	28	13	41	66	169
16:30	16:45	2	63	1	66	4	42	27	73	139	9	14	3	26	1	29	10	40	66	205
16:45	17:00	1	50	0	51	3	40	18	61	112	13	14	3	30	0	38	27	65	95	207
17:00	17:15	2	56	0	58	4	32	13	49	107	8	18	0	26	0	36	7	43	69	176
17:15	17:30	4	65	1	70	5	43	14	62	132	18	15	1	34	0	23	11	34	68	200
17:30	17:45	4	55	0	59	1	49	14	64	123	12	20	1	33	0	26	14	40	73	196
Total:		93	1211	22	1326	141	1015	361	1517	2843	361	555	93	1009	17	662	213	892	1901	4,744

Note: U-Turns are included in Totals, cyclist volume is not included in totals. For cyclist volumes refer to Cyclist Volume report.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FLEWELLYN RD @ SHEA RD

Survey Date: Wednesday, February 26, 2025

WO No: 42646

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

		SHEA RD			FLEWELLYN RD			Grand Total
Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street 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
17:45	18:00	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
Total		0	0	0	0	0	0	0



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FLEWELLYN RD @ SHEA RD

Survey Date: Wednesday, February 26, 2025

WO No: 42646

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

SHEA RD				FLEWELLYN RD			
Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	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
17:45 18:00	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
Total	0	0	0	0	0	0	0



Transportation Services - Traffic Services

Turning Movement Count - Study Results

FLEWELLYN RD @ SHEA RD

Survey Date: Wednesday, February 26, 2025

WO No: 42646

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

SHEA RD										FLEWELLYN RD										
Northbound					Southbound					Eastbound					Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	1	1	0	2	0	1	0	1	3	1	2	0	3	0	1	0	1	4	7
07:15	07:30	0	1	0	1	1	1	1	3	4	2	1	0	3	0	0	0	0	3	7
07:30	07:45	0	6	0	6	0	1	0	1	7	1	1	0	2	0	1	0	1	3	10
17:45	18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	2
07:45	08:00	0	2	0	2	0	2	2	4	6	2	0	0	2	0	0	0	0	2	8
08:00	08:15	0	2	0	2	0	3	5	8	10	0	1	0	1	0	0	0	0	1	11
08:15	08:30	0	1	0	1	0	0	2	2	3	1	1	0	2	0	1	0	1	3	6
08:30	08:45	0	2	0	2	0	1	1	2	4	1	0	0	1	0	2	0	2	3	7
08:45	09:00	0	1	0	1	0	0	1	1	2	3	1	0	4	0	1	0	1	5	7
09:00	09:15	0	0	0	0	0	2	2	4	4	0	0	0	0	0	0	0	0	0	4
09:15	09:30	0	0	0	0	0	1	0	1	1	0	1	0	1	0	0	0	0	1	2
09:30	09:45	0	4	0	4	0	0	0	0	4	0	0	0	0	0	1	0	1	1	5
09:45	10:00	0	2	0	2	1	0	0	1	3	0	0	0	0	0	0	0	0	0	3
11:30	11:45	1	4	0	5	0	2	0	2	7	1	1	0	2	0	0	0	0	2	9
11:45	12:00	0	2	0	2	0	1	0	1	3	0	2	0	2	0	0	0	0	2	5
12:00	12:15	0	3	0	3	0	0	1	1	4	0	0	0	0	0	0	0	0	0	4
12:15	12:30	0	0	0	0	0	1	0	1	1	0	1	0	1	0	1	0	1	2	3
12:30	12:45	0	1	0	1	0	2	1	3	4	0	0	0	0	0	2	0	2	2	6
12:45	13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
13:00	13:15	0	0	0	0	0	1	0	1	1	0	0	0	0	0	1	1	2	2	3
13:15	13:30	0	3	0	3	1	0	1	2	5	0	0	0	0	0	1	0	1	1	6
15:00	15:15	1	3	0	4	0	0	0	0	4	1	0	0	1	0	1	0	1	2	6
15:15	15:30	0	0	0	0	0	2	0	2	2	1	1	0	2	0	0	0	0	2	4
15:30	15:45	0	1	0	1	0	0	1	1	2	0	0	0	0	0	0	0	0	0	2
15:45	16:00	0	1	0	1	1	1	2	4	5	0	2	0	2	0	1	0	1	3	8
16:00	16:15	0	1	0	1	0	0	1	1	2	1	0	0	1	0	1	0	1	2	4
16:15	16:30	0	0	0	0	0	1	0	1	1	2	0	2	4	0	0	0	0	4	5
16:30	16:45	0	0	0	0	0	0	2	2	2	0	1	0	1	0	0	0	0	1	3
16:45	17:00	0	1	0	1	0	1	0	1	2	0	1	0	1	0	0	0	0	1	3
17:00	17:15	0	0	0	0	0	1	0	1	1	0	1	0	1	0	0	0	0	1	2
17:15	17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
17:30	17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total:	None	3	42	0	45	4	25	23	52	97	17	18	2	37	0	18	2	20	57	154

Transportation Services - Traffic Services

Turning Movement Count - Study Results

FLEWELLYN RD @ SHEA RD

Survey Date: Wednesday, February 26, 2025

WO No: 42646

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

SHEA RD

FLEWELLYN RD

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

Appendix B Signal Timing Plan



Traffic Signal Timing

City of Ottawa, Public Works Department

Traffic Signal Operations Unit

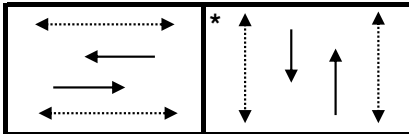
Intersection:	<i>Main:</i> Hazeldean	<i>Side:</i> West Ridge / Kittiwake
Controller:	ATC 3	TSD: 6741
Author:	Kymen Kwan	Date: 12-Aug-2025

Existing Timing Plans[†]

	Plan				Ped Minimum Time		
	AM Peak 1	Off Peak 2	PM Peak 3	Night 4	Walk	DW	A+R
Cycle	85	85	85	75			
Offset	X	X	X	X			
EB Thru	48	48	48	38	7	23	3.7+2.6
WB Thru	48	48	48	38	7	23	3.7+2.6
NB Thru	37	37	37	37	7	14	3.0+3.1
SB Thru	37	37	37	37	7	14	3.0+3.1

Phasing Sequence[‡]

Plan: All



Schedule

Weekday		Saturday		Sunday	
Time	Plan	Time	Plan	Time	Plan
0:10	4	0:10	4	0:10	4
6:30	1	9:00	2	8:00	2
9:30	2	22:30	4	22:30	4
15:00	3				
19:00	2				
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 \$63.94 (\$56.58 + HST)

Traffic Signal Timing

City of Ottawa, Public Works Department

Traffic Signal Operations Unit

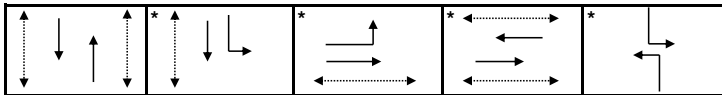
Intersection:	Main: Carp	Side: Hazeldean
Controller:	MS 3200	TSD: 5639
Author:	Kymen Kwan	Date: 12-Aug-2025

Existing Timing Plans†

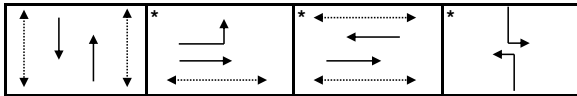
	Plan				Ped Minimum Time		
	AM Peak 1	Off Peak 2	PM Peak 3	Night 4	Walk	DW	A+R
Cycle	125	130	130	85			
Offset	114	41	129	X			
NB Thru	33	33	34	33	7	19	3.7+2.4
SB Thru	54	33	53	33	7	19	3.7+2.4
SB Left (fp)	21	-	-	-	-	-	3.7+2.3
EB Left	15	16	13	-	-	-	3.7+2.5
EB Thru	55	56	58	40	7	26	3.7+2.9
WB Thru	40	40	45	40	7	26	3.7+2.9
NB Left (fp)	16	41	19	12	-	-	3.7+2.3
SB Left (fp)	16	41	38	12	-	-	3.7+2.3

Phasing Sequence‡

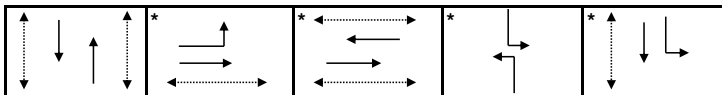
Plan: 1



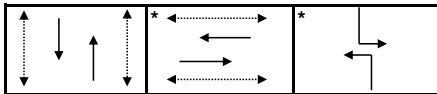
Plan: 2



Plan: 3



Plan: 4



Schedule

Weekday

Time	Plan
0:10	4
6:30	1
9:30	2
15:00	3
19:00	2
23:00	4

Saturday

Time	Plan
0:10	4
9:00	2
22:30	4

Sunday

Time	Plan
0:10	4
8:00	2
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 \$63.94 (\$56.58 + HST)

Traffic Signal Timing

City of Ottawa, Public Works Department

Traffic Signal Operations Unit

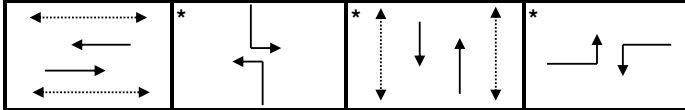
Intersection:	<i>Main:</i> Hazeldean	<i>Side:</i> Stittsville Main
Controller:	ATC 3	TSD: 6641
Author:	Kymen Kwan	Date: 12-Aug-2025

Existing Timing Plans†

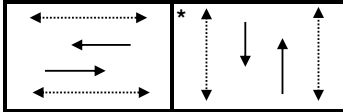
	Plan					Ped Minimum Time		
	AM Peak 1	Off Peak 2	PM Peak 3	Night 4	Saturday 12	Walk	DW	A+R
Cycle	115	120	120	85	115			
Offset	85	X	113	X	X			
EB Thru	47	42	42	45	42	7	23	3.7+3.0
WB Thru	47	42	42	45	42	7	23	3.7+3.0
NB Left	19	16	19	-	16	-	-	3.3+3.0
SB Left	19	16	19	-	16	-	-	3.3+3.0
NB Thru	37	37	37	40	37	7	23	3.3+3.6
SB Thru	37	37	37	40	37	7	23	3.3+3.6
EB Left	12	25	22	-	20	-	-	3.7+2.8
WB Left	12	25	22	-	20	-	-	3.7+2.8

Phasing Sequence‡

Plan: 1, 2, 3, 12



Plan: 4



Schedule

Weekday		Saturday		Sunday	
Time	Plan	Time	Plan	Time	Plan
0:10	4	0:10	4	0:10	4
6:30	1	9:00	12	8:00	2
9:30	2	22:30	4	22:30	4
15:00	3				
19:00	2				
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 \$63.94 (\$56.58 + HST)

Traffic Signal Timing

City of Ottawa, Public Works Department

Traffic Signal Operations Unit

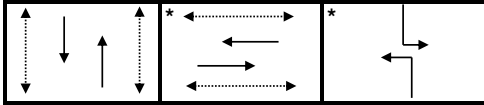
Intersection:	<i>Main:</i> Stittsville Main	<i>Side:</i> Carp
Controller:	ATC 3	TSD: 6045
Author:	Kymen Kwan	Date: 12-Aug-2025

Existing Timing Plans†

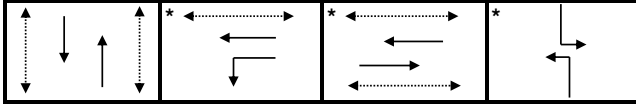
	Plan				Ped Minimum Time		
	AM Peak 1	Off Peak 2	PM Peak 3	Night 4	Walk	DW	A+R
Cycle	80	90	90	60			
Offset	0	2	2	X			
NB Thru	35	33	32	31	7	17	3.3+2.2
SB Thru	35	33	32	31	7	17	3.3+2.2
WB Left	-	13	15	-	-	-	3.3+1.8
EB Thru	30	29	29	29	7	16	3.3+1.8
WB Thru	30	42	44	29	7	16	3.3+1.8
NB Left	15	15	14	-	-	-	3.3+2.2
SB Left	15	15	14	-	-	-	3.3+2.2

Phasing Sequence*

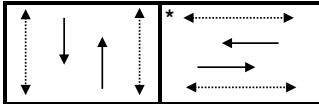
Plan: 1



Plan: 2, 3



Plan: 4



Schedule

Weekday

Time	Plan
0:10	4
6:30	1
9:30	2
15:00	3
18:30	2
22:00	4

Saturday

Time	Plan
0:10	4
9:00	2
10:30	3
18:30	2
22:00	4

Sunday

Time	Plan
0:10	4
8:00	2
11:00	3
18:30	2
22:00	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 \$63.94 (\$56.58 + HST)

Traffic Signal Timing

City of Ottawa, Public Works Department

Traffic Signal Operations Unit

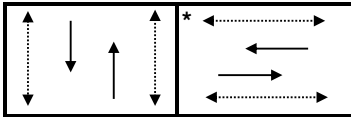
Intersection:	Main: Stittsville Main	Side: Abbott
Controller:	ATC 3	TSD: 6043
Author:	Kymen Kwan	Date: 12-Aug-2025

Existing Timing Plans†

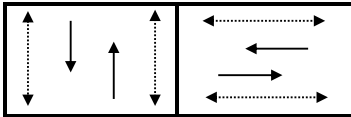
	Plan						Ped Minimum Time		
	AM Peak	Off Peak	PM Peak	Night	Weekend	Weekend	Walk	DW	A+R
	1	2	3	4	11	13			
Cycle	80	90	90	60	80	90			
Offset	7	84	9	X	7	9			
NB Thru	49	54	57	29	49	57	7	16	3.3+1.9
SB Thru	49	54	57	29	49	57	7	16	3.3+1.9
EB Thru	31	36	33	31	31	33	7	18	3.3+2.0
WB Thru	31	36	33	31	31	33	7	18	3.3+2.0

Phasing Sequence‡

Plan: 1, 2, 3, 4



Plan: 11, 13



Schedule

Weekday		Weekend	
Time	Plan	Time	Plan
0:10	4	0:10	4
6:30	1	8:00	13
7:25	11	21:00	4
8:00	1		
9:30	2		
14:00	13		
15:00	3		
18:30	2		
20:00	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 \$62.38 (\$55.20 + HST)

Traffic Signal Timing

City of Ottawa, Public Works Department

Traffic Signal Operations Unit

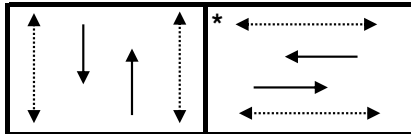
Intersection:	<i>Main:</i> Stittsville Main	<i>Side:</i> Fernbank
Controller:	MS 3200	TSD: 6607
Author:	Kymen Kwan	Date: 12-Aug-2025

Existing Timing Plans[†]

	Plan				Ped Minimum Time		
	AM Peak 1	Off Peak 2	PM Peak 3	Night 4	Walk	DW	A+R
Cycle	81.5	66.5	84.5	66.5			
Offset	X	X	X	X			
NB Thru	46.9	31.9	46.9	31.9	7	9	3.3+3.6
SB Thru	46.9	31.9	46.9	31.9	7	9	3.3+3.6
EB Thru	34.6	34.6	37.6	34.6	7	12	3.0+4.6
WB Thru	34.6	34.6	37.6	34.6	7	12	3.0+4.6

Phasing Sequence[‡]

Plan: All



Schedule

Weekday

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

Weekend

Time	Plan
0:15	4
8:30	2
20:00	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 \$63.94 (\$56.58 + HST)

Traffic Signal Timing

City of Ottawa, Public Works Department

Traffic Signal Operations Unit

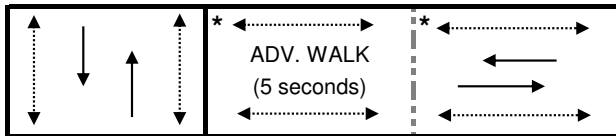
Intersection:	<i>Main:</i> Stittsville Main	<i>Side:</i> West Ridge / Parade
Controller:	ATC 3	TSD: 6607
Author:	Kymen Kwan	Date: 12-Aug-2025

Existing Timing Plans[†]

	Plan				Ped Minimum Time		
	AM Peak 1	Off Peak 2	PM Peak 3	Night 4	Walk	DW	A+R
Cycle	92.5	82.5	92.5	82.5			
Offset	X	X	X	X			
NB Thru	59	49	59	49	10	13	3.3+2.7
SB Thru	59	49	59	49	10	13	3.3+2.7
EB Thru	33.5	33.5	33.5	33.5	7	16	3.0+3.5
WB Thru	33.5	33.5	33.5	33.5	7	16	3.0+3.5

Phasing Sequence[‡]

Plan: All



Schedule

Weekday

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

Weekend

Time	Plan
0:15	4
6:30	2
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 \$63.94 (\$56.58 + HST)

Traffic Signal Timing

City of Ottawa, Public Works Department

Traffic Signal Operations Unit

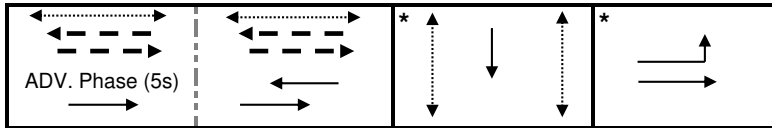
Intersection:	Main: Fernbank	Side: Robert Grant
Controller:	ATC 3	TSD: 6827
Author:	Kymen Kwan	Date: 13-Aug-2025

Existing Timing Plans†

	Plan					Ped Minimum Time		
	AM Peak 1	Off Peak 2	PM Peak 3	Night 4	Weekend 5	Walk	DW	A+R
Cycle	103	95	103	73	103			
Offset	X	X	X	X	X			
EB Thru	35	35	35	28	35	-	-	4.6+1.6
WB Thru	35	35	35	28	35	7	10	4.6+1.6
SB Thru	40	32	40	30	40	7	17	3.3+2.7
EB Left (fp)	28	28	28	15	28	-	-	4.6+1.6

Phasing Sequence‡

Plan: All



Notes: 1) During the Advance Phase, the WB Thru movement displays a thru arrow for 5 seconds. This is followed by the green ball display. The EB Thru movement is not affected by the Advance Phase

Schedule

Weekday

Time	Plan
0:10	4
6:20	1
9:30	2
15:00	3
19:00	2
23:00	4

Saturday

Time	Plan
0:10	4
9:00	2
11:00	5
21:30	2
22:30	4

Sunday

Time	Plan
0:10	4
8:00	2
11:00	3
21:30	2
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 \$63.94 (\$56.58 + HST)

Appendix C Synchro Outputs – Existing 2025



Lanes, Volumes, Timings
1: West Ridge Drive & Hazeldean Road

Existing 2025 - AM

10/07/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	225	26	69	96	14	45	16	253	21	10	3
Future Volume (vph)	8	225	26	69	96	14	45	16	253	21	10	3
Satd. Flow (prot)	1729	1759	0	1712	1709	0	0	1704	1547	1729	1762	0
Flt Permitted	0.678			0.588				0.775		0.713		
Satd. Flow (perm)	1234	1759	0	1060	1709	0	0	1369	1547	1298	1762	0
Satd. Flow (RTOR)		10			12				281		3	
Lane Group Flow (vph)	9	279	0	77	123	0	0	68	281	23	14	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8		8	4		
Detector Phase	2	2		6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	36.3	36.3		36.3	36.3		27.1	27.1	27.1	27.1	27.1	
Total Split (s)	48.0	48.0		48.0	48.0		37.0	37.0	37.0	37.0	37.0	
Total Split (%)	56.5%	56.5%		56.5%	56.5%		43.5%	43.5%	43.5%	43.5%	43.5%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.6	2.6		2.6	2.6		3.1	3.1	3.1	3.1	3.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.3	6.3		6.3	6.3			6.1	6.1	6.1	6.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None	None	None	None	
Act Effect Green (s)	42.5	42.5		42.5	42.5			10.7	10.7	10.7	10.7	
Actuated g/C Ratio	0.65	0.65		0.65	0.65			0.16	0.16	0.16	0.16	
v/c Ratio	0.01	0.24		0.11	0.11			0.31	0.58	0.11	0.05	
Control Delay (s/veh)	4.6	5.5		5.2	4.5			27.7	8.8	24.1	20.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay (s/veh)	4.6	5.5		5.2	4.5			27.7	8.8	24.1	20.7	
LOS	A	A		A	A			C	A	C	C	
Approach Delay (s/veh)		5.5			4.8			12.5			22.8	
Approach LOS		A			A			B			C	
Queue Length 50th (m)	0.3	11.0		2.9	4.1			7.3	0.0	2.4	1.1	
Queue Length 95th (m)	1.8	23.4		8.2	10.5			17.1	17.3	7.9	5.2	
Internal Link Dist (m)		1946.8			547.5			1603.9			236.0	
Turn Bay Length (m)	65.0			110.0						35.0		
Base Capacity (vph)	799	1143		686	1111			644	877	611	831	
Starvation Cap Reductn	0	0		0	0			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.01	0.24		0.11	0.11			0.11	0.32	0.04	0.02	
Intersection Summary												
Cycle Length: 85												
Actuated Cycle Length: 65.6												
Natural Cycle: 65												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.58												

Lanes, Volumes, Timings

1: West Ridge Drive & Hazeldean Road

Existing 2025 - AM

10/07/2025

Intersection Signal Delay (s/veh): 8.9

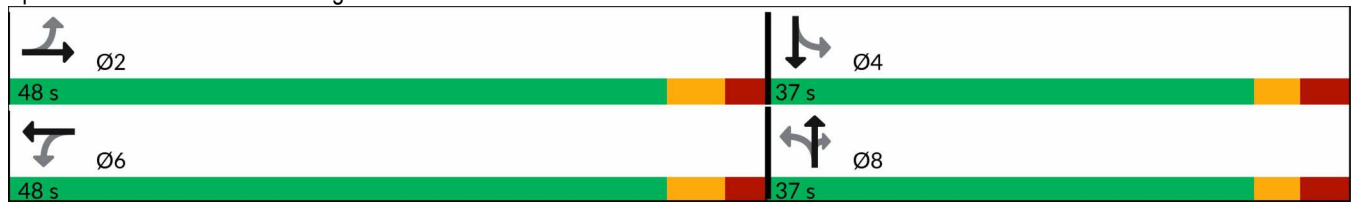
Intersection LOS: A

Intersection Capacity Utilization 54.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: West Ridge Drive & Hazeldean Road



Lanes, Volumes, Timings
2: Carp Road & Hazeldean Road

Existing 2025 - AM

10/07/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	267	289	68	23	159	233	38	351	11	235	275	64
Future Volume (vph)	267	289	68	23	159	233	38	351	11	235	275	64
Satd. Flow (prot)	1679	3077	0	1530	1640	1432	1601	3212	0	1544	1701	1300
Flt Permitted	0.412			0.518			0.950			0.950		
Satd. Flow (perm)	725	3077	0	832	1640	1405	1591	3212	0	1542	1701	1261
Satd. Flow (RTOR)		27				259		2				138
Lane Group Flow (vph)	297	397	0	26	177	259	42	402	0	261	306	71
Turn Type	pm+pt	NA		Perm	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	4			8		5	2		19	6	
Permitted Phases	4			8		8						6
Detector Phase	7	4		8	8	8	5	2		19	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0	10.0	5.0	10.0			10.0	10.0
Minimum Split (s)	11.2	39.6		39.6	39.6	39.6	11.0	32.1			32.1	32.1
Total Split (s)	15.0	55.0		40.0	40.0	40.0	16.0	33.0			54.0	54.0
Total Split (%)	12.0%	44.0%		32.0%	32.0%	32.0%	12.8%	26.4%			43.2%	43.2%
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	3.7	3.7			3.7	3.7
All-Red Time (s)	2.5	2.9		2.9	2.9	2.9	2.3	2.4			2.4	2.4
Lost Time Adjust (s)	-2.0	0.0		0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)	4.2	6.6		6.6	6.6	6.6	6.0	6.1			6.1	6.1
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag			Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes			Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Max			C-Max	C-Max
Act Effect Green (s)	36.5	34.1		19.1	19.1	19.1	8.7	35.3		30.9	65.7	65.7
Actuated g/C Ratio	0.29	0.27		0.15	0.15	0.15	0.07	0.28		0.25	0.53	0.53
v/c Ratio	1.01	0.46		0.20	0.71	0.60	0.38	0.44		0.69	0.34	0.10
Control Delay (s/veh)	95.7	36.1		47.5	64.8	11.1	64.3	40.3		31.6	21.0	0.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	95.7	36.1		47.5	64.8	11.1	64.3	40.3		31.6	21.0	0.3
LOS	F	D		D	E	B	E	D		C	C	A
Approach Delay (s/veh)		61.6			33.7			42.5			23.0	
Approach LOS		E			C			D			C	
Queue Length 50th (m)	~64.5	40.0		5.7	42.0	0.0	10.1	42.8		27.0	43.5	0.0
Queue Length 95th (m)	#105.7	50.3		13.5	61.7	22.4	21.3	63.3		48.5	76.7	0.0
Internal Link Dist (m)		547.5			891.6			724.2			1541.5	
Turn Bay Length (m)	90.0			65.0			45.0			85.0		
Base Capacity (vph)	294	1207		222	438	565	133	908		381	894	728
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	1.01	0.33		0.12	0.40	0.46	0.32	0.44		0.69	0.34	0.10

Intersection Summary

Cycle Length: 125

Actuated Cycle Length: 125

Offset: 114 (91%), Referenced to phase 2:NBT and 6:SBT, Start of Green

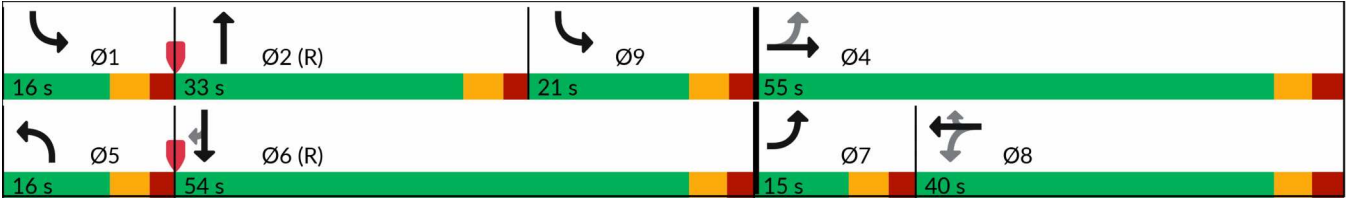
Natural Cycle: 105

Control Type: Actuated-Coordinated

Lane Group	Ø1	Ø9
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	1	9
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	11.0	11.0
Total Split (s)	16.0	21.0
Total Split (%)	13%	17%
Yellow Time (s)	3.7	3.7
All-Red Time (s)	2.3	2.3
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?	Yes	
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		
Approach LOS		
Queue Length 50th (m)		
Queue Length 95th (m)		
Internal Link Dist (m)		
Turn Bay Length (m)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Maximum v/c Ratio: 1.01	
Intersection Signal Delay (s/veh): 41.1	Intersection LOS: D
Intersection Capacity Utilization 81.8%	ICU Level of Service D
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: 2: Carp Road & Hazeldean Road



Lanes, Volumes, Timings
3: Stittsville Main Street & Hazeldean Road

Existing 2025 - AM

10/07/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	416	20	205	358	153	46	38	289	266	53	36
Future Volume (vph)	30	416	20	205	358	153	46	38	289	266	53	36
Satd. Flow (prot)	1679	3274	0	1712	3058	0	1729	1767	1517	1695	1670	1502
Flt Permitted	0.439			0.388			0.719			0.514		
Satd. Flow (perm)	774	3274	0	699	3058	0	1307	1767	1481	907	1670	1478
Satd. Flow (RTOR)		5			64				287			157
Lane Group Flow (vph)	33	484	0	228	568	0	51	42	321	296	59	40
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.5	36.7		11.5	36.5		11.3	36.9	36.9	11.3	36.9	36.9
Total Split (s)	12.0	47.0		12.0	47.0		19.0	37.0	37.0	19.0	37.0	37.0
Total Split (%)	10.4%	40.9%		10.4%	40.9%		16.5%	32.2%	32.2%	16.5%	32.2%	32.2%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	3.0		2.8	2.8		3.0	3.6	3.6	3.0	3.6	3.6
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)	6.5	6.7		6.5	6.5		6.3	6.9	6.9	6.3	6.9	6.9
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effect Green (s)	58.0	51.3		70.0	62.0		21.1	12.5	12.5	30.3	19.6	19.6
Actuated g/C Ratio	0.50	0.45		0.61	0.54		0.18	0.11	0.11	0.26	0.17	0.17
v/c Ratio	0.07	0.33		0.43	0.34		0.19	0.22	0.77	0.91	0.21	0.10
Control Delay (s/veh)	11.4	22.4		13.5	15.4		31.7	47.9	21.3	69.9	44.4	0.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	11.4	22.4		13.5	15.4		31.7	47.9	21.3	69.9	44.4	0.6
LOS	B	C		B	B		C	D	C	E	D	A
Approach Delay (s/veh)		21.7			14.9			25.3			59.1	
Approach LOS		C			B			C			E	
Queue Length 50th (m)	2.6	34.3		20.2	33.3		8.8	9.0	7.3	60.2	12.2	0.0
Queue Length 95th (m)	8.0	57.5		40.3	56.3		16.3	18.2	34.7	#89.9	22.9	0.0
Internal Link Dist (m)		891.6			2777.7			546.2			989.0	
Turn Bay Length (m)	55.0			300.0			50.0		35.0	55.0		110.0
Base Capacity (vph)	441	1464		531	1678		339	462	599	325	437	502
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	0.07	0.33		0.43	0.34		0.15	0.09	0.54	0.91	0.14	0.08

Intersection Summary

Cycle Length: 115

Actuated Cycle Length: 115

Offset: 85 (74%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Lanes, Volumes, Timings

3: Stittsville Main Street & Hazeldean Road

Existing 2025 - AM
10/07/2025

Maximum v/c Ratio: 0.91

Intersection Signal Delay (s/veh): 26.8

Intersection LOS: C

Intersection Capacity Utilization 78.5%

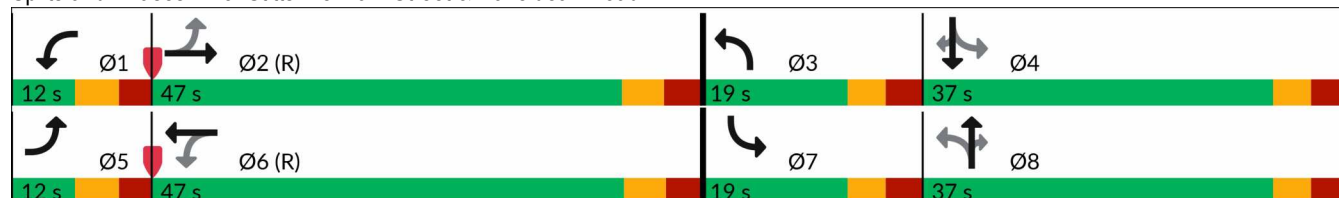
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Stittsville Main Street & Hazeldean Road



Lanes, Volumes, Timings
4: Stittsville Main Street & Carp Road

Existing 2025 - AM

10/07/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	85	261	122	70	60	331	334	155	60	253	25
Future Volume (vph)	50	85	261	122	70	60	331	334	155	60	253	25
Satd. Flow (prot)	1662	1802	1473	1662	1627	0	1601	1673	0	1729	1767	1432
Flt Permitted	0.637			0.696			0.475			0.423		
Satd. Flow (perm)	1113	1802	1436	1212	1627	0	798	1673	0	768	1767	1410
Satd. Flow (RTOR)			290		56			33				104
Lane Group Flow (vph)	56	94	290	136	145	0	368	543	0	67	281	28
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		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)	28.1	28.1	28.1	28.1	28.1		10.5	29.5		10.5	29.5	29.5
Total Split (s)	30.0	30.0	30.0	30.0	30.0		15.0	35.0		15.0	35.0	35.0
Total Split (%)	37.5%	37.5%	37.5%	37.5%	37.5%		18.8%	43.8%		18.8%	43.8%	43.8%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8		2.2	2.2		2.2	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	5.1	5.1	5.1		5.5	5.5		5.5	5.5	5.5
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	C-Max
Act Effect Green (s)	14.7	14.7	14.7	14.7	14.7		54.6	44.8		43.2	36.6	36.6
Actuated g/C Ratio	0.18	0.18	0.18	0.18	0.18		0.68	0.56		0.54	0.46	0.46
v/c Ratio	0.27	0.28	0.58	0.61	0.42		0.55	0.57		0.14	0.35	0.04
Control Delay (s/veh)	29.8	28.9	8.5	41.2	20.8		9.1	13.1		6.9	17.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	29.8	28.9	8.5	41.2	20.8		9.1	13.1		6.9	17.4	0.1
LOS	C	C	A	D	C		A	B		A	B	A
Approach Delay (s/veh)		15.5			30.7			11.5			14.2	
Approach LOS		B			C			B			B	
Queue Length 50th (m)	7.5	12.5	0.0	19.3	11.9		17.3	39.3		2.8	26.6	0.0
Queue Length 95th (m)	15.9	22.6	17.5	33.5	25.0		34.4	61.0		8.2	51.6	0.0
Internal Link Dist (m)		724.2			101.6			1212.9			546.2	
Turn Bay Length (m)	40.0		55.0				75.0			60.0		50.0
Base Capacity (vph)	346	560	646	377	544		672	950		556	808	701
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.16	0.17	0.45	0.36	0.27		0.55	0.57		0.12	0.35	0.04
Intersection Summary												
Cycle Length: 80												
Actuated Cycle Length: 80												
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green												
Natural Cycle: 75												
Control Type: Actuated-Coordinated												

Lanes, Volumes, Timings
4: Stittsville Main Street & Carp Road

Existing 2025 - AM

10/07/2025

Maximum v/c Ratio: 0.61

Intersection Signal Delay (s/veh): 15.6

Intersection LOS: B

Intersection Capacity Utilization 74.7%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 4: Stittsville Main Street & Carp Road



Lanes, Volumes, Timings
5: Stittsville Main Street & Abbott Street

Existing 2025 - AM

10/07/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	95	21	45	40	106	10	584	73	58	337	13
Future Volume (vph)	35	95	21	45	40	106	10	584	73	58	337	13
Satd. Flow (prot)	1729	1662	0	1695	1522	0	1729	1750	1406	1491	1720	0
Flt Permitted	0.576			0.674			0.523			0.364		
Satd. Flow (perm)	1044	1662	0	1170	1522	0	942	1750	1368	570	1720	0
Satd. Flow (RTOR)		14			118				81		4	
Lane Group Flow (vph)	39	129	0	50	162	0	11	649	81	64	388	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	30.3	30.3		30.3	30.3		28.2	28.2	28.2	28.2	28.2	
Total Split (s)	31.0	31.0		31.0	31.0		49.0	49.0	49.0	49.0	49.0	
Total Split (%)	38.8%	38.8%		38.8%	38.8%		61.3%	61.3%	61.3%	61.3%	61.3%	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.9	1.9	1.9	1.9	1.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.3	5.3		5.3	5.3		5.2	5.2	5.2	5.2	5.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	
Act Effect Green (s)	11.9	11.9		11.9	11.9		57.6	57.6	57.6	57.6	57.6	
Actuated g/C Ratio	0.15	0.15		0.15	0.15		0.72	0.72	0.72	0.72	0.72	
v/c Ratio	0.25	0.50		0.29	0.50		0.02	0.52	0.08	0.16	0.31	
Control Delay (s/veh)	33.5	34.3		34.0	15.8		3.9	7.1	1.3	4.4	3.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	33.5	34.3		34.0	15.8		3.9	7.1	1.3	4.4	3.8	
LOS	C	C		C	B		A	A	A	A	A	
Approach Delay (s/veh)		34.1			20.1			6.4			3.9	
Approach LOS		C			C			A			A	
Queue Length 50th (m)	5.4	16.5		7.0	6.1		0.4	33.6	0.0	1.4	9.1	
Queue Length 95th (m)	13.2	30.6		15.8	21.3		1.9	68.3	3.7	5.5	22.4	
Internal Link Dist (m)		796.3			1191.9			1402.3			1212.9	
Turn Bay Length (m)	35.0			30.0			20.0			30.0		
Base Capacity (vph)	335	543		375	569		678	1260	1008	410	1240	
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	0.12	0.24		0.13	0.28		0.02	0.52	0.08	0.16	0.31	
Intersection Summary												
Cycle Length: 80												
Actuated Cycle Length: 80												
Offset: 7 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green												
Natural Cycle: 60												
Control Type: Actuated-Coordinated												

Lanes, Volumes, Timings 5: Stittsville Main Street & Abbott Street

Existing 2025 - AM
10/07/2025

Maximum v/c Ratio: 0.52

Intersection Signal Delay (s/veh): 10.5

Intersection LOS: B

Intersection Capacity Utilization 81.0%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 5: Stittsville Main Street & Abbott Street



Lanes, Volumes, Timings
6: Stittsville Main Street & Fernbank Road

Existing 2025 - AM

10/07/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	108	16	36	51	56	10	316	74	26	255	20
Future Volume (vph)	38	108	16	36	51	56	10	316	74	26	255	20
Satd. Flow (prot)	1679	1677	0	1679	1685	1419	1441	1665	0	1662	1696	0
Flt Permitted	0.720			0.669			0.574			0.504		
Satd. Flow (perm)	1271	1677	0	1178	1685	1400	869	1665	0	877	1696	0
Satd. Flow (RTOR)		10				62		20			7	
Lane Group Flow (vph)	42	138	0	40	57	62	11	433	0	29	305	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	26.6	26.6		26.6	26.6	26.6	24.9	24.9		24.9	24.9	
Total Split (s)	34.6	34.6		34.6	34.6	34.6	46.9	46.9		46.9	46.9	
Total Split (%)	42.5%	42.5%		42.5%	42.5%	42.5%	57.5%	57.5%		57.5%	57.5%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.3	3.3		3.3	3.3	
All-Red Time (s)	4.6	4.6		4.6	4.6	4.6	3.6	3.6		3.6	3.6	
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	7.6	6.9	6.9		6.9	6.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	
Act Effect Green (s)	11.3	11.3		11.3	11.3	11.3	44.7	44.7		44.7	44.7	
Actuated g/C Ratio	0.17	0.17		0.17	0.17	0.17	0.68	0.68		0.68	0.68	
v/c Ratio	0.19	0.46		0.20	0.20	0.21	0.02	0.38		0.05	0.26	
Control Delay (s/veh)	25.4	28.1		25.8	25.0	9.0	5.9	7.5		6.1	6.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	25.4	28.1		25.8	25.0	9.0	5.9	7.5		6.1	6.6	
LOS	C	C		C	C	A	A	A		A	A	
Approach Delay (s/veh)		27.5			18.9			7.4			6.6	
Approach LOS		C			B			A			A	
Queue Length 50th (m)	4.5	14.2		4.3	6.0	0.0	0.5	21.7		1.2	14.3	
Queue Length 95th (m)	12.0	28.8		11.7	14.7	8.5	2.3	45.1		4.5	30.3	
Internal Link Dist (m)		720.0			1542.6			664.4			1402.3	
Turn Bay Length (m)	50.0			100.0		70.0	70.0			130.0		
Base Capacity (vph)	526	700		487	697	616	594	1145		600	1162	
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	0.08	0.20		0.08	0.08	0.10	0.02	0.38		0.05	0.26	
Intersection Summary												
Cycle Length: 81.5												
Actuated Cycle Length: 65.3												
Natural Cycle: 55												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.46												

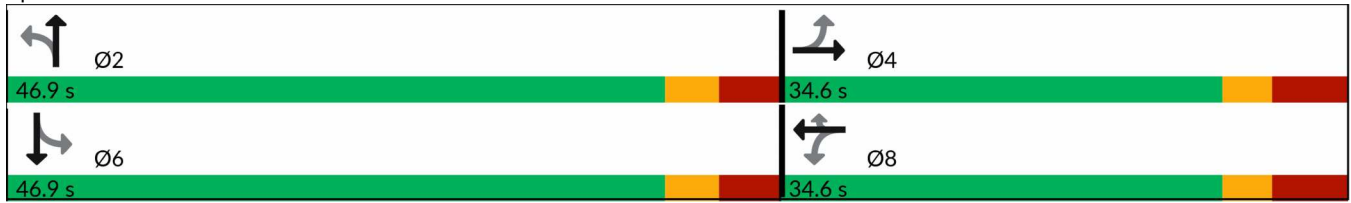
Lanes, Volumes, Timings
6: Stittsville Main Street & Fernbank Road

Existing 2025 - AM
10/07/2025

Intersection Signal Delay (s/veh): 12.1
Intersection Capacity Utilization 58.4%
Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service B

Splits and Phases: 6: Stittsville Main Street & Fernbank Road



Lanes, Volumes, Timings
7: Stittsville Main Street & West Ridge Drive

Existing 2025 - AM

10/07/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	4	39	19	5	40	34	251	18	22	177	16
Future Volume (vph)	19	4	39	19	5	40	34	251	18	22	177	16
Satd. Flow (prot)	1729	1534	0	1647	1538	0	1729	1712	0	1729	1655	1547
Flt Permitted	0.727			0.727			0.634			0.578		
Satd. Flow (perm)	1311	1534	0	1255	1538	0	1149	1712	0	1051	1655	1507
Satd. Flow (RTOR)		43			44			6				65
Lane Group Flow (vph)	21	47	0	21	50	0	38	299	0	24	197	18
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	29.5	29.5		29.5	29.5		29.0	29.0		29.0	29.0	29.0
Total Split (s)	29.5	29.5		29.5	29.5		58.0	58.0		58.0	58.0	58.0
Total Split (%)	31.9%	31.9%		31.9%	31.9%		62.7%	62.7%		62.7%	62.7%	62.7%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	3.5	3.5		3.5	3.5		2.7	2.7		2.7	2.7	2.7
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lag	Lag		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Max	Max		Max	Max	Max
Act Effect Green (s)	10.1	10.1		10.1	10.1		52.7	52.7		52.7	52.7	52.7
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.72	0.72		0.72	0.72	0.72
v/c Ratio	0.12	0.19		0.12	0.20		0.05	0.24		0.03	0.16	0.02
Control Delay (s/veh)	32.5	13.9		32.7	14.5		4.9	5.2		4.9	5.0	0.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	32.5	13.9		32.7	14.5		4.9	5.2		4.9	5.0	0.0
LOS	C	B		C	B		A	A		A	A	A
Approach Delay (s/veh)		19.7			19.9			5.2			4.6	
Approach LOS		B			B			A			A	
Queue Length 50th (m)	2.9	0.6		2.9	0.8		1.8	16.1		1.1	10.2	0.0
Queue Length 95th (m)	9.2	9.5		9.2	10.0		4.7	26.6		3.4	17.9	0.0
Internal Link Dist (m)		526.4			354.4			908.4			664.4	
Turn Bay Length (m)	30.0			20.0			135.0			130.0		120.0
Base Capacity (vph)	419	519		401	521		830	1238		759	1196	1107
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	0.05	0.09		0.05	0.10		0.05	0.24		0.03	0.16	0.02

Intersection Summary

Cycle Length: 92.5

Actuated Cycle Length: 72.9

Natural Cycle: 65

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.24

Lanes, Volumes, Timings
7: Stittsville Main Street & West Ridge Drive

Existing 2025 - AM
10/07/2025

Lane Group	Ø3	Ø7
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	7
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	5.0	5.0
Total Split (s)	5.0	5.0
Total Split (%)	5%	5%
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes
Recall Mode	Max	Max
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		
Approach LOS		
Queue Length 50th (m)		
Queue Length 95th (m)		
Internal Link Dist (m)		
Turn Bay Length (m)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings

7: Stittsville Main Street & West Ridge Drive

Existing 2025 - AM

10/07/2025

Intersection Signal Delay (s/veh): 7.8

Intersection LOS: A

Intersection Capacity Utilization 52.9%

ICU Level of Service A

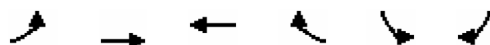
Analysis Period (min) 15

Splits and Phases: 7: Stittsville Main Street & West Ridge Drive



Lanes, Volumes, Timings
10: Fernbank Road & Robert Grant Avenue

Existing 2025 - AM
10/07/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø9
Lane Configurations							
Traffic Volume (vph)	114	494	315	127	167	93	
Future Volume (vph)	114	494	315	127	167	93	
Satd. Flow (prot)	1695	1767	1733	1369	1679	1459	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1695	1767	1733	1369	1679	1459	
Satd. Flow (RTOR)				141		103	
Lane Group Flow (vph)	127	549	350	141	186	103	
Turn Type	Prot	NA	NA	Perm	Prot	Perm	
Protected Phases	5	2	6		4		9
Permitted Phases				6		4	
Detector Phase	5	2	6	6	4	4	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0	3.0
Minimum Split (s)	11.2	24.2	24.2	24.2	30.0	30.0	5.0
Total Split (s)	28.0	35.0	30.0	30.0	40.0	40.0	5.0
Total Split (%)	27.2%	34.0%	29.1%	29.1%	38.8%	38.8%	5%
Yellow Time (s)	4.6	4.6	4.6	4.6	3.3	3.3	2.0
All-Red Time (s)	1.6	1.6	1.6	1.6	2.7	2.7	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.2	6.2	6.2	6.2	6.0	6.0	
Lead/Lag	Lead						Lag
Lead-Lag Optimize?	Yes						Yes
Recall Mode	None	Max	Max	Max	None	None	Max
Act Effect Green (s)	10.7	43.1	24.5	24.5	13.3	13.3	
Actuated g/C Ratio	0.16	0.62	0.36	0.36	0.19	0.19	
v/c Ratio	0.48	0.50	0.57	0.24	0.58	0.28	
Control Delay (s/veh)	35.3	9.3	25.7	5.6	34.4	8.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	35.3	9.3	25.7	5.6	34.4	8.2	
LOS	D	A	C	A	C	A	
Approach Delay (s/veh)		14.1	19.9		25.1		
Approach LOS		B	B		C		
Queue Length 50th (m)	15.8	32.6	38.2	0.0	22.9	0.0	
Queue Length 95th (m)	33.2	66.4	77.4	12.2	44.1	11.5	
Internal Link Dist (m)		1200.8	1406.4		1360.2		
Turn Bay Length (m)	105.0			115.0	85.0		
Base Capacity (vph)	551	1445	615	577	852	791	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.23	0.38	0.57	0.24	0.22	0.13	

Intersection Summary

Cycle Length: 103
Actuated Cycle Length: 69
Natural Cycle: 75
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.58

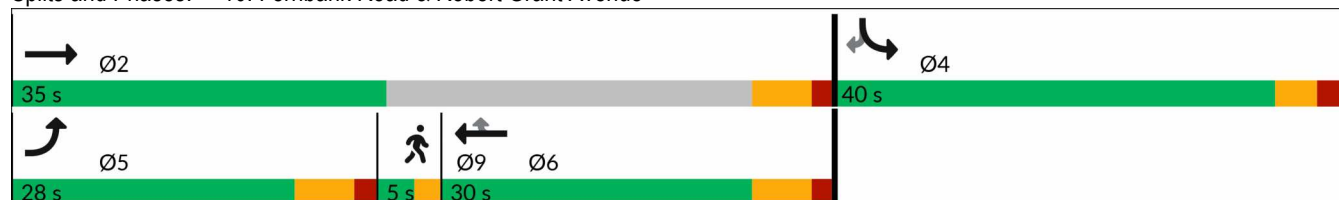
Lanes, Volumes, Timings 10: Fernbank Road & Robert Grant Avenue

Existing 2025 - AM
10/07/2025

Intersection Signal Delay (s/veh): 18.3
Intersection Capacity Utilization 49.3%
Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service A

Splits and Phases: 10: Fernbank Road & Robert Grant Avenue



Lanes, Volumes, Timings
1: West Ridge Drive & Hazeldean Road

Existing 2025 - PM

10/07/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	168	42	289	295	46	32	27	189	28	21	3
Future Volume (vph)	12	168	42	289	295	46	32	27	189	28	21	3
Satd. Flow (prot)	1729	1738	0	1712	1753	0	0	1771	1517	1729	1644	0
Flt Permitted	0.537			0.613				0.816		0.714		
Satd. Flow (perm)	977	1738	0	1105	1753	0	0	1485	1497	1298	1644	0
Satd. Flow (RTOR)		21			13				210		3	
Lane Group Flow (vph)	13	234	0	321	379	0	0	66	210	31	26	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8		8	4		
Detector Phase	2	2		6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	36.3	36.3		36.3	36.3		27.1	27.1	27.1	27.1	27.1	
Total Split (s)	48.0	48.0		48.0	48.0		37.0	37.0	37.0	37.0	37.0	
Total Split (%)	56.5%	56.5%		56.5%	56.5%		43.5%	43.5%	43.5%	43.5%	43.5%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.6	2.6		2.6	2.6		3.1	3.1	3.1	3.1	3.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.3	6.3		6.3	6.3			6.1	6.1	6.1	6.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None	None	None	None	
Act Effect Green (s)	44.4	44.4		44.4	44.4			10.3	10.3	10.3	10.3	
Actuated g/C Ratio	0.66	0.66		0.66	0.66			0.15	0.15	0.15	0.15	
v/c Ratio	0.02	0.20		0.44	0.33			0.29	0.52	0.16	0.10	
Control Delay (s/veh)	4.3	4.7		8.0	5.8			27.5	9.1	25.4	22.3	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay (s/veh)	4.3	4.7		8.0	5.8			27.5	9.1	25.4	22.3	
LOS	A	A		A	A			C	A	C	C	
Approach Delay (s/veh)		4.7			6.8			13.5			24.0	
Approach LOS		A			A			B			C	
Queue Length 50th (m)	0.5	8.4		15.7	16.1			7.0	0.0	3.2	2.4	
Queue Length 95th (m)	2.0	16.9		32.5	29.4			16.8	15.4	9.7	8.1	
Internal Link Dist (m)		1946.8			547.5			1603.9			236.0	
Turn Bay Length (m)	65.0			110.0						35.0		
Base Capacity (vph)	645	1155		729	1162			686	805	600	762	
Starvation Cap Reductn	0	0		0	0			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.02	0.20		0.44	0.33			0.10	0.26	0.05	0.03	
Intersection Summary												
Cycle Length: 85												
Actuated Cycle Length: 67.2												
Natural Cycle: 65												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.52												

Lanes, Volumes, Timings
1: West Ridge Drive & Hazeldean Road

Existing 2025 - PM
10/07/2025

Intersection Signal Delay (s/veh): 8.6

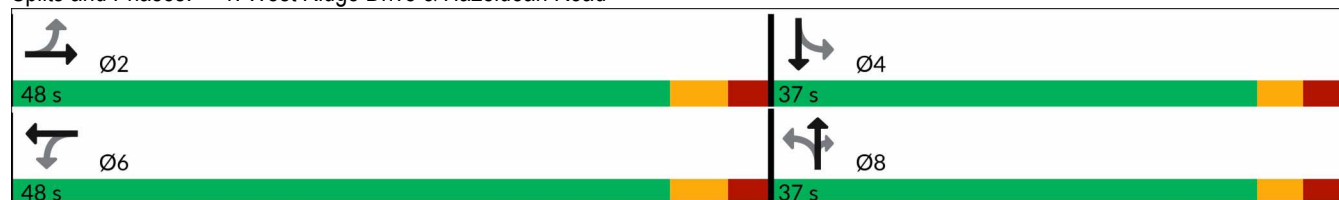
Intersection LOS: A

Intersection Capacity Utilization 54.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: West Ridge Drive & Hazeldean Road



Lanes, Volumes, Timings
2: Carp Road & Hazeldean Road

Existing 2025 - PM

10/07/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	263	87	23	431	351	113	353	30	281	461	188
Future Volume (vph)	120	263	87	23	431	351	113	353	30	281	461	188
Satd. Flow (prot)	1679	3254	0	1478	1750	1488	1712	3265	0	1695	1767	1517
Flt Permitted	0.118			0.522			0.950			0.950		
Satd. Flow (perm)	208	3254	0	811	1750	1454	1708	3265	0	1692	1767	1477
Satd. Flow (RTOR)		41				352		6				195
Lane Group Flow (vph)	133	389	0	26	479	390	126	425	0	312	512	209
Turn Type	pm+pt	NA		Perm	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8		8						6
Detector Phase	7	4		8	8	8	5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	11.2	39.6		39.6	39.6	39.6	11.0	32.1		11.0	32.1	32.1
Total Split (s)	13.0	58.0		45.0	45.0	45.0	19.0	34.0		38.0	53.0	53.0
Total Split (%)	10.0%	44.6%		34.6%	34.6%	34.6%	14.6%	26.2%		29.2%	40.8%	40.8%
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	2.5	2.9		2.9	2.9	2.9	2.3	2.4		2.3	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)	6.2	6.6		6.6	6.6	6.6	6.0	6.1		6.0	6.1	6.1
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	C-Max
Act Effect Green (s)	50.9	50.5		37.5	37.5	37.5	12.4	32.9		27.9	48.4	48.4
Actuated g/C Ratio	0.39	0.39		0.29	0.29	0.29	0.10	0.25		0.21	0.37	0.37
v/c Ratio	0.84	0.30		0.11	0.95	0.58	0.77	0.51		0.86	0.78	0.31
Control Delay (s/veh)	69.3	25.0		35.1	74.7	9.4	87.1	44.9		71.3	46.3	6.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	69.3	25.0		35.1	74.7	9.4	87.1	44.9		71.3	46.3	6.1
LOS	E	C		D	E	A	F	D		E	D	A
Approach Delay (s/veh)		36.3			45.1			54.6			45.7	
Approach LOS		D			D			D			D	
Queue Length 50th (m)	22.0	31.5		4.9	119.2	7.1	31.9	49.8		76.6	117.4	2.3
Queue Length 95th (m)	#49.9	43.8		12.4	#182.3	35.5	#61.4	68.7		#108.8	162.2	18.6
Internal Link Dist (m)		547.5			891.6			724.2			1541.5	
Turn Bay Length (m)	90.0			65.0			45.0			85.0		
Base Capacity (vph)	158	1311		239	516	677	171	830		417	657	672
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	0.84	0.30		0.11	0.93	0.58	0.74	0.51		0.75	0.78	0.31

Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 129 (99%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Lanes, Volumes, Timings

2: Carp Road & Hazeldean Road

Existing 2025 - PM

10/07/2025

Maximum v/c Ratio: 0.95

Intersection Signal Delay (s/veh): 45.5

Intersection LOS: D

Intersection Capacity Utilization 90.6%

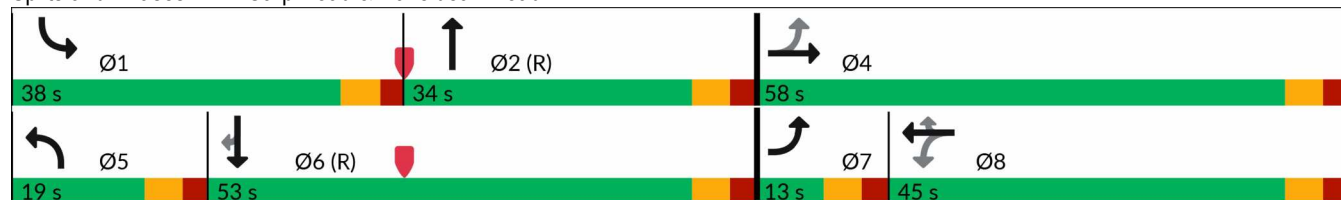
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Carp Road & Hazeldean Road



Lanes, Volumes, Timings
3: Stittsville Main Street & Hazeldean Road

Existing 2025 - PM

10/07/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	454	38	405	698	183	111	69	362	207	96	37
Future Volume (vph)	33	454	38	405	698	183	111	69	362	207	96	37
Satd. Flow (prot)	1729	3194	0	1712	3194	0	1695	1750	1532	1679	1784	1502
Flt Permitted	0.293			0.282			0.688			0.642		
Satd. Flow (perm)	533	3194	0	506	3194	0	1224	1750	1501	1127	1784	1476
Satd. Flow (RTOR)		7			28				401			150
Lane Group Flow (vph)	37	546	0	450	979	0	123	77	402	230	107	41
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.5	36.7		11.5	36.5		11.3	36.9	36.9	11.3	36.9	36.9
Total Split (s)	22.0	42.0		22.0	42.0		19.0	37.0	37.0	19.0	37.0	37.0
Total Split (%)	18.3%	35.0%		18.3%	35.0%		15.8%	30.8%	30.8%	15.8%	30.8%	30.8%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	3.0		2.8	2.8		3.0	3.6	3.6	3.0	3.6	3.6
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)	6.5	6.7		6.5	6.5		6.3	6.9	6.9	6.3	6.9	6.9
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effect Green (s)	42.6	35.8		73.7	65.5		25.8	13.9	13.9	28.6	15.3	15.3
Actuated g/C Ratio	0.36	0.30		0.61	0.55		0.22	0.12	0.12	0.24	0.13	0.13
v/c Ratio	0.15	0.57		0.72	0.56		0.40	0.38	0.76	0.71	0.47	0.13
Control Delay (s/veh)	15.4	37.9		21.7	20.8		36.9	53.1	14.7	49.2	55.1	0.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	15.4	37.9		21.7	20.8		36.9	53.1	14.7	49.2	55.1	0.8
LOS	B	D		C	C		D	D	B	D	E	A
Approach Delay (s/veh)		36.5			21.1			24.1			45.6	
Approach LOS		D			C			C			D	
Queue Length 50th (m)	3.1	55.5		49.9	78.4		23.0	17.3	0.2	46.2	24.4	0.0
Queue Length 95th (m)	9.0	74.8		#114.0	120.7		34.7	29.4	29.0	62.5	38.7	0.0
Internal Link Dist (m)		891.6			2777.7			546.2			989.0	
Turn Bay Length (m)	55.0			300.0			50.0		35.0	55.0		110.0
Base Capacity (vph)	383	958		624	1757		326	438	676	326	447	482
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	0.10	0.57		0.72	0.56		0.38	0.18	0.59	0.71	0.24	0.09

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 113 (94%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Lanes, Volumes, Timings

3: Stittsville Main Street & Hazeldean Road

Existing 2025 - PM

10/07/2025

Maximum v/c Ratio: 0.76

Intersection Signal Delay (s/veh): 27.8

Intersection LOS: C

Intersection Capacity Utilization 84.8%

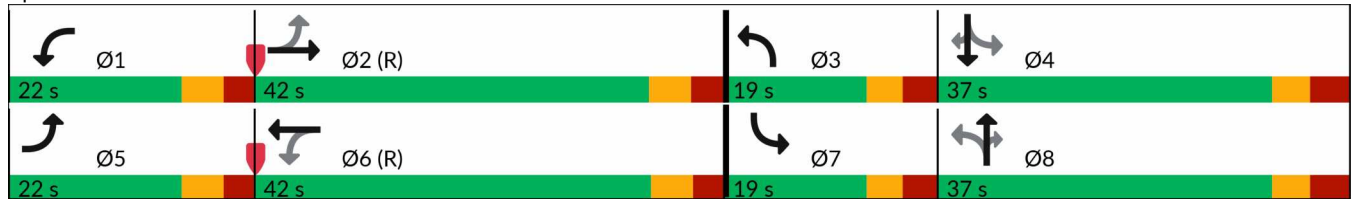
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Stittsville Main Street & Hazeldean Road



Lanes, Volumes, Timings
4: Stittsville Main Street & Carp Road

Existing 2025 - PM

10/07/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	123	449	177	131	55	346	428	128	56	417	49
Future Volume (vph)	64	123	449	177	131	55	346	428	128	56	417	49
Satd. Flow (prot)	1729	1820	1488	1729	1696	0	1647	1724	0	1729	1784	1547
Flt Permitted	0.628			0.489			0.155			0.213		
Satd. Flow (perm)	1126	1820	1426	876	1696	0	268	1724	0	388	1784	1516
Satd. Flow (RTOR)			377		29			17				154
Lane Group Flow (vph)	71	137	499	197	207	0	384	618	0	62	463	54
Turn Type	Perm	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0		5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	28.1	28.1	28.1	10.1	28.1		10.5	29.5		10.5	29.5	29.5
Total Split (s)	29.0	29.0	29.0	15.0	44.0		14.0	32.0		14.0	32.0	32.0
Total Split (%)	32.2%	32.2%	32.2%	16.7%	48.9%		15.6%	35.6%		15.6%	35.6%	35.6%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8		2.2	2.2		2.2	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	5.1	5.1	5.1		5.5	5.5		5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lag	Lead			Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	C-Max
Act Effect Green (s)	17.2	17.2	17.2	32.0	32.0		45.4	37.1		33.6	26.5	26.5
Actuated g/C Ratio	0.19	0.19	0.19	0.36	0.36		0.50	0.41		0.37	0.29	0.29
v/c Ratio	0.33	0.39	0.86	0.49	0.33		1.04	0.86		0.25	0.88	0.10
Control Delay (s/veh)	33.4	33.5	24.9	24.1	18.3		84.4	38.8		16.0	50.6	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	33.4	33.5	24.9	24.1	18.3		84.4	38.8		16.0	50.6	0.3
LOS	C	C	C	C	B		F	D		B	D	A
Approach Delay (s/veh)		27.4			21.2			56.3			42.2	
Approach LOS		C			C			E			D	
Queue Length 50th (m)	10.6	20.8	19.1	24.2	21.6		~49.1	100.0		5.0	75.9	0.0
Queue Length 95th (m)	20.8	33.9	#58.4	35.8	33.9		#140.4	#193.1		12.9	#129.1	0.0
Internal Link Dist (m)		724.2			101.6			1212.9			546.2	
Turn Bay Length (m)	40.0		55.0				75.0			60.0		50.0
Base Capacity (vph)	299	483	655	404	749		371	719		277	525	555
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	0.28	0.76	0.49	0.28		1.04	0.86		0.22	0.88	0.10

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 2 (2%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

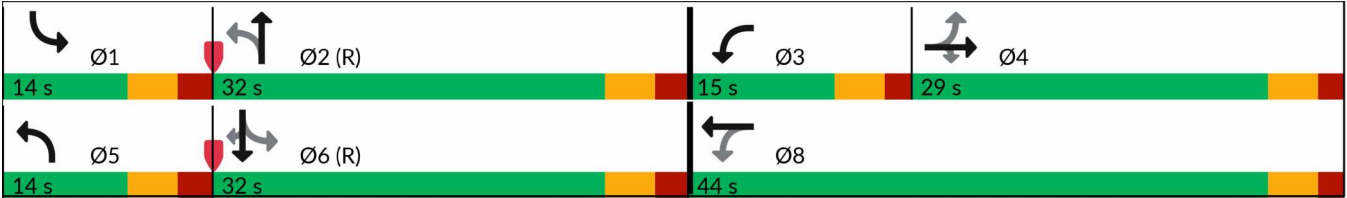
Control Type: Actuated-Coordinated

Lanes, Volumes, Timings
4: Stittsville Main Street & Carp Road

Existing 2025 - PM
10/07/2025

Maximum v/c Ratio: 1.04	
Intersection Signal Delay (s/veh): 40.4	Intersection LOS: D
Intersection Capacity Utilization 83.1%	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: 4: Stittsville Main Street & Carp Road



Lanes, Volumes, Timings
5: Stittsville Main Street & Abbott Street

Existing 2025 - PM

10/07/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	40	31	67	45	112	31	600	55	80	697	59
Future Volume (vph)	33	40	31	67	45	112	31	600	55	80	697	59
Satd. Flow (prot)	1729	1614	0	1712	1547	0	1729	1750	1517	1712	1761	0
Flt Permitted	0.481			0.706			0.275			0.363		
Satd. Flow (perm)	873	1614	0	1241	1547	0	501	1750	1470	653	1761	0
Satd. Flow (RTOR)		34			124				61		8	
Lane Group Flow (vph)	37	78	0	74	174	0	34	667	61	89	840	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	30.3	30.3		30.3	30.3		28.2	28.2	28.2	28.2	28.2	
Total Split (s)	33.0	33.0		33.0	33.0		57.0	57.0	57.0	57.0	57.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		63.3%	63.3%	63.3%	63.3%	63.3%	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.9	1.9	1.9	1.9	1.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.3	5.3		5.3	5.3		5.2	5.2	5.2	5.2	5.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	
Act Effect Green (s)	11.9	11.9		11.9	11.9		67.6	67.6	67.6	67.6	67.6	
Actuated g/C Ratio	0.13	0.13		0.13	0.13		0.75	0.75	0.75	0.75	0.75	
v/c Ratio	0.32	0.32		0.45	0.56		0.09	0.51	0.05	0.18	0.63	
Control Delay (s/veh)	42.3	25.2		44.7	19.4		4.2	6.5	1.2	2.8	4.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	42.3	25.2		44.7	19.4		4.2	6.5	1.2	2.8	4.4	
LOS	D	C		D	B		A	A	A	A	A	
Approach Delay (s/veh)		30.7			27.0			5.9			4.3	
Approach LOS		C			C			A			A	
Queue Length 50th (m)	6.0	7.0		12.2	8.0		1.2	34.7	0.0	1.2	12.8	
Queue Length 95th (m)	14.5	18.5		24.0	25.5		4.5	69.6	3.0	m3.8	m35.4	
Internal Link Dist (m)		796.3			1191.9			1402.3			1212.9	
Turn Bay Length (m)	35.0			30.0			20.0			30.0		
Base Capacity (vph)	268	520		381	561		376	1315	1120	490	1325	
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	0.14	0.15		0.19	0.31		0.09	0.51	0.05	0.18	0.63	
Intersection Summary												
Cycle Length: 90												
Actuated Cycle Length: 90												
Offset: 9 (10%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green												
Natural Cycle: 75												
Control Type: Actuated-Coordinated												

Lanes, Volumes, Timings
5: Stittsville Main Street & Abbott Street

Existing 2025 - PM
10/07/2025

Maximum v/c Ratio: 0.63

Intersection Signal Delay (s/veh): 9.1

Intersection LOS: A

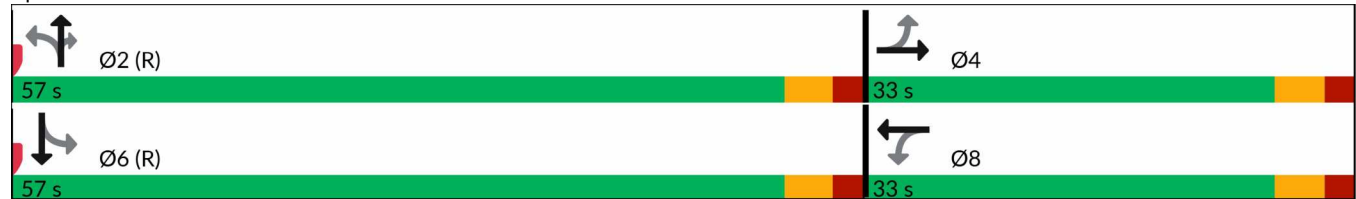
Intersection Capacity Utilization 90.0%

ICU Level of Service E

Analysis Period (min) 15

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

Splits and Phases: 5: Stittsville Main Street & Abbott Street



Lanes, Volumes, Timings
6: Stittsville Main Street & Fernbank Road

Existing 2025 - PM

10/07/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	50	8	124	120	119	14	329	50	52	467	59
Future Volume (vph)	30	50	8	124	120	119	14	329	50	52	467	59
Satd. Flow (prot)	1679	1688	0	1662	1750	1488	1429	1687	0	1601	1748	0
Flt Permitted	0.672			0.715			0.372			0.494		
Satd. Flow (perm)	1185	1688	0	1246	1750	1465	558	1687	0	827	1748	0
Satd. Flow (RTOR)		9				132		12			10	
Lane Group Flow (vph)	33	65	0	138	133	132	16	422	0	58	585	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	26.6	26.6		26.6	26.6	26.6	24.9	24.9		24.9	24.9	
Total Split (s)	37.6	37.6		37.6	37.6	37.6	46.9	46.9		46.9	46.9	
Total Split (%)	44.5%	44.5%		44.5%	44.5%	44.5%	55.5%	55.5%		55.5%	55.5%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.3	3.3		3.3	3.3	
All-Red Time (s)	4.6	4.6		4.6	4.6	4.6	3.6	3.6		3.6	3.6	
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	7.6	6.9	6.9		6.9	6.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	
Act Effect Green (s)	13.8	13.8		13.8	13.8	13.8	41.4	41.4		41.4	41.4	
Actuated g/C Ratio	0.20	0.20		0.20	0.20	0.20	0.59	0.59		0.59	0.59	
v/c Ratio	0.14	0.19		0.56	0.38	0.33	0.05	0.42		0.12	0.56	
Control Delay (s/veh)	23.1	20.9		33.7	26.7	7.0	8.1	9.9		8.3	12.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	23.1	20.9		33.7	26.7	7.0	8.1	9.9		8.3	12.1	
LOS	C	C		C	C	A	A	A		A	B	
Approach Delay (s/veh)		21.6			22.6			9.8			11.7	
Approach LOS		C			C			A			B	
Queue Length 50th (m)	3.5	5.9		15.9	14.7	0.0	0.7	24.0		2.8	38.2	
Queue Length 95th (m)	9.7	14.7		31.3	28.2	11.6	3.8	54.7		9.6	84.6	
Internal Link Dist (m)		720.0			1542.6			664.4			1402.3	
Turn Bay Length (m)	50.0			100.0		70.0	70.0			130.0		
Base Capacity (vph)	511	733		537	755	707	331	1005		490	1041	
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	0.06	0.09		0.26	0.18	0.19	0.05	0.42		0.12	0.56	
Intersection Summary												
Cycle Length: 84.5												
Actuated Cycle Length: 69.7												
Natural Cycle: 60												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.56												

Lanes, Volumes, Timings
6: Stittsville Main Street & Fernbank Road

Existing 2025 - PM

10/07/2025

Intersection Signal Delay (s/veh): 14.6

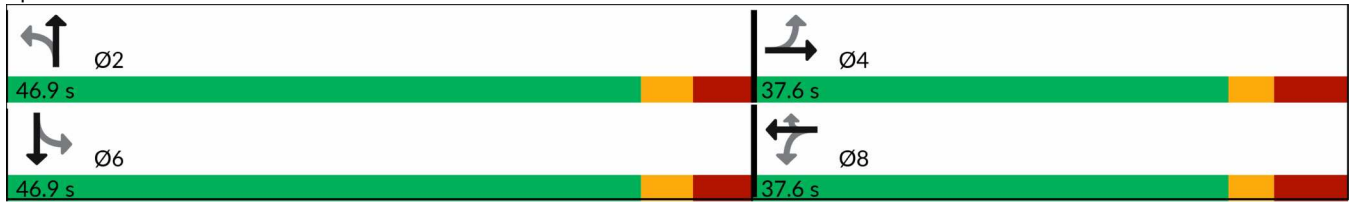
Intersection LOS: B

Intersection Capacity Utilization 70.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 6: Stittsville Main Street & Fernbank Road



Lanes, Volumes, Timings
7: Stittsville Main Street & West Ridge Drive

Existing 2025 - PM

10/07/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	31	56	19	10	38	80	269	46	54	393	39
Future Volume (vph)	24	31	56	19	10	38	80	269	46	54	393	39
Satd. Flow (prot)	1729	1621	0	1729	1576	0	1729	1696	0	1729	1733	1547
Flt Permitted	0.722			0.695			0.488			0.550		
Satd. Flow (perm)	1314	1621	0	1265	1576	0	888	1696	0	999	1733	1515
Satd. Flow (RTOR)		62			42			15				65
Lane Group Flow (vph)	27	96	0	21	53	0	89	350	0	60	437	43
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	29.5	29.5		29.5	29.5		29.0	29.0		29.0	29.0	29.0
Total Split (s)	29.5	29.5		29.5	29.5		58.0	58.0		58.0	58.0	58.0
Total Split (%)	31.9%	31.9%		31.9%	31.9%		62.7%	62.7%		62.7%	62.7%	62.7%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	3.5	3.5		3.5	3.5		2.7	2.7		2.7	2.7	2.7
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lag	Lag		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Max	Max		Max	Max	Max
Act Effect Green (s)	10.3	10.3		10.3	10.3		52.5	52.5		52.5	52.5	52.5
Actuated g/C Ratio	0.13	0.13		0.13	0.13		0.69	0.69		0.69	0.69	0.69
v/c Ratio	0.15	0.35		0.12	0.21		0.15	0.30		0.09	0.37	0.04
Control Delay (s/veh)	33.3	18.7		32.7	15.8		6.2	6.3		5.6	7.1	0.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	33.3	18.7		32.7	15.8		6.2	6.3		5.6	7.1	0.9
LOS	C	B		C	B		A	A		A	A	A
Approach Delay (s/veh)		21.9			20.6			6.3			6.4	
Approach LOS		C			C			A			A	
Queue Length 50th (m)	3.7	4.7		2.9	1.5		4.5	19.0		2.9	26.5	0.0
Queue Length 95th (m)	10.8	17.7		9.1	11.0		10.3	32.4		7.2	43.6	1.9
Internal Link Dist (m)		526.4			354.4			908.4			664.4	
Turn Bay Length (m)	30.0			20.0			135.0			130.0		120.0
Base Capacity (vph)	399	535		383	507		609	1169		686	1190	1060
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	0.07	0.18		0.05	0.10		0.15	0.30		0.09	0.37	0.04

Intersection Summary

Cycle Length: 92.5

Actuated Cycle Length: 76.4

Natural Cycle: 65

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.37

Lane Group	Ø3	Ø7
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	7
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	5.0	5.0
Total Split (s)	5.0	5.0
Total Split (%)	5%	5%
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes
Recall Mode	Max	Max
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		
Approach LOS		
Queue Length 50th (m)		
Queue Length 95th (m)		
Internal Link Dist (m)		
Turn Bay Length (m)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings 7: Stittsville Main Street & West Ridge Drive

Existing 2025 - PM
10/07/2025

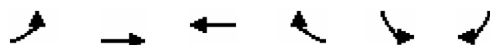
Intersection Signal Delay (s/veh): 8.9 Intersection LOS: A
Intersection Capacity Utilization 53.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 7: Stittsville Main Street & West Ridge Drive



Lanes, Volumes, Timings
10: Fernbank Road & Robert Grant Avenue

Existing 2025 - PM
10/07/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø9
Lane Configurations							
Traffic Volume (vph)	75	406	490	185	170	55	
Future Volume (vph)	75	406	490	185	170	55	
Satd. Flow (prot)	1712	1802	1802	1502	1679	1488	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1712	1802	1802	1502	1679	1488	
Satd. Flow (RTOR)				206		61	
Lane Group Flow (vph)	83	451	544	206	189	61	
Turn Type	Prot	NA	NA	Perm	Prot	Perm	
Protected Phases	5	2	6		4		9
Permitted Phases				6		4	
Detector Phase	5	2	6	6	4	4	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0	3.0
Minimum Split (s)	11.2	24.2	24.2	24.2	30.0	30.0	5.0
Total Split (s)	28.0	35.0	30.0	30.0	40.0	40.0	5.0
Total Split (%)	27.2%	34.0%	29.1%	29.1%	38.8%	38.8%	5%
Yellow Time (s)	4.6	4.6	4.6	4.6	3.3	3.3	2.0
All-Red Time (s)	1.6	1.6	1.6	1.6	2.7	2.7	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.2	6.2	6.2	6.2	6.0	6.0	
Lead/Lag	Lead						Lag
Lead-Lag Optimize?	Yes						Yes
Recall Mode	None	Max	Max	Max	None	None	Max
Act Effect Green (s)	8.8	41.4	24.4	24.4	12.9	12.9	
Actuated g/C Ratio	0.13	0.62	0.37	0.37	0.19	0.19	
v/c Ratio	0.37	0.40	0.83	0.30	0.58	0.18	
Control Delay (s/veh)	33.7	8.2	36.0	4.7	33.5	8.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	33.7	8.2	36.0	4.7	33.5	8.5	
LOS	C	A	D	A	C	A	
Approach Delay (s/veh)		12.1	27.4		27.4		
Approach LOS		B	C		C		
Queue Length 50th (m)	10.0	24.4	64.4	0.0	22.5	0.0	
Queue Length 95th (m)	23.5	49.9	#141.3	13.7	42.6	8.6	
Internal Link Dist (m)		1200.8	1406.4		1360.2		
Turn Bay Length (m)	105.0			115.0	85.0		
Base Capacity (vph)	573	1512	658	679	876	806	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.14	0.30	0.83	0.30	0.22	0.08	

Intersection Summary

Cycle Length: 103
Actuated Cycle Length: 66.8
Natural Cycle: 80
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.83

Lanes, Volumes, Timings
10: Fernbank Road & Robert Grant Avenue

Existing 2025 - PM
10/07/2025

Intersection Signal Delay (s/veh): 22.1

Intersection LOS: C

Intersection Capacity Utilization 56.9%

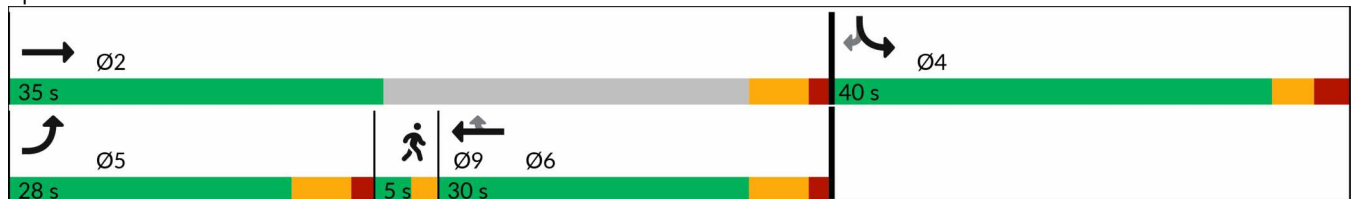
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Fernbank Road & Robert Grant Avenue



HCM Unsignalized Intersection Capacity Analysis 8: Stittsville Main Street & Flewellyn Road

Existing 2025 - AM
10/07/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	39	128	26	26	67	35	16	239	43	61	236	20
Future Volume (vph)	39	128	26	26	67	35	16	239	43	61	236	20
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	43	142	29	29	74	39	18	266	48	68	262	22
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	214	142	332	352								
Volume Left (vph)	43	29	18	68								
Volume Right (vph)	29	39	48	22								
Hadj (s)	0.04	-0.03	0.12	0.14								
Departure Headway (s)	6.3	6.4	5.8	5.8								
Degree Utilization, x	0.37	0.25	0.54	0.57								
Capacity (veh/h)	505	476	579	587								
Control Delay (s/veh)	13.0	11.6	15.5	16.3								
Approach Delay (s/veh)	13.0	11.6	15.5	16.3								
Approach LOS	B	B	C	C								
Intersection Summary												
Delay				14.7								
Level of Service				B								
Intersection Capacity Utilization				59.7%	ICU Level of Service	B						
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis 9: Stittsville Main Street & Fallowfield Road

Existing 2025 - AM
10/07/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	30	123	15	19	49	46	3	156	38	116	125	15
Future Volume (vph)	30	123	15	19	49	46	3	156	38	116	125	15
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	33	137	17	21	54	51	3	173	42	129	139	17
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	187	126	218	285								
Volume Left (vph)	33	21	3	129								
Volume Right (vph)	17	51	42	17								
Hadj (s)	0.09	-0.12	0.03	0.22								
Departure Headway (s)	5.6	5.5	5.3	5.4								
Degree Utilization, x	0.29	0.19	0.32	0.42								
Capacity (veh/h)	588	581	635	633								
Control Delay (s/veh)	10.8	9.8	10.8	12.3								
Approach Delay (s/veh)	10.8	9.8	10.8	12.3								
Approach LOS	B	A	B	B								
Intersection Summary												
Delay				11.2								
Level of Service				B								
Intersection Capacity Utilization				49.0%	ICU Level of Service	A						
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis

11: Shea Road & Flewellyn Road

Existing 2025 - AM

10/07/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	127	25	1	59	12	11	174	1	32	158	54
Future Volume (Veh/h)	81	127	25	1	59	12	11	174	1	32	158	54
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	90	141	28	1	66	13	12	193	1	36	176	60
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	79			169			558	416	155	507	424	73
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	79			169			558	416	155	507	424	73
tC, single (s)	4.1			4.1			7.1	6.6	6.2	7.1	6.5	6.4
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.1	3.3	3.5	4.0	3.5
p0 queue free %	94			100			96	61	100	89	64	94
cM capacity (veh/h)	1500			1421			286	490	896	317	488	949
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	259	80	206	272								
Volume Left	90	1	12	36								
Volume Right	28	13	1	60								
cSH	1500	1421	471	506								
Volume to Capacity	0.06	0.00	0.44	0.54								
Queue Length 95th (m)	1.5	0.0	16.6	23.9								
Control Delay (s/veh)	3.0	0.1	18.4	20.1								
Lane LOS	A	A	C	C								
Approach Delay (s/veh)	3.0	0.1	18.4	20.1								
Approach LOS			C	C								
Intersection Summary												
Average Delay	12.3											
Intersection Capacity Utilization	50.4%			ICU Level of Service					A			
Analysis Period (min)	15											

HCM Unsignalized Intersection Capacity Analysis 8: Stittsville Main Street & Flewellyn Road

Existing 2025 - PM
10/07/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	39	83	12	23	154	68	30	224	16	55	253	65
Future Volume (vph)	39	83	12	23	154	68	30	224	16	55	253	65
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	43	92	13	26	171	76	33	249	18	61	281	72
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	148	273	300	414								
Volume Left (vph)	43	26	33	61								
Volume Right (vph)	13	76	18	72								
Hadj (s)	0.05	-0.07	0.06	0.00								
Departure Headway (s)	6.9	6.4	6.2	6.0								
Degree Utilization, x	0.28	0.48	0.52	0.69								
Capacity (veh/h)	440	500	533	568								
Control Delay (s/veh)	12.5	15.2	15.8	20.9								
Approach Delay (s/veh)	12.5	15.2	15.8	20.9								
Approach LOS	B	C	C	C								
Intersection Summary												
Delay			17.1									
Level of Service			C									
Intersection Capacity Utilization			54.8%	ICU Level of Service					A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 9: Stittsville Main Street & Fallowfield Road

Existing 2025 - PM
10/07/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	18	63	7	21	125	79	6	142	24	49	148	33
Future Volume (vph)	18	63	7	21	125	79	6	142	24	49	148	33
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	20	70	8	23	139	88	7	158	27	54	164	37
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	98	250	192	255								
Volume Left (vph)	20	23	7	54								
Volume Right (vph)	8	88	27	37								
Hadj (s)	0.08	-0.16	-0.01	0.03								
Departure Headway (s)	5.6	5.1	5.2	5.2								
Degree Utilization, x	0.15	0.35	0.28	0.37								
Capacity (veh/h)	574	652	637	649								
Control Delay (s/veh)	9.6	10.9	10.2	11.2								
Approach Delay (s/veh)	9.6	10.9	10.2	11.2								
Approach LOS	A	B	B	B								
Intersection Summary												
Delay			10.7									
Level of Service			B									
Intersection Capacity Utilization			47.9%	ICU Level of Service					A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

11: Shea Road & Flewellyn Road

Existing 2025 - PM

10/07/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	61	7	1	126	55	9	234	2	16	157	72
Future Volume (Veh/h)	48	61	7	1	126	55	9	234	2	16	157	72
Sign Control	Free			Free			Stop			Stop		
Grade	0%			0%			0%			0%		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	53	68	8	1	140	61	10	260	2	18	174	80
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	201			76			518	381	72	483	355	171
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	201			76			518	381	72	483	355	171
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 %	96			100			97	51	100	94	68	91
cM capacity (veh/h)	1383			1536			314	533	996	298	550	871
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	129	202	272	272								
Volume Left	53	1	10	18								
Volume Right	8	61	2	80								
cSH	1383	1536	522	581								
Volume to Capacity	0.04	0.00	0.52	0.47								
Queue Length 95th (m)	0.9	0.0	22.7	18.9								
Control Delay (s/veh)	3.3	0.0	19.2	16.5								
Lane LOS	A	A	C	C								
Approach Delay (s/veh)	3.3	0.0	19.2	16.5								
Approach LOS			C	C								
Intersection Summary												
Average Delay				11.6								
Intersection Capacity Utilization				47.7%	ICU Level of Service			A				
Analysis Period (min)				15								

Appendix D Synchro Outputs – Future Background 2046



Lanes, Volumes, Timings
1: West Ridge Drive & Hazeldean Road

Future Background 2046 - AM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	403	47	80	111	16	45	16	253	21	10	3
Future Volume (vph)	14	403	47	80	111	16	45	16	253	21	10	3
Satd. Flow (prot)	1729	1759	0	1712	1711	0	0	1703	1547	1729	1756	0
Flt Permitted	0.676			0.487				0.775		0.717		
Satd. Flow (perm)	1230	1759	0	878	1711	0	0	1369	1547	1305	1756	0
Satd. Flow (RTOR)		10			12				253		3	
Lane Group Flow (vph)	14	450	0	80	127	0	0	61	253	21	13	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8		8	4		
Detector Phase	2	2		6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	36.3	36.3		36.3	36.3		27.1	27.1	27.1	27.1	27.1	
Total Split (s)	48.0	48.0		48.0	48.0		37.0	37.0	37.0	37.0	37.0	
Total Split (%)	56.5%	56.5%		56.5%	56.5%		43.5%	43.5%	43.5%	43.5%	43.5%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.6	2.6		2.6	2.6		3.1	3.1	3.1	3.1	3.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.3	6.3		6.3	6.3			6.1	6.1	6.1	6.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None	None	None	None	
Act Effect Green (s)	43.1	43.1		43.1	43.1			10.6	10.6	10.6	10.6	
Actuated g/C Ratio	0.65	0.65		0.65	0.65			0.16	0.16	0.16	0.16	
v/c Ratio	0.02	0.39		0.14	0.11			0.28	0.55	0.10	0.05	
Control Delay (s/veh)	4.6	6.7		5.5	4.4			27.3	8.8	24.1	20.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay (s/veh)	4.6	6.7		5.5	4.4			27.3	8.8	24.1	20.6	
LOS	A	A		A	A			C	A	C	C	
Approach Delay (s/veh)		6.6			4.9			12.4			22.8	
Approach LOS		A			A			B			C	
Queue Length 50th (m)	0.5	20.4		3.1	4.3			6.5	0.0	2.2	1.0	
Queue Length 95th (m)	2.3	39.8		8.5	10.6			15.8	16.6	7.3	4.9	
Internal Link Dist (m)		1946.8			547.5			1603.9			236.0	
Turn Bay Length (m)	65.0			110.0						35.0		
Base Capacity (vph)	802	1149		572	1119			640	858	611	824	
Starvation Cap Reductn	0	0		0	0			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.02	0.39		0.14	0.11			0.10	0.29	0.03	0.02	
Intersection Summary												
Cycle Length: 85												
Actuated Cycle Length: 66.1												
Natural Cycle: 65												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.55												

Lanes, Volumes, Timings
1: West Ridge Drive & Hazeldean Road

Future Background 2046 - AM

10/09/2025

Intersection Signal Delay (s/veh): 8.6

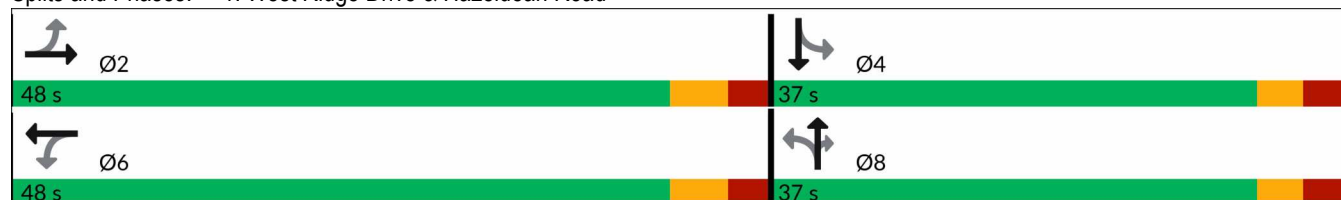
Intersection LOS: A

Intersection Capacity Utilization 65.7%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: West Ridge Drive & Hazeldean Road



Lanes, Volumes, Timings
2: Carp Road & Hazeldean Road

Future Background 2046 - AM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	310	335	79	27	185	270	44	407	13	301	352	82
Future Volume (vph)	310	335	79	27	185	270	44	407	13	301	352	82
Satd. Flow (prot)	1679	3077	0	1530	1640	1432	1601	3208	0	1544	3232	1300
Flt Permitted	0.416			0.509			0.950			0.950		
Satd. Flow (perm)	732	3077	0	818	1640	1405	1591	3208	0	1543	3232	1261
Satd. Flow (RTOR)		27				270		2				138
Lane Group Flow (vph)	310	414	0	27	185	270	44	420	0	301	352	82
Turn Type	pm+pt	NA		Perm	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	4			8		5	2		19	6	
Permitted Phases	4			8		8						6
Detector Phase	7	4		8	8	8	5	2		19	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0	10.0	5.0	10.0			10.0	10.0
Minimum Split (s)	11.2	39.6		39.6	39.6	39.6	11.0	32.1			32.1	32.1
Total Split (s)	15.0	55.0		40.0	40.0	40.0	16.0	33.0			54.0	54.0
Total Split (%)	12.0%	44.0%		32.0%	32.0%	32.0%	12.8%	26.4%			43.2%	43.2%
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	3.7	3.7			3.7	3.7
All-Red Time (s)	2.5	2.9		2.9	2.9	2.9	2.3	2.4			2.4	2.4
Lost Time Adjust (s)	-2.5	0.0		0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)	3.7	6.6		6.6	6.6	6.6	6.0	6.1			6.1	6.1
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag			Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes			Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Max			C-Max	C-Max
Act Effct Green (s)	37.8	34.9		19.9	19.9	19.9	8.9	30.8		34.6	64.8	64.8
Actuated g/C Ratio	0.30	0.28		0.16	0.16	0.16	0.07	0.25		0.28	0.52	0.52
v/c Ratio	1.01	0.47		0.21	0.71	0.60	0.39	0.53		0.70	0.21	0.11
Control Delay (s/veh)	93.9	35.8		46.8	63.9	10.8	64.5	44.5		32.4	18.9	0.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	93.9	35.8		46.8	63.9	10.8	64.5	44.5		32.4	18.9	0.6
LOS	F	D		D	E	B	E	D		C	B	A
Approach Delay (s/veh)		60.7			33.2			46.4			22.4	
Approach LOS		E			C			D			C	
Queue Length 50th (m)	~67.4	41.8		5.9	43.9	0.0	10.5	48.1		32.4	24.5	0.0
Queue Length 95th (m)	#107.0	51.6		13.8	63.4	22.6	22.2	66.3		#64.4	41.2	1.2
Internal Link Dist (m)		547.5			891.6			724.2			1541.5	
Turn Bay Length (m)	90.0			65.0			45.0			85.0		100.0
Base Capacity (vph)	307	1207		218	438	573	134	792		427	1676	720
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	1.01	0.34		0.12	0.42	0.47	0.33	0.53		0.70	0.21	0.11

Intersection Summary

Cycle Length: 125

Actuated Cycle Length: 125

Offset: 114 (91%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Lane Group	Ø1	Ø9
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	1	9
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	11.0	11.0
Total Split (s)	16.0	21.0
Total Split (%)	13%	17%
Yellow Time (s)	3.7	3.7
All-Red Time (s)	2.3	2.3
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?	Yes	
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		
Approach LOS		
Queue Length 50th (m)		
Queue Length 95th (m)		
Internal Link Dist (m)		
Turn Bay Length (m)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings

2: Carp Road & Hazeldean Road

Future Background 2046 - AM

10/09/2025

Maximum v/c Ratio: 1.01

Intersection Signal Delay (s/veh): 40.7

Intersection LOS: D

Intersection Capacity Utilization 89.2%

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: 2: Carp Road & Hazeldean Road



Lanes, Volumes, Timings
3: Stittsville Main Street & Hazeldean Road

Future Background 2046 - AM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	616	30	238	415	178	56	46	352	324	65	44
Future Volume (vph)	44	616	30	238	415	178	56	46	352	324	65	44
Satd. Flow (prot)	1679	3274	0	1712	3058	0	1729	1767	1517	1695	1670	1502
Flt Permitted	0.428			0.280			0.715			0.554		
Satd. Flow (perm)	755	3274	0	504	3058	0	1300	1767	1481	978	1670	1478
Satd. Flow (RTOR)		5			64				223			157
Lane Group Flow (vph)	44	646	0	238	593	0	56	46	352	324	65	44
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.5	36.7		11.5	36.5		11.3	36.9	36.9	11.3	36.9	36.9
Total Split (s)	12.0	47.0		12.0	47.0		19.0	37.0	37.0	19.0	37.0	37.0
Total Split (%)	10.4%	40.9%		10.4%	40.9%		16.5%	32.2%	32.2%	16.5%	32.2%	32.2%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	3.0		2.8	2.8		3.0	3.6	3.6	3.0	3.6	3.6
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)	6.5	6.7		6.5	6.5		6.3	6.9	6.9	6.3	6.9	6.9
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effect Green (s)	53.0	46.3		63.9	54.6		25.9	17.4	17.4	35.2	24.4	24.4
Actuated g/C Ratio	0.46	0.40		0.56	0.47		0.23	0.15	0.15	0.31	0.21	0.21
v/c Ratio	0.11	0.49		0.58	0.40		0.17	0.17	0.85	0.86	0.18	0.10
Control Delay (s/veh)	14.9	28.1		24.0	20.4		26.4	40.5	36.0	55.3	38.0	0.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	14.9	28.1		24.0	20.4		26.4	40.5	36.0	55.3	38.0	0.5
LOS	B	C		C	C		C	D	D	E	D	A
Approach Delay (s/veh)		27.2			21.5			35.2			47.1	
Approach LOS		C			C			D			D	
Queue Length 50th (m)	4.0	57.3		24.8	40.1		9.0	9.3	29.5	62.1	12.7	0.0
Queue Length 95th (m)	11.7	79.2		#67.7	66.6		15.5	17.4	58.0	76.1	22.1	0.0
Internal Link Dist (m)		891.6			2777.7			546.2			989.0	
Turn Bay Length (m)	55.0			300.0			50.0		35.0	55.0		110.0
Base Capacity (vph)	400	1321		408	1486		393	462	552	378	441	505
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	0.11	0.49		0.58	0.40		0.14	0.10	0.64	0.86	0.15	0.09

Intersection Summary

Cycle Length: 115

Actuated Cycle Length: 115

Offset: 85 (74%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Lanes, Volumes, Timings

3: Stittsville Main Street & Hazeldean Road

Future Background 2046 - AM

10/09/2025

Maximum v/c Ratio: 0.86

Intersection Signal Delay (s/veh): 30.3

Intersection LOS: C

Intersection Capacity Utilization 84.8%

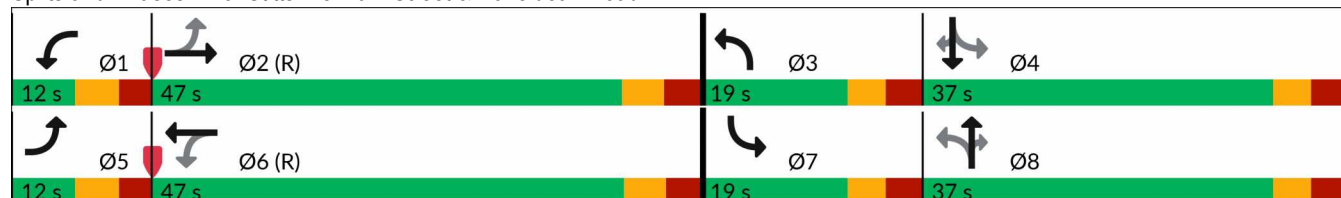
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Stittsville Main Street & Hazeldean Road



Lanes, Volumes, Timings
4: Stittsville Main Street & Carp Road

Future Background 2046 - AM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	109	334	122	70	60	403	407	189	73	308	30
Future Volume (vph)	64	109	334	122	70	60	403	407	189	73	308	30
Satd. Flow (prot)	1662	1802	1473	1662	1627	0	1601	1673	0	1729	1767	1432
Flt Permitted	0.672			0.687			0.445			0.397		
Satd. Flow (perm)	1174	1802	1436	1197	1627	0	748	1673	0	721	1767	1410
Satd. Flow (RTOR)			334		56			33				104
Lane Group Flow (vph)	64	109	334	122	130	0	403	596	0	73	308	30
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		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)	28.1	28.1	28.1	28.1	28.1		10.5	29.5		10.5	29.5	29.5
Total Split (s)	30.0	30.0	30.0	30.0	30.0		15.0	35.0		15.0	35.0	35.0
Total Split (%)	37.5%	37.5%	37.5%	37.5%	37.5%		18.8%	43.8%		18.8%	43.8%	43.8%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8		2.2	2.2		2.2	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	5.1	5.1	5.1		5.5	5.5		5.5	5.5	5.5
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	C-Max
Act Effect Green (s)	14.0	14.0	14.0	14.0	14.0		55.4	45.4		42.2	35.6	35.6
Actuated g/C Ratio	0.18	0.18	0.18	0.18	0.18		0.69	0.57		0.53	0.45	0.45
v/c Ratio	0.31	0.35	0.63	0.58	0.39		0.60	0.62		0.16	0.39	0.04
Control Delay (s/veh)	31.4	30.8	9.3	40.9	20.0		10.6	14.5		7.1	18.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	31.4	30.8	9.3	40.9	20.0		10.6	14.5		7.1	18.5	0.1
LOS	C	C	A	D	B		B	B		A	B	A
Approach Delay (s/veh)		16.7			30.1			12.9			15.2	
Approach LOS		B			C			B			B	
Queue Length 50th (m)	8.7	14.8	0.0	17.3	9.9		18.8	43.2		2.9	30.7	0.0
Queue Length 95th (m)	17.8	26.1	19.2	30.9	22.4		47.6	#86.8		8.5	57.1	0.0
Internal Link Dist (m)		724.2			101.6			1212.9			546.2	
Turn Bay Length (m)	40.0		55.0				75.0			60.0		50.0
Base Capacity (vph)	365	560	676	372	544		670	964		525	785	684
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	0.19	0.49	0.33	0.24		0.60	0.62		0.14	0.39	0.04

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Lanes, Volumes, Timings

4: Stittsville Main Street & Carp Road

Future Background 2046 - AM

10/09/2025

Maximum v/c Ratio: 0.63

Intersection Signal Delay (s/veh): 16.2

Intersection LOS: B

Intersection Capacity Utilization 78.9%

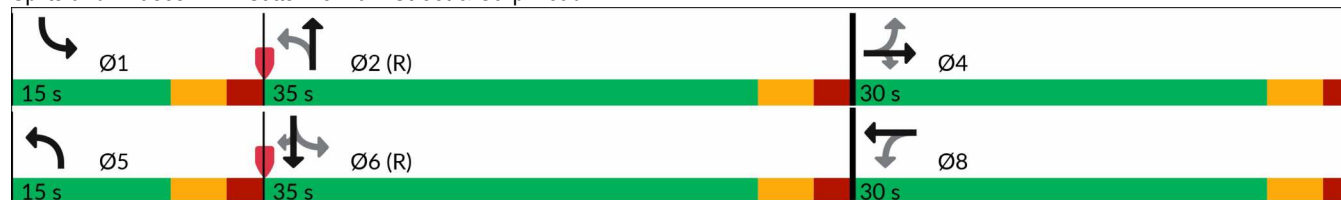
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 4: Stittsville Main Street & Carp Road



Lanes, Volumes, Timings
5: Stittsville Main Street & Abbott Street

Future Background 2046 - AM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	105	23	50	44	117	12	712	89	71	411	16
Future Volume (vph)	39	105	23	50	44	117	12	712	89	71	411	16
Satd. Flow (prot)	1729	1661	0	1695	1522	0	1729	1750	1406	1491	1718	0
Flt Permitted	0.577			0.675			0.498			0.330		
Satd. Flow (perm)	1046	1661	0	1172	1522	0	898	1750	1368	517	1718	0
Satd. Flow (RTOR)		15			117				89		4	
Lane Group Flow (vph)	39	128	0	50	161	0	12	712	89	71	427	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	30.3	30.3		30.3	30.3		28.2	28.2	28.2	28.2	28.2	
Total Split (s)	31.0	31.0		31.0	31.0		49.0	49.0	49.0	49.0	49.0	
Total Split (%)	38.8%	38.8%		38.8%	38.8%		61.3%	61.3%	61.3%	61.3%	61.3%	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.9	1.9	1.9	1.9	1.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.3	5.3		5.3	5.3		5.2	5.2	5.2	5.2	5.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)	11.8	11.8		11.8	11.8		57.7	57.7	57.7	57.7	57.7	
Actuated g/C Ratio	0.15	0.15		0.15	0.15		0.72	0.72	0.72	0.72	0.72	
v/c Ratio	0.25	0.50		0.29	0.50		0.02	0.56	0.09	0.19	0.34	
Control Delay (s/veh)	33.6	34.1		34.1	15.9		3.9	7.8	1.2	4.5	3.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	33.6	34.1		34.1	15.9		3.9	7.8	1.2	4.5	3.7	
LOS	C	C		C	B		A	A	A	A	A	
Approach Delay (s/veh)		33.9			20.2			7.0			3.8	
Approach LOS		C			C			A			A	
Queue Length 50th (m)	5.4	16.2		7.0	6.1		0.4	38.9	0.0	1.4	8.9	
Queue Length 95th (m)	13.2	30.3		15.8	21.3		2.0	79.4	3.8	m5.9	23.9	
Internal Link Dist (m)		796.3			1191.9			1402.3			1212.9	
Turn Bay Length (m)	35.0			30.0			20.0			30.0		
Base Capacity (vph)	336	543		376	568		647	1262	1011	372	1239	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.12	0.24		0.13	0.28		0.02	0.56	0.09	0.19	0.34	
Intersection Summary												
Cycle Length: 80												
Actuated Cycle Length: 80												
Offset: 7 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green												
Natural Cycle: 65												
Control Type: Actuated-Coordinated												

Lanes, Volumes, Timings
5: Stittsville Main Street & Abbott Street

Future Background 2046 - AM

10/09/2025

Maximum v/c Ratio: 0.56

Intersection Signal Delay (s/veh): 10.4

Intersection LOS: B

Intersection Capacity Utilization 88.1%

ICU Level of Service E

Analysis Period (min) 15

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

Splits and Phases: 5: Stittsville Main Street & Abbott Street



Lanes, Volumes, Timings
6: Stittsville Main Street & Fernbank Road

Future Background 2046 - AM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	108	16	44	62	68	12	385	90	32	311	24
Future Volume (vph)	38	108	16	44	62	68	12	385	90	32	311	24
Satd. Flow (prot)	1679	1679	0	1679	1685	1419	1441	1665	0	1662	1697	0
Flt Permitted	0.717			0.677			0.559			0.475		
Satd. Flow (perm)	1265	1679	0	1192	1685	1400	847	1665	0	827	1697	0
Satd. Flow (RTOR)		10				68		20			7	
Lane Group Flow (vph)	38	124	0	44	62	68	12	475	0	32	335	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	26.6	26.6		26.6	26.6	26.6	24.9	24.9		24.9	24.9	
Total Split (s)	34.6	34.6		34.6	34.6	34.6	46.9	46.9		46.9	46.9	
Total Split (%)	42.5%	42.5%		42.5%	42.5%	42.5%	57.5%	57.5%		57.5%	57.5%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.3	3.3		3.3	3.3	
All-Red Time (s)	4.6	4.6		4.6	4.6	4.6	3.6	3.6		3.6	3.6	
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	7.6	6.9	6.9		6.9	6.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	
Act Effect Green (s)	10.9	10.9		10.9	10.9	10.9	44.6	44.6		44.6	44.6	
Actuated g/C Ratio	0.17	0.17		0.17	0.17	0.17	0.69	0.69		0.69	0.69	
v/c Ratio	0.18	0.43		0.22	0.22	0.23	0.02	0.41		0.06	0.29	
Control Delay (s/veh)	25.5	27.3		26.4	25.5	9.1	5.7	7.7		5.9	6.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	25.5	27.3		26.4	25.5	9.1	5.7	7.7		5.9	6.6	
LOS	C	C		C	C	A	A	A		A	A	
Approach Delay (s/veh)		26.9			19.3			7.6			6.6	
Approach LOS		C			B			A			A	
Queue Length 50th (m)	4.0	12.5		4.7	6.6	0.0	0.5	24.5		1.3	16.0	
Queue Length 95th (m)	11.2	26.1		12.5	15.7	8.9	2.4	49.3		4.7	32.4	
Internal Link Dist (m)		720.0			1542.6			664.4			1402.3	
Turn Bay Length (m)	50.0			100.0		70.0	70.0			130.0		
Base Capacity (vph)	526	704		495	701	622	582	1150		568	1168	
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	0.07	0.18		0.09	0.09	0.11	0.02	0.41		0.06	0.29	
Intersection Summary												
Cycle Length: 81.5												
Actuated Cycle Length: 64.9												
Natural Cycle: 60												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.43												

Lanes, Volumes, Timings
6: Stittsville Main Street & Fernbank Road

Future Background 2046 - AM

10/09/2025

Intersection Signal Delay (s/veh): 11.6

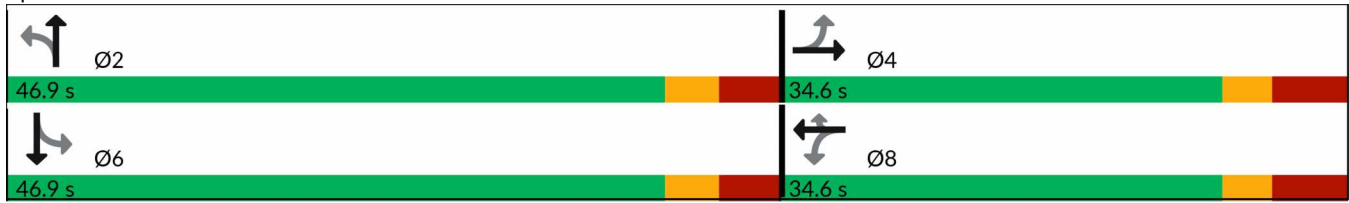
Intersection LOS: B

Intersection Capacity Utilization 63.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 6: Stittsville Main Street & Fernbank Road



Lanes, Volumes, Timings
7: Stittsville Main Street & West Ridge Drive

Future Background 2046 - AM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	4	39	19	5	40	41	306	22	27	216	20
Future Volume (vph)	19	4	39	19	5	40	41	306	22	27	216	20
Satd. Flow (prot)	1729	1536	0	1647	1536	0	1729	1712	0	1729	1655	1547
Flt Permitted	0.728			0.729			0.623			0.562		
Satd. Flow (perm)	1312	1536	0	1259	1536	0	1129	1712	0	1022	1655	1507
Satd. Flow (RTOR)		39			40			6				65
Lane Group Flow (vph)	19	43	0	19	45	0	41	328	0	27	216	20
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	29.5	29.5		29.5	29.5		29.0	29.0		29.0	29.0	29.0
Total Split (s)	29.5	29.5		29.5	29.5		58.0	58.0		58.0	58.0	58.0
Total Split (%)	31.9%	31.9%		31.9%	31.9%		62.7%	62.7%		62.7%	62.7%	62.7%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	3.5	3.5		3.5	3.5		2.7	2.7		2.7	2.7	2.7
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lag	Lag		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Max	Max		Max	Max	Max
Act Effect Green (s)	10.1	10.1		10.1	10.1		52.7	52.7		52.7	52.7	52.7
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.72	0.72		0.72	0.72	0.72
v/c Ratio	0.10	0.17		0.11	0.18		0.05	0.26		0.04	0.18	0.02
Control Delay (s/veh)	32.4	14.3		32.5	14.6		4.9	5.4		5.0	5.0	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	32.4	14.3		32.5	14.6		4.9	5.4		5.0	5.0	0.1
LOS	C	B		C	B		A	A		A	A	A
Approach Delay (s/veh)		19.9			19.9			5.3			4.7	
Approach LOS		B			B			A			A	
Queue Length 50th (m)	2.6	0.6		2.6	0.7		1.9	18.0		1.3	11.3	0.0
Queue Length 95th (m)	8.4	9.1		8.5	9.4		5.0	29.4		3.8	19.5	0.0
Internal Link Dist (m)		526.4			354.4			908.4			664.4	
Turn Bay Length (m)	30.0			20.0			135.0			130.0		120.0
Base Capacity (vph)	419	517		402	518		815	1238		738	1196	1107
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	0.05	0.08		0.05	0.09		0.05	0.26		0.04	0.18	0.02
Intersection Summary												
Cycle Length: 92.5												
Actuated Cycle Length: 72.9												
Natural Cycle: 65												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.26												

Lane Group	Ø3	Ø7
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	7
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	5.0	5.0
Total Split (s)	5.0	5.0
Total Split (%)	5%	5%
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes
Recall Mode	Max	Max
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		
Approach LOS		
Queue Length 50th (m)		
Queue Length 95th (m)		
Internal Link Dist (m)		
Turn Bay Length (m)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings 7: Stittsville Main Street & West Ridge Drive

Future Background 2046 - AM

10/09/2025

Intersection Signal Delay (s/veh): 7.5

Intersection LOS: A

Intersection Capacity Utilization 52.9%

ICU Level of Service A

Analysis Period (min) 15

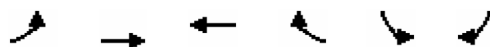
Splits and Phases: 7: Stittsville Main Street & West Ridge Drive



Lanes, Volumes, Timings
10: Fernbank Road & Robert Grant Avenue

Future Background 2046 - AM

10/09/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø9
Lane Configurations							
Traffic Volume (vph)	146	632	348	140	299	167	
Future Volume (vph)	146	632	348	140	299	167	
Satd. Flow (prot)	1695	1767	1733	1369	1679	1459	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1695	1767	1733	1369	1679	1459	
Satd. Flow (RTOR)				140		167	
Lane Group Flow (vph)	146	632	348	140	299	167	
Turn Type	Prot	NA	NA	Perm	Prot	Perm	
Protected Phases	5	2	6		4		9
Permitted Phases				6		4	
Detector Phase	5	2	6	6	4	4	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0	3.0
Minimum Split (s)	11.2	24.2	24.2	24.2	30.0	30.0	5.0
Total Split (s)	28.0	35.0	30.0	30.0	40.0	40.0	5.0
Total Split (%)	27.2%	34.0%	29.1%	29.1%	38.8%	38.8%	5%
Yellow Time (s)	4.6	4.6	4.6	4.6	3.3	3.3	2.0
All-Red Time (s)	1.6	1.6	1.6	1.6	2.7	2.7	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.2	6.2	6.2	6.2	6.0	6.0	
Lead/Lag	Lead						Lag
Lead-Lag Optimize?	Yes						Yes
Recall Mode	None	Max	Max	Max	None	None	Max
Act Effect Green (s)	12.3	47.8	24.2	24.2	19.3	19.3	
Actuated g/C Ratio	0.15	0.60	0.30	0.30	0.24	0.24	
v/c Ratio	0.56	0.60	0.66	0.27	0.73	0.35	
Control Delay (s/veh)	40.9	13.8	34.1	6.6	39.3	6.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	40.9	13.8	34.1	6.6	39.3	6.4	
LOS	D	B	C	A	D	A	
Approach Delay (s/veh)		18.9	26.2		27.5		
Approach LOS		B	C		C		
Queue Length 50th (m)	20.3	52.6	44.7	0.0	40.9	0.0	
Queue Length 95th (m)	41.7	108.6	#101.8	13.9	72.3	13.7	
Internal Link Dist (m)		1200.8	1406.4		1360.2		
Turn Bay Length (m)	105.0			115.0	85.0		
Base Capacity (vph)	471	1281	527	513	729	727	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.31	0.49	0.66	0.27	0.41	0.23	

Intersection Summary

Cycle Length: 103
Actuated Cycle Length: 79.5
Natural Cycle: 75
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.73

Lanes, Volumes, Timings
10: Fernbank Road & Robert Grant Avenue

Future Background 2046 - AM

10/09/2025

Intersection Signal Delay (s/veh): 23.3

Intersection LOS: C

Intersection Capacity Utilization 62.8%

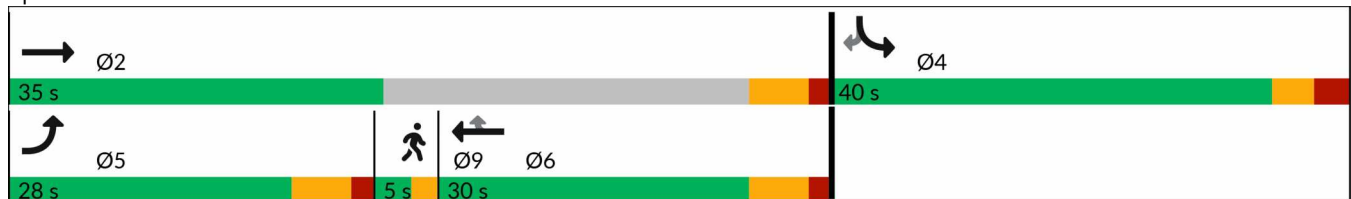
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Fernbank Road & Robert Grant Avenue



Lanes, Volumes, Timings
1: West Ridge Drive & Hazeldean Road

Future Background 2046 - PM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	301	75	335	342	53	32	27	189	28	21	3
Future Volume (vph)	21	301	75	335	342	53	32	27	189	28	21	3
Satd. Flow (prot)	1729	1738	0	1712	1753	0	0	1773	1517	1729	1642	0
Flt Permitted	0.528			0.538				0.818		0.719		
Satd. Flow (perm)	961	1738	0	969	1753	0	0	1489	1497	1307	1642	0
Satd. Flow (RTOR)		21			13				189		3	
Lane Group Flow (vph)	21	376	0	335	395	0	0	59	189	28	24	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8		8	4		
Detector Phase	2	2		6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	36.3	36.3		36.3	36.3		27.1	27.1	27.1	27.1	27.1	
Total Split (s)	48.0	48.0		48.0	48.0		37.0	37.0	37.0	37.0	37.0	
Total Split (%)	56.5%	56.5%		56.5%	56.5%		43.5%	43.5%	43.5%	43.5%	43.5%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.6	2.6		2.6	2.6		3.1	3.1	3.1	3.1	3.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.3	6.3		6.3	6.3			6.1	6.1	6.1	6.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None	None	None	None	
Act Effect Green (s)	44.6	44.6		44.6	44.6			10.3	10.3	10.3	10.3	
Actuated g/C Ratio	0.66	0.66		0.66	0.66			0.15	0.15	0.15	0.15	
v/c Ratio	0.03	0.32		0.52	0.34			0.26	0.49	0.14	0.10	
Control Delay (s/veh)	4.3	5.6		9.7	5.9			27.0	9.1	25.2	22.2	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay (s/veh)	4.3	5.6		9.7	5.9			27.0	9.1	25.2	22.2	
LOS	A	A		A	A			C	A	C	C	
Approach Delay (s/veh)		5.6			7.6			13.4			23.8	
Approach LOS		A			A			B			C	
Queue Length 50th (m)	0.8	15.5		17.8	17.0			6.2	0.0	2.9	2.2	
Queue Length 95th (m)	2.7	28.1		38.3	30.2			15.5	14.7	9.1	7.8	
Internal Link Dist (m)		1946.8			547.5			1603.9			236.0	
Turn Bay Length (m)	65.0			110.0						35.0		
Base Capacity (vph)	636	1157		641	1164			688	793	604	761	
Starvation Cap Reductn	0	0		0	0			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.03	0.32		0.52	0.34			0.09	0.24	0.05	0.03	
Intersection Summary												
Cycle Length: 85												
Actuated Cycle Length: 67.3												
Natural Cycle: 65												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.52												

Lanes, Volumes, Timings
1: West Ridge Drive & Hazeldean Road

Future Background 2046 - PM

10/09/2025

Intersection Signal Delay (s/veh): 8.6

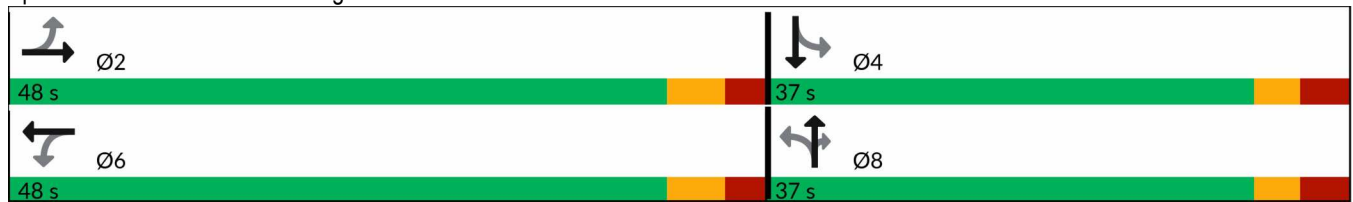
Intersection LOS: A

Intersection Capacity Utilization 67.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: West Ridge Drive & Hazeldean Road



Lanes, Volumes, Timings
2: Carp Road & Hazeldean Road

Future Background 2046 - PM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	139	305	101	27	500	407	131	410	35	360	590	241
Future Volume (vph)	139	305	101	27	500	407	131	410	35	360	590	241
Satd. Flow (prot)	1679	3254	0	1478	1750	1488	1712	3265	0	1695	3357	1517
Flt Permitted	0.104			0.513			0.950			0.950		
Satd. Flow (perm)	184	3254	0	797	1750	1454	1708	3265	0	1692	3357	1477
Satd. Flow (RTOR)		41				352		6				241
Lane Group Flow (vph)	139	406	0	27	500	407	131	445	0	360	590	241
Turn Type	pm+pt	NA		Perm	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8		8						6
Detector Phase	7	4		8	8	8	5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	11.2	39.6		39.6	39.6	39.6	11.0	32.1		11.0	32.1	32.1
Total Split (s)	13.0	58.0		45.0	45.0	45.0	19.0	34.0		38.0	53.0	53.0
Total Split (%)	10.0%	44.6%		34.6%	34.6%	34.6%	14.6%	26.2%		29.2%	40.8%	40.8%
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	2.5	2.9		2.9	2.9	2.9	2.3	2.4		2.3	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)	6.2	6.6		6.6	6.6	6.6	6.0	6.1		6.0	6.1	6.1
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	C-Max
Act Effect Green (s)	51.7	51.3		38.3	38.3	38.3	12.4	29.8		30.2	47.5	47.5
Actuated g/C Ratio	0.40	0.39		0.29	0.29	0.29	0.10	0.23		0.23	0.37	0.37
v/c Ratio	0.92	0.31		0.11	0.97	0.60	0.80	0.59		0.91	0.48	0.35
Control Delay (s/veh)	85.3	25.0		35.2	78.4	10.5	90.1	48.4		76.8	33.5	4.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	85.3	25.0		35.2	78.4	10.5	90.1	48.4		76.8	33.5	4.9
LOS	F	C		D	E	B	F	D		E	C	A
Approach Delay (s/veh)		40.3			47.6			57.9			40.8	
Approach LOS		D			D			E			D	
Queue Length 50th (m)	23.1	33.3		5.1	126.5	10.3	33.2	54.2		88.8	61.3	0.0
Queue Length 95th (m)	#58.2	45.9		12.8	#195.1	41.7	#64.6	72.1		#140.2	78.5	16.9
Internal Link Dist (m)		547.5			891.6			724.2			1541.5	
Turn Bay Length (m)	90.0			65.0			45.0			85.0		100.0
Base Capacity (vph)	151	1311		235	516	677	171	752		417	1227	692
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	0.92	0.31		0.11	0.97	0.60	0.77	0.59		0.86	0.48	0.35

Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 129 (99%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Lanes, Volumes, Timings

2: Carp Road & Hazeldean Road

Future Background 2046 - PM

10/09/2025

Maximum v/c Ratio: 0.97

Intersection Signal Delay (s/veh): 45.7

Intersection LOS: D

Intersection Capacity Utilization 99.4%

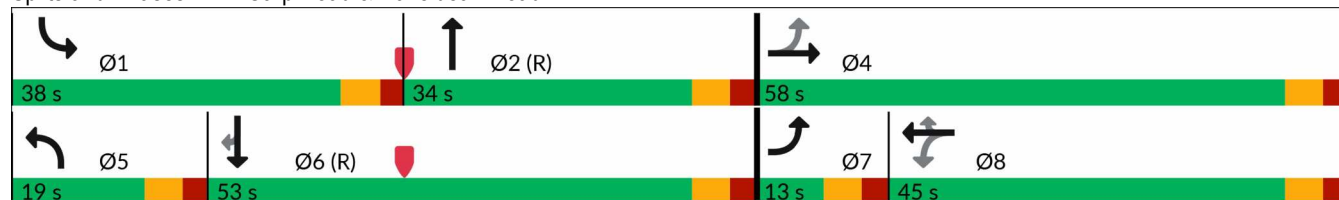
ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Carp Road & Hazeldean Road



Lanes, Volumes, Timings
3: Stittsville Main Street & Hazeldean Road

Future Background 2046 - PM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	672	56	470	810	212	135	84	441	252	117	45
Future Volume (vph)	49	672	56	470	810	212	135	84	441	252	117	45
Satd. Flow (prot)	1729	3194	0	1712	3194	0	1695	1750	1532	1679	1784	1502
Flt Permitted	0.280			0.172			0.682			0.656		
Satd. Flow (perm)	509	3194	0	309	3194	0	1213	1750	1501	1152	1784	1476
Satd. Flow (RTOR)		7			28				362			150
Lane Group Flow (vph)	49	728	0	470	1022	0	135	84	441	252	117	45
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.5	36.7		11.5	36.5		11.3	36.9	36.9	11.3	36.9	36.9
Total Split (s)	22.0	42.0		22.0	42.0		19.0	37.0	37.0	19.0	37.0	37.0
Total Split (%)	18.3%	35.0%		18.3%	35.0%		15.8%	30.8%	30.8%	15.8%	30.8%	30.8%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	3.0		2.8	2.8		3.0	3.6	3.6	3.0	3.6	3.6
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)	6.5	6.7		6.5	6.5		6.3	6.9	6.9	6.3	6.9	6.9
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effect Green (s)	42.6	35.3		70.6	59.5		29.1	17.0	17.0	31.4	18.1	18.1
Actuated g/C Ratio	0.36	0.29		0.59	0.50		0.24	0.14	0.14	0.26	0.15	0.15
v/c Ratio	0.19	0.77		0.91	0.64		0.40	0.34	0.84	0.71	0.43	0.13
Control Delay (s/veh)	17.5	44.8		49.2	26.7		33.6	47.6	24.9	45.7	49.8	0.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.5	44.8		49.2	26.7		33.6	47.6	24.9	45.7	49.8	0.8
LOS	B	D		D	C		C	D	C	D	D	A
Approach Delay (s/veh)		43.1			33.7			29.5			41.9	
Approach LOS		D			C			C			D	
Queue Length 50th (m)	4.3	81.6		75.4	87.4		24.8	18.6	17.6	50.2	26.4	0.0
Queue Length 95th (m)	12.8	104.2		#187.5	#155.6		33.6	29.1	51.1	61.5	38.4	0.0
Internal Link Dist (m)		891.6			2777.7			546.2			989.0	
Turn Bay Length (m)	55.0			300.0			50.0		35.0	55.0		110.0
Base Capacity (vph)	373	944		516	1597		356	438	647	357	447	482
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.77		0.91	0.64		0.38	0.19	0.68	0.71	0.26	0.09

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 113 (94%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

Lanes, Volumes, Timings

3: Stittsville Main Street & Hazeldean Road

Future Background 2046 - PM

10/09/2025

Maximum v/c Ratio: 0.91

Intersection Signal Delay (s/veh): 36.1

Intersection LOS: D

Intersection Capacity Utilization 91.0%

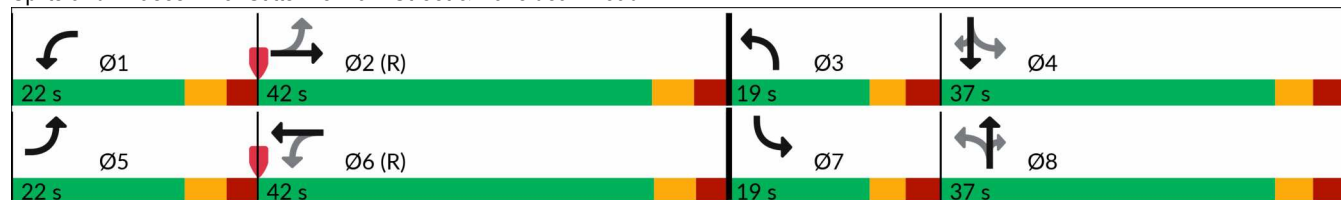
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Stittsville Main Street & Hazeldean Road



Lanes, Volumes, Timings
4: Stittsville Main Street & Carp Road

Future Background 2046 - PM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	82	157	575	177	131	55	422	522	156	68	508	60
Future Volume (vph)	82	157	575	177	131	55	422	522	156	68	508	60
Satd. Flow (prot)	1729	1820	1488	1729	1696	0	1647	1722	0	1729	1784	1547
Flt Permitted	0.640			0.485			0.148			0.152		
Satd. Flow (perm)	1147	1820	1426	870	1696	0	256	1722	0	277	1784	1516
Satd. Flow (RTOR)			372		30			17				154
Lane Group Flow (vph)	82	157	575	177	186	0	422	678	0	68	508	60
Turn Type	Perm	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0		5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	28.1	28.1	28.1	10.1	28.1		10.5	29.5		10.5	29.5	29.5
Total Split (s)	29.0	29.0	29.0	15.0	44.0		14.0	32.0		14.0	32.0	32.0
Total Split (%)	32.2%	32.2%	32.2%	16.7%	48.9%		15.6%	35.6%		15.6%	35.6%	35.6%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8		2.2	2.2		2.2	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		-3.0	-1.0		0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	5.1	5.1	5.1		2.5	4.5		5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lag	Lead			Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	C-Max
Act Effect Green (s)	20.3	20.3	20.3	34.9	34.9		46.2	34.9		33.8	26.5	26.5
Actuated g/C Ratio	0.23	0.23	0.23	0.39	0.39		0.51	0.39		0.38	0.29	0.29
v/c Ratio	0.32	0.38	0.94	0.41	0.27		1.14	1.00		0.31	0.97	0.11
Control Delay (s/veh)	30.8	31.1	37.6	20.7	15.6		117.5	63.9		18.1	65.2	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	30.8	31.1	37.6	20.7	15.6		117.5	63.9		18.1	65.2	0.4
LOS	C	C	D	C	B		F	E		B	E	A
Approach Delay (s/veh)		35.7			18.1			84.5			54.1	
Approach LOS		D			B			F			D	
Queue Length 50th (m)	11.2	21.8	35.3	18.8	16.4		~81.0	~144.8		6.5	86.3	0.0
Queue Length 95th (m)	23.3	38.2	#100.0	32.4	30.1		#139.9	#211.8		13.9	#147.3	0.0
Internal Link Dist (m)		724.2			101.6			1212.9			546.2	
Turn Bay Length (m)	40.0		55.0				75.0			60.0		50.0
Base Capacity (vph)	304	483	651	432	750		370	677		244	525	555
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	0.27	0.33	0.88	0.41	0.25		1.14	1.00		0.28	0.97	0.11

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 2 (2%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

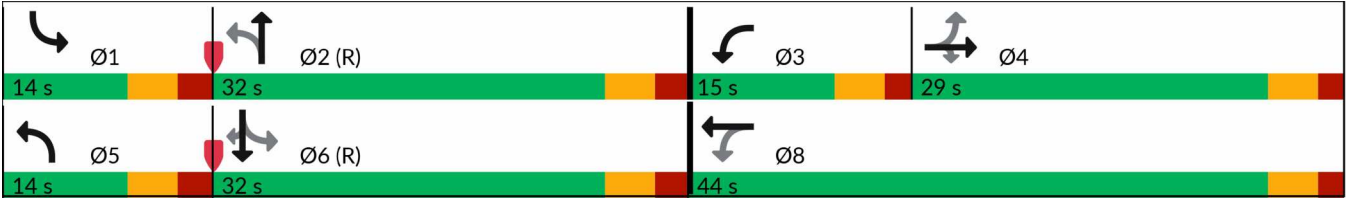
Natural Cycle: 90

Control Type: Actuated-Coordinated

Lanes, Volumes, Timings
4: Stittsville Main Street & Carp Road

Maximum v/c Ratio: 1.14	
Intersection Signal Delay (s/veh): 55.9	Intersection LOS: E
Intersection Capacity Utilization 91.6%	ICU Level of Service F
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 4: Stittsville Main Street & Carp Road



Lanes, Volumes, Timings
5: Stittsville Main Street & Abbott Street

Future Background 2046 - PM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	44	34	74	50	124	38	731	67	98	850	72
Future Volume (vph)	36	44	34	74	50	124	38	731	67	98	850	72
Satd. Flow (prot)	1729	1614	0	1712	1547	0	1729	1750	1517	1712	1761	0
Flt Permitted	0.481			0.706			0.236			0.330		
Satd. Flow (perm)	873	1614	0	1241	1547	0	430	1750	1470	594	1761	0
Satd. Flow (RTOR)		34			124				67		8	
Lane Group Flow (vph)	36	78	0	74	174	0	38	731	67	98	922	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	30.3	30.3		30.3	30.3		28.2	28.2	28.2	28.2	28.2	
Total Split (s)	33.0	33.0		33.0	33.0		57.0	57.0	57.0	57.0	57.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		63.3%	63.3%	63.3%	63.3%	63.3%	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.9	1.9	1.9	1.9	1.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.3	5.3		5.3	5.3		5.2	5.2	5.2	5.2	5.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)	11.9	11.9		11.9	11.9		67.6	67.6	67.6	67.6	67.6	
Actuated g/C Ratio	0.13	0.13		0.13	0.13		0.75	0.75	0.75	0.75	0.75	
v/c Ratio	0.31	0.32		0.45	0.56		0.12	0.56	0.06	0.22	0.70	
Control Delay (s/veh)	42.0	25.2		44.7	19.4		4.6	7.1	1.1	3.3	5.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	42.0	25.2		44.7	19.4		4.6	7.1	1.1	3.3	5.8	
LOS	D	C		D	B		A	A	A	A	A	
Approach Delay (s/veh)		30.5			27.0			6.5			5.6	
Approach LOS		C			C			A			A	
Queue Length 50th (m)	5.8	7.0		12.2	8.0		1.4	40.4	0.0	2.2	22.4	
Queue Length 95th (m)	14.1	18.5		24.0	25.5		5.0	81.5	3.2	m4.0	m50.6	
Internal Link Dist (m)		796.3			1191.9			1402.3			1212.9	
Turn Bay Length (m)	35.0			30.0			20.0			30.0		
Base Capacity (vph)	268	520		381	561		323	1315	1121	446	1325	
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	0.13	0.15		0.19	0.31		0.12	0.56	0.06	0.22	0.70	
Intersection Summary												
Cycle Length: 90												
Actuated Cycle Length: 90												
Offset: 9 (10%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green												
Natural Cycle: 80												
Control Type: Actuated-Coordinated												

Lanes, Volumes, Timings
5: Stittsville Main Street & Abbott Street

Future Background 2046 - PM

10/09/2025

Maximum v/c Ratio: 0.70

Intersection Signal Delay (s/veh): 9.6

Intersection LOS: A

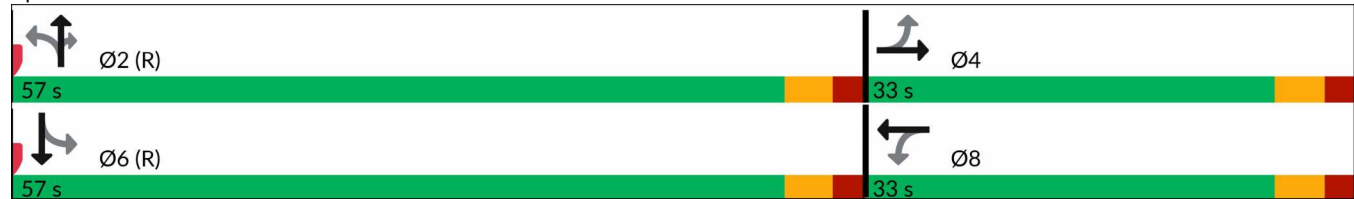
Intersection Capacity Utilization 99.3%

ICU Level of Service F

Analysis Period (min) 15

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

Splits and Phases: 5: Stittsville Main Street & Abbott Street



Lanes, Volumes, Timings
6: Stittsville Main Street & Fernbank Road

Future Background 2046 - PM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	50	8	151	146	145	17	401	61	63	569	72
Future Volume (vph)	30	50	8	151	146	145	17	401	61	63	569	72
Satd. Flow (prot)	1679	1688	0	1662	1750	1488	1429	1687	0	1601	1748	0
Flt Permitted	0.664			0.719			0.325			0.458		
Satd. Flow (perm)	1171	1688	0	1253	1750	1465	489	1687	0	767	1748	0
Satd. Flow (RTOR)		8				145		12			10	
Lane Group Flow (vph)	30	58	0	151	146	145	17	462	0	63	641	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	26.6	26.6		26.6	26.6	26.6	24.9	24.9		24.9	24.9	
Total Split (s)	37.6	37.6		37.6	37.6	37.6	46.9	46.9		46.9	46.9	
Total Split (%)	44.5%	44.5%		44.5%	44.5%	44.5%	55.5%	55.5%		55.5%	55.5%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.3	3.3		3.3	3.3	
All-Red Time (s)	4.6	4.6		4.6	4.6	4.6	3.6	3.6		3.6	3.6	
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	7.6	6.9	6.9		6.9	6.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	
Act Effect Green (s)	14.8	14.8		14.8	14.8	14.8	40.6	40.6		40.6	40.6	
Actuated g/C Ratio	0.21	0.21		0.21	0.21	0.21	0.58	0.58		0.58	0.58	
v/c Ratio	0.12	0.16		0.57	0.40	0.34	0.06	0.47		0.14	0.63	
Control Delay (s/veh)	22.3	20.1		33.2	26.4	6.6	9.0	11.2		9.2	14.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	22.3	20.1		33.2	26.4	6.6	9.0	11.2		9.2	14.1	
LOS	C	C		C	C	A	A	B		A	B	
Approach Delay (s/veh)		20.8			22.2			11.1			13.7	
Approach LOS		C			C			B			B	
Queue Length 50th (m)	3.2	5.3		17.6	16.3	0.0	0.9	29.7		3.3	47.9	
Queue Length 95th (m)	9.0	13.4		33.6	30.4	11.8	4.3	65.7		11.1	104.1	
Internal Link Dist (m)		720.0			1542.6			664.4			1402.3	
Turn Bay Length (m)	50.0			100.0		70.0	70.0			130.0		
Base Capacity (vph)	503	731		539	753	713	284	984		445	1019	
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	0.06	0.08		0.28	0.19	0.20	0.06	0.47		0.14	0.63	
Intersection Summary												
Cycle Length: 84.5												
Actuated Cycle Length: 69.9												
Natural Cycle: 60												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.63												

Lanes, Volumes, Timings 6: Stittsville Main Street & Fernbank Road

Future Background 2046 - PM

10/09/2025

Intersection Signal Delay (s/veh): 15.5

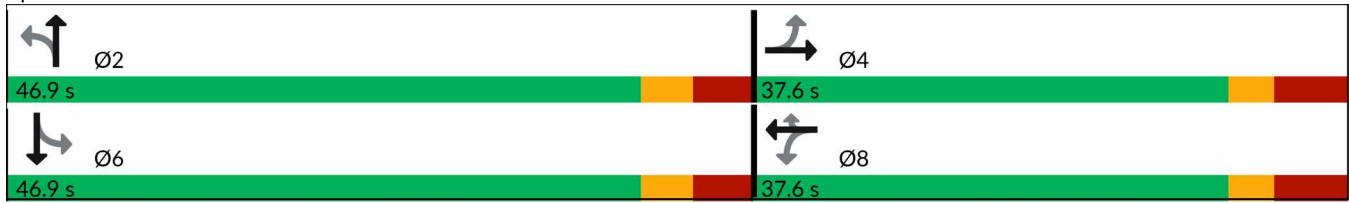
Intersection LOS: B

Intersection Capacity Utilization 86.4%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 6: Stittsville Main Street & Fernbank Road



Lanes, Volumes, Timings
7: Stittsville Main Street & West Ridge Drive

Future Background 2046 - PM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	31	56	19	10	38	98	328	56	66	479	48
Future Volume (vph)	24	31	56	19	10	38	98	328	56	66	479	48
Satd. Flow (prot)	1729	1621	0	1729	1576	0	1729	1696	0	1729	1733	1547
Flt Permitted	0.471			0.701			0.456			0.522		
Satd. Flow (perm)	857	1621	0	1276	1576	0	830	1696	0	948	1733	1515
Satd. Flow (RTOR)		56			38			15				65
Lane Group Flow (vph)	24	87	0	19	48	0	98	384	0	66	479	48
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	29.5	29.5		29.5	29.5		29.0	29.0		29.0	29.0	29.0
Total Split (s)	29.5	29.5		29.5	29.5		58.0	58.0		58.0	58.0	58.0
Total Split (%)	31.9%	31.9%		31.9%	31.9%		62.7%	62.7%		62.7%	62.7%	62.7%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	3.5	3.5		3.5	3.5		2.7	2.7		2.7	2.7	2.7
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lag	Lag		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Max	Max		Max	Max	Max
Act Effect Green (s)	10.2	10.2		10.2	10.2		52.4	52.4		52.4	52.4	52.4
Actuated g/C Ratio	0.13	0.13		0.13	0.13		0.69	0.69		0.69	0.69	0.69
v/c Ratio	0.21	0.33		0.11	0.20		0.17	0.33		0.10	0.40	0.05
Control Delay (s/veh)	36.2	18.7		32.6	16.0		6.4	6.5		5.7	7.4	1.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	36.2	18.7		32.6	16.0		6.4	6.5		5.7	7.4	1.1
LOS	D	B		C	B		A	A		A	A	A
Approach Delay (s/veh)		22.5			20.7			6.5			6.7	
Approach LOS		C			C			A			A	
Queue Length 50th (m)	3.3	4.3		2.6	1.4		5.0	21.5		3.2	30.1	0.0
Queue Length 95th (m)	10.2	16.6		8.5	10.4		11.3	35.9		7.7	48.6	2.3
Internal Link Dist (m)		526.4			354.4			908.4			664.4	
Turn Bay Length (m)	30.0			20.0			135.0			130.0		120.0
Base Capacity (vph)	260	531		387	505		570	1170		651	1190	1061
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	0.09	0.16		0.05	0.10		0.17	0.33		0.10	0.40	0.05

Intersection Summary

Cycle Length: 92.5

Actuated Cycle Length: 76.3

Natural Cycle: 65

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.40

Lane Group	Ø3	Ø7
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	7
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	5.0	5.0
Total Split (s)	5.0	5.0
Total Split (%)	5%	5%
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes
Recall Mode	Max	Max
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		
Approach LOS		
Queue Length 50th (m)		
Queue Length 95th (m)		
Internal Link Dist (m)		
Turn Bay Length (m)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings 7: Stittsville Main Street & West Ridge Drive

Future Background 2046 - PM

10/09/2025

Intersection Signal Delay (s/veh): 8.8

Intersection LOS: A

Intersection Capacity Utilization 58.7%

ICU Level of Service B

Analysis Period (min) 15

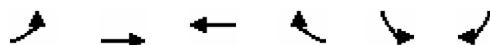
Splits and Phases: 7: Stittsville Main Street & West Ridge Drive



Lanes, Volumes, Timings
10: Fernbank Road & Robert Grant Avenue

Future Background 2046 - PM

10/09/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø9
Lane Configurations							
Traffic Volume (vph)	96	520	541	204	304	98	
Future Volume (vph)	96	520	541	204	304	98	
Satd. Flow (prot)	1712	1802	1802	1502	1679	1488	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1712	1802	1802	1502	1679	1488	
Satd. Flow (RTOR)				204		98	
Lane Group Flow (vph)	96	520	541	204	304	98	
Turn Type	Prot	NA	NA	Perm	Prot	Perm	
Protected Phases	5	2	6		4		9
Permitted Phases				6		4	
Detector Phase	5	2	6	6	4	4	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0	3.0
Minimum Split (s)	11.2	24.2	24.2	24.2	30.0	30.0	5.0
Total Split (s)	28.0	35.0	30.0	30.0	40.0	40.0	5.0
Total Split (%)	27.2%	34.0%	29.1%	29.1%	38.8%	38.8%	5%
Yellow Time (s)	4.6	4.6	4.6	4.6	3.3	3.3	2.0
All-Red Time (s)	1.6	1.6	1.6	1.6	2.7	2.7	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.2	6.2	6.2	6.2	6.0	6.0	
Lead/Lag	Lead						Lag
Lead-Lag Optimize?	Yes						Yes
Recall Mode	None	Max	Max	Max	None	None	Max
Act Effect Green (s)	9.8	42.5	24.7	24.7	18.5	18.5	
Actuated g/C Ratio	0.13	0.58	0.34	0.34	0.25	0.25	
v/c Ratio	0.42	0.50	0.90	0.32	0.72	0.22	
Control Delay (s/veh)	38.3	12.1	47.9	5.5	36.5	6.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	38.3	12.1	47.9	5.5	36.5	6.6	
LOS	D	B	D	A	D	A	
Approach Delay (s/veh)		16.2	36.3		29.2		
Approach LOS		B	D		C		
Queue Length 50th (m)	12.9	38.5	74.8	0.0	39.9	0.0	
Queue Length 95th (m)	29.0	79.3	#168.5	15.6	69.3	10.3	
Internal Link Dist (m)		1200.8	1406.4		1360.2		
Turn Bay Length (m)	105.0			115.0	85.0		
Base Capacity (vph)	524	1401	603	638	802	762	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.18	0.37	0.90	0.32	0.38	0.13	

Intersection Summary

Cycle Length: 103

Actuated Cycle Length: 73.7

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.90

Lanes, Volumes, Timings
10: Fernbank Road & Robert Grant Avenue

Future Background 2046 - PM

10/09/2025

Intersection Signal Delay (s/veh): 27.7

Intersection LOS: C

Intersection Capacity Utilization 68.8%

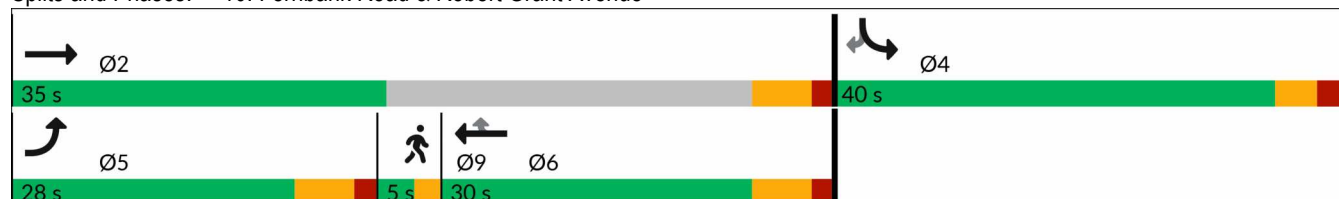
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Fernbank Road & Robert Grant Avenue



HCM Unsignalized Intersection Capacity Analysis 8: Stittsville Main Street & Flewellyn Road

Future Background 2046 - AM

10/09/2025

																				
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR								
Lane Configurations																				
Sign Control	Stop			Stop			Stop			Stop										
Traffic Volume (vph)	50	164	33	43	95	238	20	291	52	148	288	24								
Future Volume (vph)	50	164	33	43	95	238	20	291	52	148	288	24								
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
Hourly flow rate (vph)	50	164	33	43	95	238	20	291	52	148	288	24								
Direction, Lane #	EB 1	WB 1	NB 1	SB 1																
Volume Total (vph)	247	376	363	460																
Volume Left (vph)	50	43	20	148																
Volume Right (vph)	33	238	52	24																
Hadj (s)	0.04	-0.24	0.12	0.15																
Departure Headway (s)	8.8	8.0	8.3	8.2																
Degree Utilization, x	0.60	0.83	0.83	1.04																
Capacity (veh/h)	380	433	417	430																
Control Delay (s/veh)	24.4	39.8	41.2	83.1																
Approach Delay (s/veh)	24.4	39.8	41.2	83.1																
Approach LOS	C	E	E	F																
Intersection Summary																				
Delay	51.3																			
Level of Service	F																			
Intersection Capacity Utilization	83.9%			ICU Level of Service			E													
Analysis Period (min)	15																			

HCM Unsignalized Intersection Capacity Analysis 9: Stittsville Main Street & Fallowfield Road

Future Background 2046 - AM

10/09/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	33	136	17	21	54	51	3	172	42	128	138	17
Future Volume (vph)	33	136	17	21	54	51	3	172	42	128	138	17
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	33	136	17	21	54	51	3	172	42	128	138	17
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	186	126	217	283								
Volume Left (vph)	33	21	3	128								
Volume Right (vph)	17	51	42	17								
Hadj (s)	0.09	-0.12	0.03	0.22								
Departure Headway (s)	5.6	5.5	5.3	5.4								
Degree Utilization, x	0.29	0.19	0.32	0.42								
Capacity (veh/h)	590	582	636	634								
Control Delay (s/veh)	10.8	9.8	10.7	12.2								
Approach Delay (s/veh)	10.8	9.8	10.7	12.2								
Approach LOS	B	A	B	B								
Intersection Summary												
Delay			11.1									
Level of Service			B									
Intersection Capacity Utilization			53.1%	ICU Level of Service					A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 11: Shea Road & Flewellyn Road

Future Background 2046 - AM

10/09/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	382	32	1	170	19	15	234	1	41	202	69
Future Volume (Veh/h)	104	382	32	1	170	19	15	234	1	41	202	69
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	104	382	32	1	170	19	15	234	1	41	202	69
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	189			414			958	797	398	906	804	180
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	189			414			958	797	398	906	804	180
tC, single (s)	4.1			4.1			7.1	6.6	6.2	7.1	6.5	6.4
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.1	3.3	3.5	4.0	3.5
p0 queue free %	92			100			83	19	100	50	30	92
cM capacity (veh/h)	1367			1156			91	291	656	82	290	826
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	518	190	250	312								
Volume Left	104	1	15	41								
Volume Right	32	19	1	69								
cSH	1367	1156	257	243								
Volume to Capacity	0.08	0.00	0.97	1.28								
Queue Length 95th (m)	1.9	0.0	70.2	121.1								
Control Delay (s/veh)	2.2	0.1	91.1	195.5								
Lane LOS	A	A	F	F								
Approach Delay (s/veh)	2.2	0.1	91.1	195.5								
Approach LOS			F	F								
Intersection Summary												
Average Delay			66.9									
Intersection Capacity Utilization			80.3%		ICU Level of Service				D			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 8: Stittsville Main Street & Flewellyn Road

Future Background 2046 - PM

10/09/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	50	111	15	36	207	213	37	273	34	256	308	79
Future Volume (vph)	50	111	15	36	207	213	37	273	34	256	308	79
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	50	111	15	36	207	213	37	273	34	256	308	79
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	176	456	344	643								
Volume Left (vph)	50	36	37	256								
Volume Right (vph)	15	213	34	79								
Hadj (s)	0.05	-0.18	0.04	0.10								
Departure Headway (s)	8.9	7.5	8.0	7.8								
Degree Utilization, x	0.44	0.95	0.77	1.40								
Capacity (veh/h)	376	467	433	467								
Control Delay (s/veh)	18.6	57.1	33.1	213.9								
Approach Delay (s/veh)	18.6	57.1	33.1	213.9								
Approach LOS	C	F	D	F								
Intersection Summary												
Delay			110.1									
Level of Service			F									
Intersection Capacity Utilization			95.6%		ICU Level of Service				F			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 9: Stittsville Main Street & Fallowfield Road

Future Background 2046 - PM

10/09/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	20	70	8	23	138	87	7	157	27	54	163	36
Future Volume (vph)	20	70	8	23	138	87	7	157	27	54	163	36
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	20	70	8	23	138	87	7	157	27	54	163	36
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	98	248	191	253								
Volume Left (vph)	20	23	7	54								
Volume Right (vph)	8	87	27	36								
Hadj (s)	0.08	-0.16	-0.01	0.03								
Departure Headway (s)	5.6	5.1	5.2	5.2								
Degree Utilization, x	0.15	0.35	0.28	0.36								
Capacity (veh/h)	576	653	638	650								
Control Delay (s/veh)	9.6	10.8	10.2	11.1								
Approach Delay (s/veh)	9.6	10.8	10.2	11.1								
Approach LOS	A	B	B	B								
Intersection Summary												
Delay			10.6									
Level of Service			B									
Intersection Capacity Utilization			51.9%	ICU Level of Service		A						
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

11: Shea Road & Flewellyn Road

Future Background 2046 - PM

10/09/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	242	9	1	381	74	12	314	3	20	201	92
Future Volume (Veh/h)	61	242	9	1	381	74	12	314	3	20	201	92
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	61	242	9	1	381	74	12	314	3	20	201	92
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	455			251			981	826	247	949	793	418
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	455			251			981	826	247	949	793	418
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 %	95			100			87	0	100	0	34	85
cM capacity (veh/h)	1116			1326			89	293	797	0	304	633
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	312	456	329	313								
Volume Left	61	1	12	20								
Volume Right	9	74	3	92								
cSH	1116	1326	272	0								
Volume to Capacity	0.05	0.00	1.21	Err								
Queue Length 95th (m)	1.3	0.0	116.0	Err								
Control Delay (s/veh)	2.1	0.0	163.4	Err								
Lane LOS	A	A	F	F								
Approach Delay (s/veh)	2.1	0.0	163.4	Err								
Approach LOS			F	F								
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			79.5%		ICU Level of Service				D			
Analysis Period (min)			15									

Appendix E Synchro Outputs – Future Total 2046



Lanes, Volumes, Timings
1: West Ridge Drive & Hazeldean Road

Future Total 2046 - AM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	403	47	106	111	16	45	16	332	21	10	3
Future Volume (vph)	14	403	47	106	111	16	45	16	332	21	10	3
Satd. Flow (prot)	1729	1759	0	1712	1711	0	0	1703	1547	1729	1756	0
Flt Permitted	0.676			0.484				0.775		0.717		
Satd. Flow (perm)	1230	1759	0	872	1711	0	0	1369	1547	1305	1756	0
Satd. Flow (RTOR)		10			12				332		3	
Lane Group Flow (vph)	14	450	0	106	127	0	0	61	332	21	13	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8		8	4		
Detector Phase	2	2		6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	36.3	36.3		36.3	36.3		27.1	27.1	27.1	27.1	27.1	
Total Split (s)	48.0	48.0		48.0	48.0		37.0	37.0	37.0	37.0	37.0	
Total Split (%)	56.5%	56.5%		56.5%	56.5%		43.5%	43.5%	43.5%	43.5%	43.5%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.6	2.6		2.6	2.6		3.1	3.1	3.1	3.1	3.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.3	6.3		6.3	6.3			6.1	6.1	6.1	6.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None	None	None	None	
Act Effect Green (s)	41.8	41.8		41.8	41.8			11.1	11.1	11.1	11.1	
Actuated g/C Ratio	0.64	0.64		0.64	0.64			0.17	0.17	0.17	0.17	
v/c Ratio	0.02	0.40		0.19	0.12			0.26	0.62	0.10	0.04	
Control Delay (s/veh)	5.0	7.1		6.3	4.8			26.5	8.8	23.6	20.2	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay (s/veh)	5.0	7.1		6.3	4.8			26.5	8.8	23.6	20.2	
LOS	A	A		A	A			C	A	C	C	
Approach Delay (s/veh)		7.1			5.5			11.5			22.3	
Approach LOS		A			A			B			C	
Queue Length 50th (m)	0.5	20.4		4.2	4.3			6.5	0.0	2.2	1.0	
Queue Length 95th (m)	2.5	44.6		12.4	11.8			15.6	18.3	7.3	4.9	
Internal Link Dist (m)		1946.8			547.5			1603.9			236.0	
Turn Bay Length (m)	65.0			110.0						35.0		
Base Capacity (vph)	787	1129		558	1099			648	907	618	834	
Starvation Cap Reductn	0	0		0	0			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.02	0.40		0.19	0.12			0.09	0.37	0.03	0.02	
Intersection Summary												
Cycle Length: 85												
Actuated Cycle Length: 65.3												
Natural Cycle: 65												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.62												

Lanes, Volumes, Timings
1: West Ridge Drive & Hazeldean Road

Future Total 2046 - AM
10/09/2025

Intersection Signal Delay (s/veh): 8.8

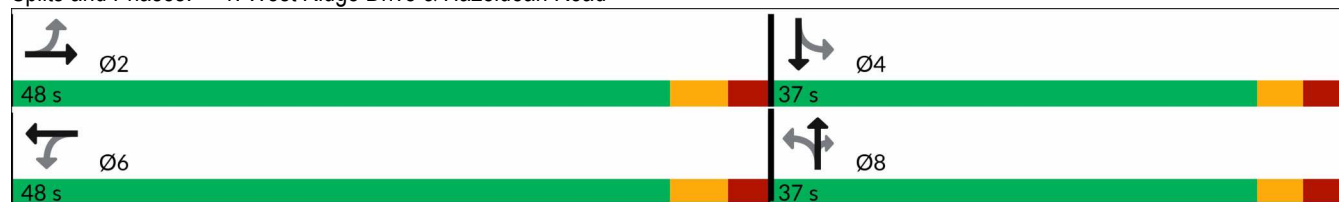
Intersection LOS: A

Intersection Capacity Utilization 70.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: West Ridge Drive & Hazeldean Road



Lanes, Volumes, Timings
2: Carp Road & Hazeldean Road

Future Total 2046 - AM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	389	335	79	27	185	270	44	551	13	301	399	108
Future Volume (vph)	389	335	79	27	185	270	44	551	13	301	399	108
Satd. Flow (prot)	1679	3077	0	1530	1640	1432	1601	3224	0	1544	3232	1300
Flt Permitted	0.429			0.509			0.950			0.950		
Satd. Flow (perm)	755	3077	0	818	1640	1405	1592	3224	0	1543	3232	1261
Satd. Flow (RTOR)		27				270		2				138
Lane Group Flow (vph)	389	414	0	27	185	270	44	564	0	301	399	108
Turn Type	pm+pt	NA		Perm	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	4			8		5	2		19	6	
Permitted Phases	4			8		8						6
Detector Phase	7	4		8	8	8	5	2		19	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0	10.0	5.0	10.0			10.0	10.0
Minimum Split (s)	11.2	39.6		39.6	39.6	39.6	11.0	32.1			32.1	32.1
Total Split (s)	15.0	55.0		40.0	40.0	40.0	16.0	33.0			54.0	54.0
Total Split (%)	12.0%	44.0%		32.0%	32.0%	32.0%	12.8%	26.4%			43.2%	43.2%
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	3.7	3.7			3.7	3.7
All-Red Time (s)	2.5	2.9		2.9	2.9	2.9	2.3	2.4			2.4	2.4
Lost Time Adjust (s)	-3.0	0.0		0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)	3.2	6.6		6.6	6.6	6.6	6.0	6.1			6.1	6.1
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag			Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes			Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Max			C-Max	C-Max
Act Effect Green (s)	38.3	34.9		19.9	19.9	19.9	8.9	30.8		34.6	64.8	64.8
Actuated g/C Ratio	0.31	0.28		0.16	0.16	0.16	0.07	0.25		0.28	0.52	0.52
v/c Ratio	1.22	0.47		0.21	0.71	0.60	0.39	0.71		0.70	0.24	0.15
Control Delay (s/veh)	160.3	35.8		46.8	63.9	10.8	64.5	49.5		32.4	19.2	2.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	160.3	35.8		46.8	63.9	10.8	64.5	49.5		32.4	19.2	2.2
LOS	F	D		D	E	B	E	D		C	B	A
Approach Delay (s/veh)		96.1			33.2			50.6			21.8	
Approach LOS		F			C			D			C	
Queue Length 50th (m)	~110.3	41.8		5.9	43.9	0.0	10.5	68.2		32.4	28.3	0.0
Queue Length 95th (m)	#165.1	51.6		13.8	63.4	22.6	22.2	#91.0		#64.4	46.6	6.3
Internal Link Dist (m)		547.5			891.6			724.2			1541.5	
Turn Bay Length (m)	90.0			65.0			45.0			85.0		100.0
Base Capacity (vph)	318	1207		218	438	573	134	796		427	1676	720
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	1.22	0.34		0.12	0.42	0.47	0.33	0.71		0.70	0.24	0.15

Intersection Summary

Cycle Length: 125

Actuated Cycle Length: 125

Offset: 114 (91%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Lane Group	Ø1	Ø9
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	1	9
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	11.0	11.0
Total Split (s)	16.0	21.0
Total Split (%)	13%	17%
Yellow Time (s)	3.7	3.7
All-Red Time (s)	2.3	2.3
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?	Yes	
Recall Mode	None	None
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		
Approach LOS		
Queue Length 50th (m)		
Queue Length 95th (m)		
Internal Link Dist (m)		
Turn Bay Length (m)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings

2: Carp Road & Hazeldean Road

Future Total 2046 - AM

10/09/2025

Maximum v/c Ratio: 1.22

Intersection Signal Delay (s/veh): 52.4

Intersection LOS: D

Intersection Capacity Utilization 93.9%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Carp Road & Hazeldean Road



Lanes, Volumes, Timings
3: Stittsville Main Street & Hazeldean Road

Future Total 2046 - AM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	616	30	250	415	178	56	46	388	324	65	44
Future Volume (vph)	44	616	30	250	415	178	56	46	388	324	65	44
Satd. Flow (prot)	1679	3274	0	1712	3058	0	1729	1767	1517	1695	1670	1502
Flt Permitted	0.424			0.270			0.715			0.568		
Satd. Flow (perm)	748	3274	0	486	3058	0	1300	1767	1481	1003	1670	1478
Satd. Flow (RTOR)		5			64				224			157
Lane Group Flow (vph)	44	646	0	250	593	0	56	46	388	324	65	44
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.5	36.7		11.5	36.5		11.3	36.9	36.9	11.3	36.9	36.9
Total Split (s)	12.0	47.0		12.0	47.0		19.0	37.0	37.0	19.0	37.0	37.0
Total Split (%)	10.4%	40.9%		10.4%	40.9%		16.5%	32.2%	32.2%	16.5%	32.2%	32.2%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	3.0		2.8	2.8		3.0	3.6	3.6	3.0	3.6	3.6
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)	6.5	6.7		6.5	6.5		6.3	6.9	6.9	6.3	6.9	6.9
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effect Green (s)	50.7	44.2		60.8	52.5		28.2	19.7	19.7	37.7	26.9	26.9
Actuated g/C Ratio	0.44	0.38		0.53	0.46		0.25	0.17	0.17	0.33	0.23	0.23
v/c Ratio	0.12	0.51		0.65	0.41		0.16	0.15	0.88	0.80	0.17	0.09
Control Delay (s/veh)	16.2	29.7		29.0	21.9		24.5	38.0	40.4	46.8	35.5	0.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.2	29.7		29.0	21.9		24.5	38.0	40.4	46.8	35.5	0.4
LOS	B	C		C	C		C	D	D	D	D	A
Approach Delay (s/veh)		28.8			24.0			38.4			40.4	
Approach LOS		C			C			D			D	
Queue Length 50th (m)	4.4	60.9		28.3	42.5		8.6	8.9	38.3	59.3	12.2	0.0
Queue Length 95th (m)	12.0	79.2		#82.2	66.6		15.1	17.1	69.1	74.6	21.7	0.0
Internal Link Dist (m)		891.6			2777.7			546.2			989.0	
Turn Bay Length (m)	55.0			300.0			50.0		35.0	55.0		110.0
Base Capacity (vph)	380	1260		385	1429		420	462	553	404	445	508
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	0.12	0.51		0.65	0.41		0.13	0.10	0.70	0.80	0.15	0.09

Intersection Summary

Cycle Length: 115

Actuated Cycle Length: 115

Offset: 85 (74%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Lanes, Volumes, Timings
3: Stittsville Main Street & Hazeldean Road

Future Total 2046 - AM
10/09/2025

Maximum v/c Ratio: 0.88	
Intersection Signal Delay (s/veh): 31.1	Intersection LOS: C
Intersection Capacity Utilization 86.9%	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: Stittsville Main Street & Hazeldean Road

 Ø1	 Ø2 (R)	 Ø3	 Ø4
12 s	47 s	19 s	37 s
 Ø5	 Ø6 (R)	 Ø7	 Ø8
12 s	47 s	19 s	37 s

Lanes, Volumes, Timings
4: Stittsville Main Street & Carp Road

Future Total 2046 - AM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	109	381	122	70	60	547	443	189	73	320	30
Future Volume (vph)	64	109	381	122	70	60	547	443	189	73	320	30
Satd. Flow (prot)	1662	1802	1473	1662	1627	0	1601	1679	0	1729	1767	1432
Flt Permitted	0.673			0.687			0.390			0.425		
Satd. Flow (perm)	1176	1802	1436	1197	1627	0	656	1679	0	772	1767	1410
Satd. Flow (RTOR)			381		56			30				104
Lane Group Flow (vph)	64	109	381	122	130	0	547	632	0	73	320	30
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		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)	28.1	28.1	28.1	28.1	28.1		10.5	29.5		10.5	29.5	29.5
Total Split (s)	30.0	30.0	30.0	30.0	30.0		15.0	35.0		15.0	35.0	35.0
Total Split (%)	37.5%	37.5%	37.5%	37.5%	37.5%		18.8%	43.8%		18.8%	43.8%	43.8%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8		2.2	2.2		2.2	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.1	5.1	5.1	5.1	5.1		5.5	5.5		5.5	5.5	5.5
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	C-Max
Act Effect Green (s)	14.2	14.2	14.2	14.2	14.2		55.2	45.3		36.2	29.5	29.5
Actuated g/C Ratio	0.18	0.18	0.18	0.18	0.18		0.69	0.57		0.45	0.37	0.37
v/c Ratio	0.31	0.34	0.67	0.58	0.39		0.79	0.66		0.17	0.49	0.05
Control Delay (s/veh)	31.1	30.5	9.5	40.3	19.7		22.1	16.9		7.8	22.7	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	31.1	30.5	9.5	40.3	19.7		22.1	16.9		7.8	22.7	0.2
LOS	C	C	A	D	B		C	B		A	C	A
Approach Delay (s/veh)		16.2			29.7			19.3			18.5	
Approach LOS		B			C			B			B	
Queue Length 50th (m)	8.7	14.8	0.0	17.3	9.9		43.4	45.2		2.9	36.7	0.0
Queue Length 95th (m)	17.5	25.8	20.4	30.5	22.1		#102.1	#137.1		8.7	59.3	0.0
Internal Link Dist (m)		724.2			101.6			1212.9			546.2	
Turn Bay Length (m)	40.0		55.0				75.0			60.0		50.0
Base Capacity (vph)	366	560	709	372	544		692	962		489	651	585
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.17	0.19	0.54	0.33	0.24		0.79	0.66		0.15	0.49	0.05

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Lanes, Volumes, Timings
4: Stittsville Main Street & Carp Road

Future Total 2046 - AM

10/09/2025

Maximum v/c Ratio: 0.79

Intersection Signal Delay (s/veh): 19.5

Intersection LOS: B

Intersection Capacity Utilization 87.4%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 4: Stittsville Main Street & Carp Road



Lanes, Volumes, Timings
5: Stittsville Main Street & Abbott Street

Future Total 2046 - AM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	105	23	50	44	117	12	892	89	71	470	16
Future Volume (vph)	39	105	23	50	44	117	12	892	89	71	470	16
Satd. Flow (prot)	1729	1661	0	1695	1522	0	1729	1750	1406	1491	1721	0
Flt Permitted	0.577			0.675			0.461			0.237		
Satd. Flow (perm)	1046	1661	0	1172	1522	0	832	1750	1368	372	1721	0
Satd. Flow (RTOR)		15			117				89		3	
Lane Group Flow (vph)	39	128	0	50	161	0	12	892	89	71	486	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	30.3	30.3		30.3	30.3		28.2	28.2	28.2	28.2	28.2	
Total Split (s)	31.0	31.0		31.0	31.0		49.0	49.0	49.0	49.0	49.0	
Total Split (%)	38.8%	38.8%		38.8%	38.8%		61.3%	61.3%	61.3%	61.3%	61.3%	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.9	1.9	1.9	1.9	1.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.3	5.3		5.3	5.3		5.2	5.2	5.2	5.2	5.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)	11.8	11.8		11.8	11.8		57.7	57.7	57.7	57.7	57.7	
Actuated g/C Ratio	0.15	0.15		0.15	0.15		0.72	0.72	0.72	0.72	0.72	
v/c Ratio	0.25	0.50		0.29	0.50		0.02	0.71	0.09	0.26	0.39	
Control Delay (s/veh)	33.6	34.1		34.1	15.9		4.0	10.9	1.2	5.8	4.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	33.6	34.1		34.1	15.9		4.0	10.9	1.2	5.8	4.0	
LOS	C	C		C	B		A	B	A	A	A	
Approach Delay (s/veh)		33.9			20.2			9.9			4.2	
Approach LOS		C			C			A			A	
Queue Length 50th (m)	5.4	16.2		7.0	6.1		0.4	58.9	0.0	1.5	10.7	
Queue Length 95th (m)	13.2	30.3		15.8	21.3		2.0	125.3	3.8	m6.1	28.4	
Internal Link Dist (m)		796.3			1191.9			1402.3			1212.9	
Turn Bay Length (m)	35.0			30.0			20.0			30.0		
Base Capacity (vph)	336	543		376	568		599	1262	1011	268	1241	
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	0.12	0.24		0.13	0.28		0.02	0.71	0.09	0.26	0.39	
Intersection Summary												
Cycle Length: 80												
Actuated Cycle Length: 80												
Offset: 7 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green												
Natural Cycle: 80												
Control Type: Actuated-Coordinated												

Lanes, Volumes, Timings

5: Stittsville Main Street & Abbott Street

Future Total 2046 - AM

10/09/2025

Maximum v/c Ratio: 0.71	
Intersection Signal Delay (s/veh): 11.5	Intersection LOS: B
Intersection Capacity Utilization 98.1%	ICU Level of Service F
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 5: Stittsville Main Street & Abbott Street



Lanes, Volumes, Timings
6: Stittsville Main Street & Fernbank Road

Future Total 2046 - AM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	259	16	44	111	68	12	475	90	32	340	53
Future Volume (vph)	128	259	16	44	111	68	12	475	90	32	340	53
Satd. Flow (prot)	1679	1699	0	1679	1685	1419	1441	1672	0	1662	1680	0
Flt Permitted	0.685			0.511			0.505			0.368		
Satd. Flow (perm)	1209	1699	0	900	1685	1400	765	1672	0	642	1680	0
Satd. Flow (RTOR)		4				68		16			14	
Lane Group Flow (vph)	128	275	0	44	111	68	12	565	0	32	393	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	26.6	26.6		26.6	26.6	26.6	24.9	24.9		24.9	24.9	
Total Split (s)	34.6	34.6		34.6	34.6	34.6	46.9	46.9		46.9	46.9	
Total Split (%)	42.5%	42.5%		42.5%	42.5%	42.5%	57.5%	57.5%		57.5%	57.5%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.3	3.3		3.3	3.3	
All-Red Time (s)	4.6	4.6		4.6	4.6	4.6	3.6	3.6		3.6	3.6	
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	7.6	6.9	6.9		6.9	6.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	
Act Effect Green (s)	16.9	16.9		16.9	16.9	16.9	40.2	40.2		40.2	40.2	
Actuated g/C Ratio	0.24	0.24		0.24	0.24	0.24	0.56	0.56		0.56	0.56	
v/c Ratio	0.45	0.68		0.21	0.28	0.18	0.03	0.60		0.09	0.41	
Control Delay (s/veh)	28.1	33.3		23.6	23.5	6.9	9.5	14.7		10.1	11.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	28.1	33.3		23.6	23.5	6.9	9.5	14.7		10.1	11.5	
LOS	C	C		C	C	A	A	B		B	B	
Approach Delay (s/veh)		31.7			18.4			14.6			11.4	
Approach LOS		C			B			B			B	
Queue Length 50th (m)	14.7	33.1		4.8	12.2	0.0	0.6	43.2		1.8	25.7	
Queue Length 95th (m)	28.8	55.1		12.2	23.8	8.1	3.5	94.7		7.1	57.5	
Internal Link Dist (m)		720.0			1542.6			664.4			1402.3	
Turn Bay Length (m)	50.0			100.0		70.0	70.0			130.0		
Base Capacity (vph)	457	645		340	638	572	429	944		359	948	
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	0.28	0.43		0.13	0.17	0.12	0.03	0.60		0.09	0.41	
Intersection Summary												
Cycle Length: 81.5												
Actuated Cycle Length: 71.7												
Natural Cycle: 60												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.68												

Lanes, Volumes, Timings
 6: Stittsville Main Street & Fernbank Road

Future Total 2046 - AM

10/09/2025

Intersection Signal Delay (s/veh): 18.5

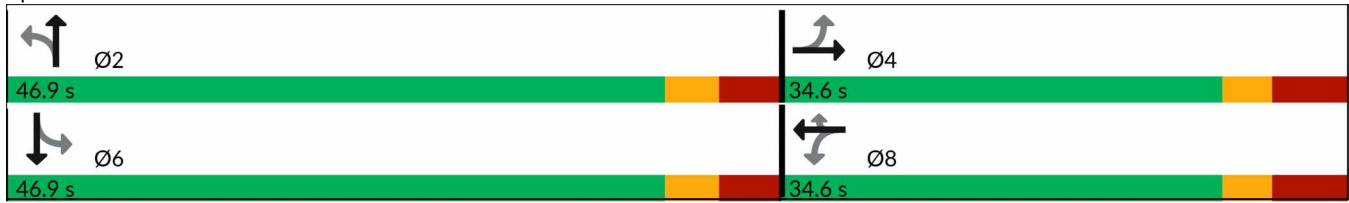
Intersection LOS: B

Intersection Capacity Utilization 74.4%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 6: Stittsville Main Street & Fernbank Road



Lanes, Volumes, Timings
7: Stittsville Main Street & West Ridge Drive

Future Total 2046 - AM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	4	98	19	5	40	60	396	22	27	245	20
Future Volume (vph)	19	4	98	19	5	40	60	396	22	27	245	20
Satd. Flow (prot)	1729	1520	0	1647	1536	0	1729	1717	0	1729	1655	1547
Flt Permitted	0.469			0.691			0.607			0.498		
Satd. Flow (perm)	846	1520	0	1194	1536	0	1100	1717	0	905	1655	1507
Satd. Flow (RTOR)		98			40			5				65
Lane Group Flow (vph)	19	102	0	19	45	0	60	418	0	27	245	20
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	29.5	29.5		29.5	29.5		29.0	29.0		29.0	29.0	29.0
Total Split (s)	29.5	29.5		29.5	29.5		58.0	58.0		58.0	58.0	58.0
Total Split (%)	31.9%	31.9%		31.9%	31.9%		62.7%	62.7%		62.7%	62.7%	62.7%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	3.5	3.5		3.5	3.5		2.7	2.7		2.7	2.7	2.7
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lag	Lag		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Max	Max		Max	Max	Max
Act Effect Green (s)	10.1	10.1		10.1	10.1		52.5	52.5		52.5	52.5	52.5
Actuated g/C Ratio	0.13	0.13		0.13	0.13		0.69	0.69		0.69	0.69	0.69
v/c Ratio	0.17	0.36		0.12	0.19		0.08	0.35		0.04	0.22	0.02
Control Delay (s/veh)	35.3	12.1		33.0	14.6		5.4	6.8		5.2	5.9	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	35.3	12.1		33.0	14.6		5.4	6.8		5.2	5.9	0.1
LOS	D	B		C	B		A	A		A	A	A
Approach Delay (s/veh)		15.8			20.0			6.6			5.4	
Approach LOS		B			C			A			A	
Queue Length 50th (m)	2.6	0.5		2.6	0.7		2.9	24.7		1.3	13.1	0.0
Queue Length 95th (m)	8.7	13.6		8.5	9.4		6.8	39.4		3.8	22.1	0.0
Internal Link Dist (m)		526.4			354.4			908.4			664.4	
Turn Bay Length (m)	30.0			20.0			135.0			130.0		120.0
Base Capacity (vph)	257	531		363	495		757	1183		622	1139	1057
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	0.07	0.19		0.05	0.09		0.08	0.35		0.04	0.22	0.02

Intersection Summary

Cycle Length: 92.5

Actuated Cycle Length: 76.2

Natural Cycle: 65

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.36

Lane Group	Ø3	Ø7
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	7
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	5.0	5.0
Total Split (s)	5.0	5.0
Total Split (%)	5%	5%
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes
Recall Mode	Max	Max
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		
Approach LOS		
Queue Length 50th (m)		
Queue Length 95th (m)		
Internal Link Dist (m)		
Turn Bay Length (m)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings 7: Stittsville Main Street & West Ridge Drive

Future Total 2046 - AM

10/09/2025

Intersection Signal Delay (s/veh): 8.3

Intersection LOS: A

Intersection Capacity Utilization 57.2%

ICU Level of Service B

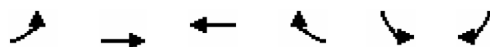
Analysis Period (min) 15

Splits and Phases: 7: Stittsville Main Street & West Ridge Drive



Lanes, Volumes, Timings
10: Fernbank Road & Robert Grant Avenue

Future Total 2046 - AM
10/09/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø9
Lane Configurations							
Traffic Volume (vph)	218	747	397	140	299	179	
Future Volume (vph)	218	747	397	140	299	179	
Satd. Flow (prot)	1695	1767	1733	1369	1679	1459	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1695	1767	1733	1369	1679	1459	
Satd. Flow (RTOR)				140		179	
Lane Group Flow (vph)	218	747	397	140	299	179	
Turn Type	Prot	NA	NA	Perm	Prot	Perm	
Protected Phases	5	2	6		4		9
Permitted Phases				6		4	
Detector Phase	5	2	6	6	4	4	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0	3.0
Minimum Split (s)	11.2	24.2	24.2	24.2	30.0	30.0	5.0
Total Split (s)	28.0	35.0	30.0	30.0	40.0	40.0	5.0
Total Split (%)	27.2%	34.0%	29.1%	29.1%	38.8%	38.8%	5%
Yellow Time (s)	4.6	4.6	4.6	4.6	3.3	3.3	2.0
All-Red Time (s)	1.6	1.6	1.6	1.6	2.7	2.7	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.2	6.2	6.2	6.2	6.0	6.0	
Lead/Lag	Lead						Lag
Lead-Lag Optimize?	Yes						Yes
Recall Mode	None	Max	Max	Max	None	None	Max
Act Effect Green (s)	15.6	51.2	24.2	24.2	20.2	20.2	
Actuated g/C Ratio	0.19	0.61	0.29	0.29	0.24	0.24	
v/c Ratio	0.69	0.69	0.79	0.28	0.74	0.37	
Control Delay (s/veh)	44.8	16.4	43.7	7.0	41.5	6.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	44.8	16.4	43.7	7.0	41.5	6.5	
LOS	D	B	D	A	D	A	
Approach Delay (s/veh)		22.8	34.1		28.4		
Approach LOS		C	C		C		
Queue Length 50th (m)	32.4	71.8	58.1	0.0	43.9	0.0	
Queue Length 95th (m)	61.2	145.9	#131.7	14.3	75.2	14.6	
Internal Link Dist (m)		1200.8	1406.4		1360.2		
Turn Bay Length (m)	105.0			115.0	85.0		
Base Capacity (vph)	448	1217	500	494	692	706	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.49	0.61	0.79	0.28	0.43	0.25	

Intersection Summary

Cycle Length: 103
Actuated Cycle Length: 83.7
Natural Cycle: 80
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.79

Lanes, Volumes, Timings
10: Fernbank Road & Robert Grant Avenue

Future Total 2046 - AM
10/09/2025

Intersection Signal Delay (s/veh): 27.2

Intersection LOS: C

Intersection Capacity Utilization 69.2%

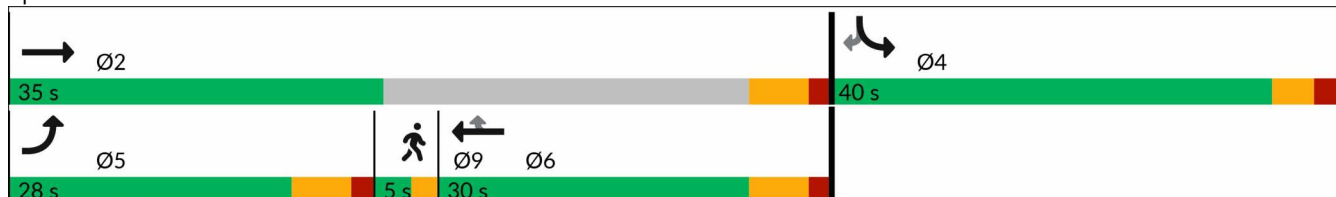
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Fernbank Road & Robert Grant Avenue



Lanes, Volumes, Timings
1: West Ridge Drive & Hazeldean Road

Future Total 2046 - PM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	301	75	407	342	53	32	27	232	28	21	3
Future Volume (vph)	21	301	75	407	342	53	32	27	232	28	21	3
Satd. Flow (prot)	1729	1738	0	1712	1753	0	0	1773	1517	1729	1642	0
Flt Permitted	0.527			0.538				0.818		0.719		
Satd. Flow (perm)	959	1738	0	969	1753	0	0	1489	1497	1307	1642	0
Satd. Flow (RTOR)		21			13				232		3	
Lane Group Flow (vph)	21	376	0	407	395	0	0	59	232	28	24	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8		8	4		
Detector Phase	2	2		6	6		8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	36.3	36.3		36.3	36.3		27.1	27.1	27.1	27.1	27.1	
Total Split (s)	48.0	48.0		48.0	48.0		37.0	37.0	37.0	37.0	37.0	
Total Split (%)	56.5%	56.5%		56.5%	56.5%		43.5%	43.5%	43.5%	43.5%	43.5%	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.6	2.6		2.6	2.6		3.1	3.1	3.1	3.1	3.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.3	6.3		6.3	6.3			6.1	6.1	6.1	6.1	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None	None	None	None	
Act Effect Green (s)	43.7	43.7		43.7	43.7			10.6	10.6	10.6	10.6	
Actuated g/C Ratio	0.66	0.66		0.66	0.66			0.16	0.16	0.16	0.16	
v/c Ratio	0.03	0.33		0.64	0.34			0.25	0.54	0.14	0.09	
Control Delay (s/veh)	4.7	5.9		13.2	6.1			26.5	9.0	24.7	21.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay (s/veh)	4.7	5.9		13.2	6.1			26.5	9.0	24.7	21.8	
LOS	A	A		B	A			C	A	C	C	
Approach Delay (s/veh)		5.8			9.7			12.5			23.4	
Approach LOS		A			A			B			C	
Queue Length 50th (m)	0.8	15.5		24.4	17.0			6.2	0.0	2.9	2.2	
Queue Length 95th (m)	3.0	30.9		59.8	33.4			15.3	15.9	9.0	7.7	
Internal Link Dist (m)		1946.8			547.5			1603.9			236.0	
Turn Bay Length (m)	65.0			110.0						35.0		
Base Capacity (vph)	627	1144		634	1151			692	820	608	765	
Starvation Cap Reductn	0	0		0	0			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.03	0.33		0.64	0.34			0.09	0.28	0.05	0.03	
Intersection Summary												
Cycle Length: 85												
Actuated Cycle Length: 66.7												
Natural Cycle: 70												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.64												

Lanes, Volumes, Timings
1: West Ridge Drive & Hazeldean Road

Future Total 2046 - PM

10/09/2025

Intersection Signal Delay (s/veh): 9.7

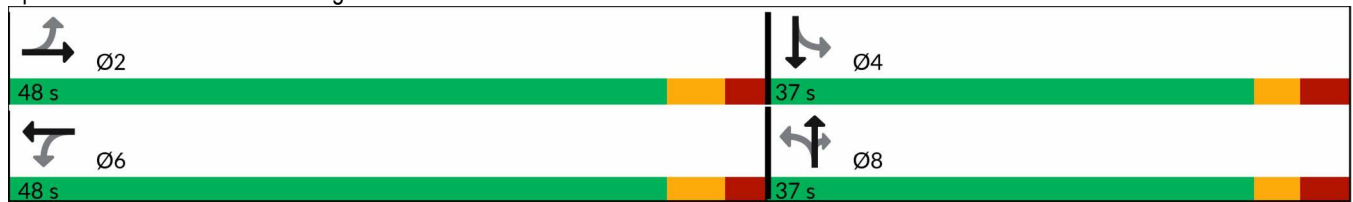
Intersection LOS: A

Intersection Capacity Utilization 71.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: West Ridge Drive & Hazeldean Road



Lanes, Volumes, Timings
2: Carp Road & Hazeldean Road

Future Total 2046 - PM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	182	305	101	27	500	407	131	487	35	360	722	313
Future Volume (vph)	182	305	101	27	500	407	131	487	35	360	722	313
Satd. Flow (prot)	1679	3254	0	1478	1750	1488	1712	3275	0	1695	3357	1517
Flt Permitted	0.125			0.513			0.950			0.950		
Satd. Flow (perm)	220	3254	0	797	1750	1454	1709	3275	0	1693	3357	1477
Satd. Flow (RTOR)		41				352		5				242
Lane Group Flow (vph)	182	406	0	27	500	407	131	522	0	360	722	313
Turn Type	pm+pt	NA		Perm	NA	Perm	Prot	NA		Prot	NA	Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8		8						6
Detector Phase	7	4		8	8	8	5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0		10.0	10.0	10.0	5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	11.2	39.6		39.6	39.6	39.6	11.0	32.1		11.0	32.1	32.1
Total Split (s)	13.0	58.0		45.0	45.0	45.0	19.0	34.0		38.0	53.0	53.0
Total Split (%)	10.0%	44.6%		34.6%	34.6%	34.6%	14.6%	26.2%		29.2%	40.8%	40.8%
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	3.7	3.7		3.7	3.7	3.7
All-Red Time (s)	2.5	2.9		2.9	2.9	2.9	2.3	2.4		2.3	2.4	2.4
Lost Time Adjust (s)	-2.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.2	6.6		6.6	6.6	6.6	6.0	6.1		6.0	6.1	6.1
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	C-Max
Act Effect Green (s)	53.7	51.3		38.3	38.3	38.3	12.4	29.8		30.2	47.5	47.5
Actuated g/C Ratio	0.41	0.39		0.29	0.29	0.29	0.10	0.23		0.23	0.37	0.37
v/c Ratio	0.96	0.31		0.11	0.97	0.60	0.80	0.69		0.91	0.59	0.45
Control Delay (s/veh)	86.2	25.0		35.2	78.4	10.5	90.1	51.6		76.8	35.9	9.8
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	86.2	25.0		35.2	78.4	10.5	90.1	51.6		76.8	35.9	9.8
LOS	F	C		D	E	B	F	D		E	D	A
Approach Delay (s/veh)		43.9			47.6			59.4			40.6	
Approach LOS		D			D			E			D	
Queue Length 50th (m)	30.3	33.3		5.1	126.5	10.3	33.2	65.6		88.8	78.8	12.1
Queue Length 95th (m)	#72.4	45.9		12.8	#195.1	41.7	#64.6	85.5		#140.2	99.1	36.1
Internal Link Dist (m)		547.5			891.6			724.2			1541.5	
Turn Bay Length (m)	90.0			65.0			45.0			85.0		100.0
Base Capacity (vph)	189	1311		235	516	677	171	753		417	1227	693
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	0.96	0.31		0.11	0.97	0.60	0.77	0.69		0.86	0.59	0.45

Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 129 (99%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Lanes, Volumes, Timings

2: Carp Road & Hazeldean Road

Future Total 2046 - PM

10/09/2025

Maximum v/c Ratio: 0.97

Intersection Signal Delay (s/veh): 46.4

Intersection LOS: D

Intersection Capacity Utilization 100.2%

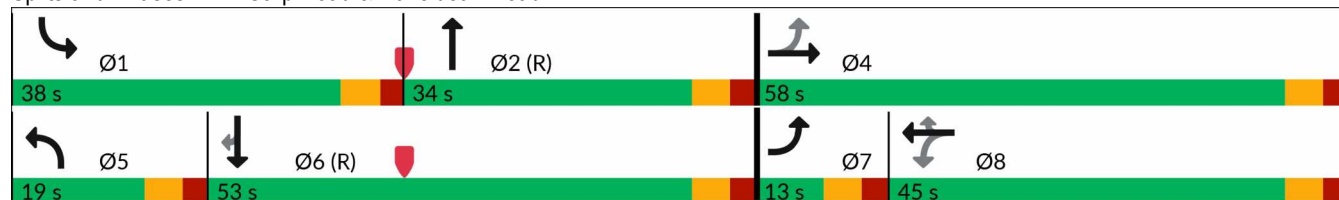
ICU Level of Service G

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Carp Road & Hazeldean Road



Lanes, Volumes, Timings
3: Stittsville Main Street & Hazeldean Road

Future Total 2046 - PM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	672	56	503	810	212	135	84	460	252	117	45
Future Volume (vph)	49	672	56	503	810	212	135	84	460	252	117	45
Satd. Flow (prot)	1729	3194	0	1712	3194	0	1695	1750	1532	1679	1784	1502
Flt Permitted	0.280			0.172			0.682			0.658		
Satd. Flow (perm)	509	3194	0	309	3194	0	1213	1750	1501	1155	1784	1476
Satd. Flow (RTOR)		7			28				362			150
Lane Group Flow (vph)	49	728	0	503	1022	0	135	84	460	252	117	45
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		4
Detector Phase	5	2		1	6		3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.5	36.7		11.5	36.5		11.3	36.9	36.9	11.3	36.9	36.9
Total Split (s)	22.0	42.0		22.0	42.0		19.0	37.0	37.0	19.0	37.0	37.0
Total Split (%)	18.3%	35.0%		18.3%	35.0%		15.8%	30.8%	30.8%	15.8%	30.8%	30.8%
Yellow Time (s)	3.7	3.7		3.7	3.7		3.3	3.3	3.3	3.3	3.3	3.3
All-Red Time (s)	2.8	3.0		2.8	2.8		3.0	3.6	3.6	3.0	3.6	3.6
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)	6.5	6.7		6.5	6.5		6.3	6.9	6.9	6.3	6.9	6.9
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effect Green (s)	42.6	35.3		69.7	58.6		30.0	17.8	17.8	32.3	19.0	19.0
Actuated g/C Ratio	0.36	0.29		0.58	0.49		0.25	0.15	0.15	0.27	0.16	0.16
v/c Ratio	0.19	0.77		1.00	0.65		0.39	0.32	0.87	0.69	0.41	0.13
Control Delay (s/veh)	17.7	44.8		68.4	27.5		32.6	46.3	28.0	43.8	48.3	0.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.7	44.8		68.4	27.5		32.6	46.3	28.0	43.8	48.3	0.7
LOS	B	D		E	C		C	D	C	D	D	A
Approach Delay (s/veh)		43.1			41.0			31.2			40.4	
Approach LOS		D			D			C			D	
Queue Length 50th (m)	4.5	81.6		88.6	90.8		24.2	18.2	22.6	48.9	25.8	0.0
Queue Length 95th (m)	12.8	104.2		#205.9	#156.0		33.6	29.1	58.4	61.4	38.4	0.0
Internal Link Dist (m)		891.6			2777.7			546.2			989.0	
Turn Bay Length (m)	55.0			300.0			50.0		35.0	55.0		110.0
Base Capacity (vph)	373	944		504	1573		365	438	647	366	447	482
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.77		1.00	0.65		0.37	0.19	0.71	0.69	0.26	0.09

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 113 (94%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 120

Control Type: Actuated-Coordinated

Lanes, Volumes, Timings

3: Stittsville Main Street & Hazeldean Road

Future Total 2046 - PM

10/09/2025

Maximum v/c Ratio: 1.00

Intersection Signal Delay (s/veh): 39.4

Intersection LOS: D

Intersection Capacity Utilization 92.9%

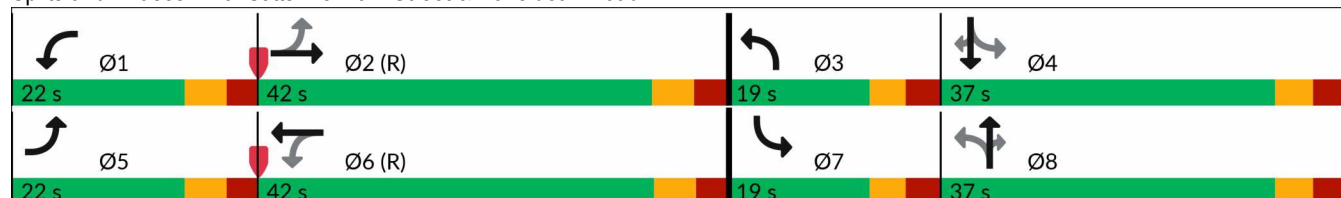
ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Stittsville Main Street & Hazeldean Road



Lanes, Volumes, Timings
4: Stittsville Main Street & Carp Road

Future Total 2046 - PM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	82	157	707	177	131	55	499	541	156	68	541	60
Future Volume (vph)	82	157	707	177	131	55	499	541	156	68	541	60
Satd. Flow (prot)	1729	1820	1488	1729	1696	0	1647	1724	0	1729	1784	1547
Flt Permitted	0.640			0.518			0.139			0.151		
Satd. Flow (perm)	1147	1820	1426	929	1696	0	240	1724	0	275	1784	1516
Satd. Flow (RTOR)			372		30			17				154
Lane Group Flow (vph)	82	157	707	177	186	0	499	697	0	68	541	60
Turn Type	Perm	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases		4		3	8		5	2		1	6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	4	3	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0		5.0	10.0		5.0	10.0	10.0
Minimum Split (s)	28.1	28.1	28.1	10.1	28.1		10.5	29.5		10.5	29.5	29.5
Total Split (s)	29.0	29.0	29.0	15.0	44.0		14.0	32.0		14.0	32.0	32.0
Total Split (%)	32.2%	32.2%	32.2%	16.7%	48.9%		15.6%	35.6%		15.6%	35.6%	35.6%
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8		2.2	2.2		2.2	2.2	2.2
Lost Time Adjust (s)	0.0	0.0	-3.0	0.0	0.0		0.0	-3.0		0.0	-1.0	0.0
Total Lost Time (s)	5.1	5.1	2.1	5.1	5.1		5.5	2.5		5.5	4.5	5.5
Lead/Lag	Lag	Lag	Lag	Lead			Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Max		None	C-Max	C-Max
Act Effect Green (s)	24.4	24.4	27.4	38.9	38.9		36.7	32.9		33.8	27.5	26.5
Actuated g/C Ratio	0.27	0.27	0.30	0.43	0.43		0.41	0.37		0.38	0.31	0.29
v/c Ratio	0.26	0.32	1.02	0.36	0.25		2.17	1.09		0.31	0.99	0.11
Control Delay (s/veh)	29.0	28.6	56.6	18.6	14.6		558.3	88.1		18.3	69.9	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	29.0	28.6	56.6	18.6	14.6		558.3	88.1		18.3	69.9	0.4
LOS	C	C	E	B	B		F	F		B	E	A
Approach Delay (s/veh)		49.5			16.5			284.3			58.4	
Approach LOS		D			B			F			E	
Queue Length 50th (m)	11.2	21.8	~82.7	18.8	16.4		~125.4	~144.4		6.5	92.7	0.0
Queue Length 95th (m)	23.3	38.2	#149.2	32.4	30.1		#191.9	#211.0		13.9	#157.1	0.0
Internal Link Dist (m)		724.2			101.6			1212.9			546.2	
Turn Bay Length (m)	40.0		55.0				75.0			60.0		50.0
Base Capacity (vph)	310	493	693	489	750		230	641		244	545	555
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	0.26	0.32	1.02	0.36	0.25		2.17	1.09		0.28	0.99	0.11

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 2 (2%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 130

Control Type: Actuated-Coordinated

Lanes, Volumes, Timings

4: Stittsville Main Street & Carp Road

Future Total 2046 - PM

10/09/2025

Maximum v/c Ratio: 2.17

Intersection Signal Delay (s/veh): 136.1

Intersection LOS: F

Intersection Capacity Utilization 99.1%

ICU Level of Service F

Analysis Period (min) 15

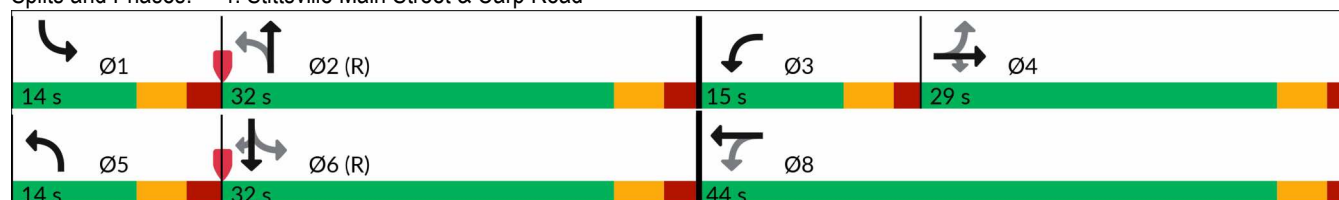
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 4: Stittsville Main Street & Carp Road



Lanes, Volumes, Timings
5: Stittsville Main Street & Abbott Street

Future Total 2046 - PM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	44	34	74	50	124	38	828	67	98	1015	72
Future Volume (vph)	36	44	34	74	50	124	38	828	67	98	1015	72
Satd. Flow (prot)	1729	1614	0	1712	1547	0	1729	1750	1517	1712	1765	0
Flt Permitted	0.481			0.706			0.159			0.281		
Satd. Flow (perm)	873	1614	0	1241	1547	0	289	1750	1470	506	1765	0
Satd. Flow (RTOR)		34			124				67		7	
Lane Group Flow (vph)	36	78	0	74	174	0	38	828	67	98	1087	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	30.3	30.3		30.3	30.3		28.2	28.2	28.2	28.2	28.2	
Total Split (s)	33.0	33.0		33.0	33.0		57.0	57.0	57.0	57.0	57.0	
Total Split (%)	36.7%	36.7%		36.7%	36.7%		63.3%	63.3%	63.3%	63.3%	63.3%	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.3	3.3	3.3	3.3	3.3	
All-Red Time (s)	2.0	2.0		2.0	2.0		1.9	1.9	1.9	1.9	1.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.3	5.3		5.3	5.3		5.2	5.2	5.2	5.2	5.2	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Max	C-Max	C-Max	C-Max	C-Max	
Act Effct Green (s)	11.9	11.9		11.9	11.9		67.6	67.6	67.6	67.6	67.6	
Actuated g/C Ratio	0.13	0.13		0.13	0.13		0.75	0.75	0.75	0.75	0.75	
v/c Ratio	0.31	0.32		0.45	0.56		0.18	0.63	0.06	0.26	0.82	
Control Delay (s/veh)	42.0	25.2		44.7	19.4		6.0	8.4	1.1	4.2	9.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	42.0	25.2		44.7	19.4		6.0	8.4	1.1	4.2	9.6	
LOS	D	C		D	B		A	A	A	A	A	
Approach Delay (s/veh)		30.5			27.0			7.8			9.2	
Approach LOS		C			C			A			A	
Queue Length 50th (m)	5.8	7.0		12.2	8.0		1.4	50.6	0.0	3.5	44.4	
Queue Length 95th (m)	14.1	18.5		24.0	25.5		5.8	103.7	3.2	m4.2	m144.9	
Internal Link Dist (m)		796.3			1191.9			1402.3			1212.9	
Turn Bay Length (m)	35.0			30.0			20.0			30.0		
Base Capacity (vph)	268	520		381	561		217	1315	1121	380	1328	
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	0.13	0.15		0.19	0.31		0.18	0.63	0.06	0.26	0.82	
Intersection Summary												
Cycle Length: 90												
Actuated Cycle Length: 90												
Offset: 9 (10%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green												
Natural Cycle: 90												
Control Type: Actuated-Coordinated												

Lanes, Volumes, Timings

5: Stittsville Main Street & Abbott Street

Future Total 2046 - PM

10/09/2025

Maximum v/c Ratio: 0.82	
Intersection Signal Delay (s/veh): 11.4	Intersection LOS: B
Intersection Capacity Utilization 108.5%	ICU Level of Service G
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 5: Stittsville Main Street & Abbott Street



Lanes, Volumes, Timings
6: Stittsville Main Street & Fernbank Road

Future Total 2046 - PM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	131	8	151	284	145	17	449	61	63	651	154
Future Volume (vph)	78	131	8	151	284	145	17	449	61	63	651	154
Satd. Flow (prot)	1679	1705	0	1662	1750	1488	1429	1690	0	1601	1722	0
Flt Permitted	0.501			0.668			0.185			0.404		
Satd. Flow (perm)	884	1705	0	1165	1750	1465	278	1690	0	677	1722	0
Satd. Flow (RTOR)		4				145		11			19	
Lane Group Flow (vph)	78	139	0	151	284	145	17	510	0	63	805	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	26.6	26.6		26.6	26.6	26.6	24.9	24.9		24.9	24.9	
Total Split (s)	37.6	37.6		37.6	37.6	37.6	46.9	46.9		46.9	46.9	
Total Split (%)	44.5%	44.5%		44.5%	44.5%	44.5%	55.5%	55.5%		55.5%	55.5%	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.3	3.3		3.3	3.3	
All-Red Time (s)	4.6	4.6		4.6	4.6	4.6	3.6	3.6		3.6	3.6	
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	7.6	6.9	6.9		6.9	6.9	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	
Act Effect Green (s)	18.4	18.4		18.4	18.4	18.4	40.3	40.3		40.3	40.3	
Actuated g/C Ratio	0.25	0.25		0.25	0.25	0.25	0.55	0.55		0.55	0.55	
v/c Ratio	0.35	0.32		0.52	0.65	0.30	0.11	0.55		0.17	0.84	
Control Delay (s/veh)	26.4	23.0		29.6	31.3	5.6	12.9	14.6		11.8	25.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	26.4	23.0		29.6	31.3	5.6	12.9	14.6		11.8	25.9	
LOS	C	C		C	C	A	B	B		B	C	
Approach Delay (s/veh)		24.2			24.5			14.5			24.9	
Approach LOS		C			C			B			C	
Queue Length 50th (m)	8.8	15.0		17.8	34.7	0.0	1.0	39.0		3.8	80.7	
Queue Length 95th (m)	19.6	28.1		33.6	56.4	11.4	5.5	87.5		13.1	#194.4	
Internal Link Dist (m)		720.0			1542.6			664.4			1402.3	
Turn Bay Length (m)	50.0			100.0		70.0	70.0			130.0		
Base Capacity (vph)	364	705		480	721	689	152	934		372	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	0.21	0.20		0.31	0.39	0.21	0.11	0.55		0.17	0.84	
Intersection Summary												
Cycle Length: 84.5												
Actuated Cycle Length: 73.3												
Natural Cycle: 70												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.84												

Lanes, Volumes, Timings
6: Stittsville Main Street & Fernbank Road

Future Total 2046 - PM
10/09/2025

Intersection Signal Delay (s/veh): 22.2

Intersection LOS: C

Intersection Capacity Utilization 97.8%

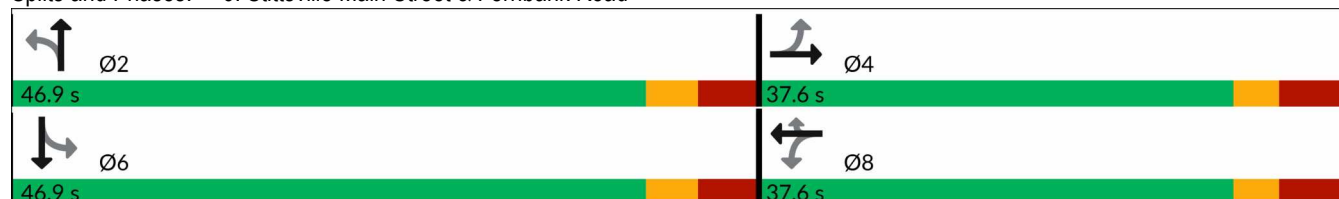
ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: Stittsville Main Street & Fernbank Road



Lanes, Volumes, Timings
7: Stittsville Main Street & West Ridge Drive

Future Total 2046 - PM

10/09/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	31	88	19	10	38	152	376	56	66	561	48
Future Volume (vph)	24	31	88	19	10	38	152	376	56	66	561	48
Satd. Flow (prot)	1729	1592	0	1729	1576	0	1729	1701	0	1729	1733	1547
Flt Permitted	0.473			0.681			0.401			0.488		
Satd. Flow (perm)	861	1592	0	1239	1576	0	730	1701	0	886	1733	1515
Satd. Flow (RTOR)		88			38			13				65
Lane Group Flow (vph)	24	119	0	19	48	0	152	432	0	66	561	48
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		2	2		6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	29.5	29.5		29.5	29.5		29.0	29.0		29.0	29.0	29.0
Total Split (s)	29.5	29.5		29.5	29.5		58.0	58.0		58.0	58.0	58.0
Total Split (%)	31.9%	31.9%		31.9%	31.9%		62.7%	62.7%		62.7%	62.7%	62.7%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.3	3.3		3.3	3.3	3.3
All-Red Time (s)	3.5	3.5		3.5	3.5		2.7	2.7		2.7	2.7	2.7
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lag	Lag		Lag	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Max	Max		Max	Max	Max
Act Effect Green (s)	10.4	10.4		10.4	10.4		52.5	52.5		52.5	52.5	52.5
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.69	0.69		0.69	0.69	0.69
v/c Ratio	0.21	0.41		0.11	0.20		0.30	0.37		0.11	0.47	0.05
Control Delay (s/veh)	35.8	16.6		32.5	15.8		8.1	7.0		5.9	8.4	1.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	35.8	16.6		32.5	15.8		8.1	7.0		5.9	8.4	1.1
LOS	D	B		C	B		A	A		A	A	A
Approach Delay (s/veh)		19.8			20.5			7.3			7.6	
Approach LOS		B			C			A			A	
Queue Length 50th (m)	3.3	4.2		2.6	1.4		8.7	25.3		3.3	37.7	0.0
Queue Length 95th (m)	10.2	18.5		8.5	10.4		19.5	43.3		8.1	63.0	2.4
Internal Link Dist (m)		526.4			354.4			908.4			664.4	
Turn Bay Length (m)	30.0			20.0			135.0			130.0		120.0
Base Capacity (vph)	261	544		375	504		500	1170		607	1188	1059
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	0.09	0.22		0.05	0.10		0.30	0.37		0.11	0.47	0.05
Intersection Summary												
Cycle Length: 92.5												
Actuated Cycle Length: 76.5												
Natural Cycle: 70												
Control Type: Semi Act-Uncoord												
Maximum v/c Ratio: 0.47												

Lanes, Volumes, Timings
7: Stittsville Main Street & West Ridge Drive

Future Total 2046 - PM

10/09/2025

Lane Group	Ø3	Ø7
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	7
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	5.0	5.0
Total Split (s)	5.0	5.0
Total Split (%)	5%	5%
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes
Recall Mode	Max	Max
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		
Approach LOS		
Queue Length 50th (m)		
Queue Length 95th (m)		
Internal Link Dist (m)		
Turn Bay Length (m)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings 7: Stittsville Main Street & West Ridge Drive

Future Total 2046 - PM

10/09/2025

Intersection Signal Delay (s/veh): 9.3

Intersection LOS: A

Intersection Capacity Utilization 63.8%

ICU Level of Service B

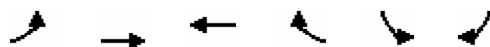
Analysis Period (min) 15

Splits and Phases: 7: Stittsville Main Street & West Ridge Drive



Lanes, Volumes, Timings
10: Fernbank Road & Robert Grant Avenue

Future Total 2046 - PM
10/09/2025



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø9
Lane Configurations							
Traffic Volume (vph)	135	582	679	204	304	131	
Future Volume (vph)	135	582	679	204	304	131	
Satd. Flow (prot)	1712	1802	1802	1502	1679	1488	
Flt Permitted	0.950				0.950		
Satd. Flow (perm)	1712	1802	1802	1502	1679	1488	
Satd. Flow (RTOR)				204		131	
Lane Group Flow (vph)	135	582	679	204	304	131	
Turn Type	Prot	NA	NA	Perm	Prot	Perm	
Protected Phases	5	2	6		4		9
Permitted Phases				6		4	
Detector Phase	5	2	6	6	4	4	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0	3.0
Minimum Split (s)	11.2	24.2	24.2	24.2	30.0	30.0	5.0
Total Split (s)	28.0	35.0	30.0	30.0	40.0	40.0	5.0
Total Split (%)	27.2%	34.0%	29.1%	29.1%	38.8%	38.8%	5%
Yellow Time (s)	4.6	4.6	4.6	4.6	3.3	3.3	2.0
All-Red Time (s)	1.6	1.6	1.6	1.6	2.7	2.7	0.0
Lost Time Adjust (s)	0.0	0.0	-3.0	0.0	0.0	0.0	
Total Lost Time (s)	6.2	6.2	3.2	6.2	6.0	6.0	
Lead/Lag	Lead						Lag
Lead-Lag Optimize?	Yes						Yes
Recall Mode	None	Max	Max	Max	None	None	Max
Act Effect Green (s)	11.7	47.2	27.2	24.1	19.5	19.5	
Actuated g/C Ratio	0.15	0.60	0.34	0.31	0.25	0.25	
v/c Ratio	0.54	0.54	1.10	0.34	0.74	0.28	
Control Delay (s/veh)	40.5	12.8	93.9	5.9	38.9	6.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	40.5	12.8	93.9	5.9	38.9	6.3	
LOS	D	B	F	A	D	A	
Approach Delay (s/veh)		18.0	73.6		29.1		
Approach LOS		B	E		C		
Queue Length 50th (m)	18.7	46.1	~115.2	0.0	41.3	0.0	
Queue Length 95th (m)	39.1	94.9	#225.2	16.1	72.5	12.2	
Internal Link Dist (m)		1200.8	1406.4		1360.2		
Turn Bay Length (m)	105.0			115.0	85.0		
Base Capacity (vph)	479	1314	620	600	733	723	
Starvation Cap Reductn	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	
Reduced v/c Ratio	0.28	0.44	1.10	0.34	0.41	0.18	

Intersection Summary

Cycle Length: 103
Actuated Cycle Length: 79
Natural Cycle: 90
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 1.10

Lanes, Volumes, Timings

10: Fernbank Road & Robert Grant Avenue

Future Total 2046 - PM

10/09/2025

Intersection Signal Delay (s/veh): 44.5

Intersection LOS: D

Intersection Capacity Utilization 76.9%

ICU Level of Service D

Analysis Period (min) 15

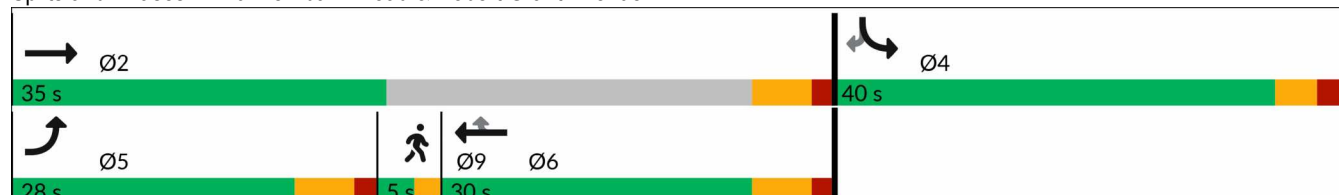
~ Volume exceeds capacity, queue is theoretically infinite.

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: 10: Fernbank Road & Robert Grant Avenue



HCM Unsignalized Intersection Capacity Analysis 8: Stittsville Main Street & Flewellyn Road

Future Total 2046 - AM
10/09/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	140	301	92	43	140	238	39	310	52	148	347	53
Future Volume (vph)	140	301	92	43	140	238	39	310	52	148	347	53
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	140	301	92	43	140	238	39	310	52	148	347	53
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	533	421	401	548								
Volume Left (vph)	140	43	39	148								
Volume Right (vph)	92	238	52	53								
Hadj (s)	0.05	-0.20	0.14	0.12								
Departure Headway (s)	9.6	9.4	9.7	9.7								
Degree Utilization, x	1.42	1.09	1.08	1.47								
Capacity (veh/h)	384	394	378	383								
Control Delay (s/veh)	231.2	104.9	102.1	252.9								
Approach Delay (s/veh)	231.2	104.9	102.1	252.9								
Approach LOS	F	F	F	F								
Intersection Summary												
Delay				182.3								
Level of Service				F								
Intersection Capacity Utilization				124.0%	ICU Level of Service	H						
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis 9: Stittsville Main Street & Fallowfield Road

Future Total 2046 - AM
10/09/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	33	136	17	21	54	84	3	178	42	229	156	17
Future Volume (vph)	33	136	17	21	54	84	3	178	42	229	156	17
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	33	136	17	21	54	84	3	178	42	229	156	17
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	186	159	223	402								
Volume Left (vph)	33	21	3	229								
Volume Right (vph)	17	84	42	17								
Hadj (s)	0.09	-0.19	0.03	0.24								
Departure Headway (s)	6.1	5.9	5.7	5.6								
Degree Utilization, x	0.32	0.26	0.35	0.63								
Capacity (veh/h)	517	534	575	615								
Control Delay (s/veh)	11.9	11.0	11.8	17.5								
Approach Delay (s/veh)	11.9	11.0	11.8	17.5								
Approach LOS	B	B	B	C								
Intersection Summary												
Delay				14.0								
Level of Service				B								
Intersection Capacity Utilization				61.5%	ICU Level of Service	B						
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis 11: Flewellyn Road & Shea Road

Future Total 2046 - AM
10/09/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	483	32	1	203	19	15	234	1	41	202	81
Future Volume (Veh/h)	140	483	32	1	203	19	15	234	1	41	202	81
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	140	483	32	1	203	19	15	234	1	41	202	81
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	222			515			1176	1003	499	1112	1010	213
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	222			515			1176	1003	499	1112	1010	213
tC, single (s)	4.1			4.1			7.1	6.6	6.2	7.1	6.5	6.4
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.1	3.3	3.5	4.0	3.5
p0 queue free %	89			100			31	0	100	0	5	90
cM capacity (veh/h)	1329			1061			22	213	576	0	213	791
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	655	223	250	324								
Volume Left	140	1	15	41								
Volume Right	32	19	1	81								
cSH	1329	1061	140	0								
Volume to Capacity	0.11	0.00	1.79	Err								
Queue Length 95th (m)	2.7	0.0	142.8	Err								
Control Delay (s/veh)	2.7	0.0	437.9	Err								
Lane LOS	A	A	F	F								
Approach Delay (s/veh)	2.7	0.0	437.9	Err								
Approach LOS			F	F								
Intersection Summary												
Average Delay				Err								
Intersection Capacity Utilization				90.6%	ICU Level of Service			E				
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis 8: Stittsville Main Street & Flewellyn Road

Future Total 2046 - PM
10/09/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	98	185	47	36	332	213	91	327	34	256	340	161
Future Volume (vph)	98	185	47	36	332	213	91	327	34	256	340	161
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	98	185	47	36	332	213	91	327	34	256	340	161
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	330	581	452	757								
Volume Left (vph)	98	36	91	256								
Volume Right (vph)	47	213	34	161								
Hadj (s)	0.03	-0.13	0.08	0.03								
Departure Headway (s)	9.6	9.1	9.3	9.3								
Degree Utilization, x	0.88	1.47	1.17	1.95								
Capacity (veh/h)	364	404	390	394								
Control Delay (s/veh)	52.8	250.2	131.0	459.1								
Approach Delay (s/veh)	52.8	250.2	131.0	459.1								
Approach LOS	F	F	F	F								
Intersection Summary												
Delay				268.6								
Level of Service				F								
Intersection Capacity Utilization				131.4%	ICU Level of Service		H					
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis 9: Stittsville Main Street & Fallowfield Road

Future Total 2046 - PM
10/09/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	20	70	8	23	138	179	7	173	27	108	173	36
Future Volume (vph)	20	70	8	23	138	179	7	173	27	108	173	36
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	20	70	8	23	138	179	7	173	27	108	173	36
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	98	340	207	317								
Volume Left (vph)	20	23	7	108								
Volume Right (vph)	8	179	27	36								
Hadj (s)	0.08	-0.26	-0.01	0.07								
Departure Headway (s)	6.1	5.3	5.7	5.6								
Degree Utilization, x	0.17	0.50	0.33	0.49								
Capacity (veh/h)	495	630	567	603								
Control Delay (s/veh)	10.3	13.6	11.5	13.9								
Approach Delay (s/veh)	10.3	13.6	11.5	13.9								
Approach LOS	B	B	B	B								
Intersection Summary												
Delay				12.9								
Level of Service				B								
Intersection Capacity Utilization				62.4%	ICU Level of Service	B						
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis

11: Shea Road & Flewellyn Road

Future Total 2046 - PM

10/09/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	296	9	1	473	74	12	314	3	20	201	125
Future Volume (Veh/h)	80	296	9	1	473	74	12	314	3	20	201	125
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	80	296	9	1	473	74	12	314	3	20	201	125
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	547			305			1198	1010	301	1133	977	510
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	547			305			1198	1010	301	1133	977	510
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 %	92			100			63	0	100	0	13	78
cM capacity (veh/h)	1033			1267			32	223	744	0	232	561
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	385	548	329	346								
Volume Left	80	1	12	20								
Volume Right	9	74	3	125								
cSH	1033	1267	184	0								
Volume to Capacity	0.08	0.00	1.79	Err								
Queue Length 95th (m)	1.9	0.0	177.7	Err								
Control Delay (s/veh)	2.5	0.0	418.3	Err								
Lane LOS	A	A	F	F								
Approach Delay (s/veh)	2.5	0.0	418.3	Err								
Approach LOS			F	F								
Intersection Summary												
Average Delay												
Err												
Intersection Capacity Utilization												
90.9%												
ICU Level of Service												
E												
Analysis Period (min)												
15												

Appendix F 2022 TRANS Regional Model Data



TRANS Regional Model

Version 1.01 - Assigned December, 2024

AM Peak Hour Total Traffic Volume
Stittsville Area

2022 Model - Basecase

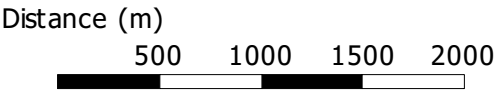
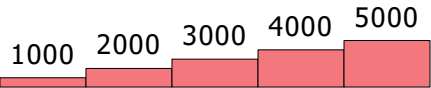
N/A

User Initials: TIMW
Plot Prepared: Aug 2025
EMME Scenario: 22002



Legend

AM Peak Hour Total Traffic Volume



The TRANS model is continuously refined & maintained, and all information is provided in good faith. However, model outputs are provided "as is", and no warranty or guarantee is provided as to the accuracy, reliability or reasonableness of the results. In using this data, you agree to accept any and all risks arising from any incorrect, incomplete, or misleading information.

Recipients are required to use caution and professional judgement in using and interpreting model outputs. In particular, caution should be used when focusing on a geographically limited area (such as a single road or intersection), as the model is primarily designed to simulate regional-scale phenomena and has been calibrated at a regional level.

As general good practice, it is recommended that the user confirm the network coding within the area of interest, and compare base year forecasts against traffic count data to assess the extent to which the model may be over- or under-estimating the travel demand.

TRANS Regional Model

Version 1.01 - Assigned December 2024

AM Network Coding, Lane and Capacity

Screenline 8

2022 Model - Basecase

N/A

User Initials: TW

Plot Prepared: June 2025

EMME Scenario: 22002



Legend

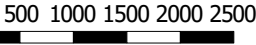
Lane Capacity

- 400 vphpl
- 600 vphpl
- 800 vphpl
- 1000 vphpl
- 1200 vphpl
- 1400 vphpl
- 1500 vphpl
- 1700 vphpl
- 1800 vphpl
- 1900 vphpl
- 2200 vphpl

umber of Lanes Per Direction



Distance (m)



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TRANS Regional Model

Version 1.01 - Assigned December 9, 2024

AM Peak Period Total Capacity of All Transit Lines

Screenline 44 and 56

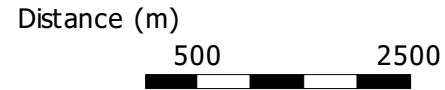
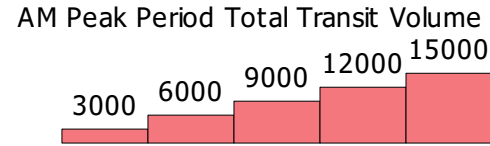
2022 Model - Basecase

N/A

User Initials: TIMW
Plot Prepared: Aug, 2025
EMME Scenario: 22002



Legend



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As general good practice, it is recommended that the user confirm the network coding within the area of interest, and compare base year forecasts against traffic count data to assess the extent to which the model may be over- or under-estimating the travel demand.

TRANS Regional Model

Version 1.01 - Assigned December 9, 2024

AM Peak Period Total Transit Volume

Screenline 44 and 56

2022 Model - Basecase

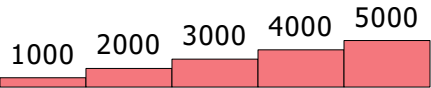
N/A

User Initials: TIMW
Plot Prepared: Aug, 2025
EMME Scenario: 22002



Legend

AM Peak Period Total Transit Volume



Distance (m)



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As general good practice, it is recommended that the user confirm the network coding within the area of interest, and compare base year forecasts against traffic count data to assess the extent to which the model may be over- or under-estimating the travel demand.

TRANS Regional Model

Version 1.01 - Assigned December, 2024

AM Peak Hour Volume Capacity Ratio

Screenline 44 and 56

2022 Model - Basecase

N/A

User Initials: TW

Plot Prepared: Aug, 2025

EMME Scenario: 22002

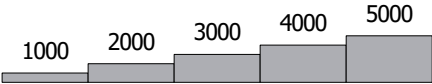


Legend

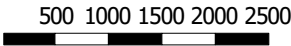
Volume Capacity Ratio

- 0.0 <= V/C < 0.8
- 0.8 <= V/C < 0.9
- 0.9 <= V/C < 1.0
- V/C > 1.0

Auto Volume



Distance (m)



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As general good practice, it is recommended that the user confirm the network coding within the area of interest, and compare base year forecasts against traffic count data to assess the extent to which the model may be over- or under-estimating the travel demand.

TRANS Regional Model

Version 1.01 - Assigned December, 2024

AM Peak Hour Total Traffic Volume

Stittsville Area

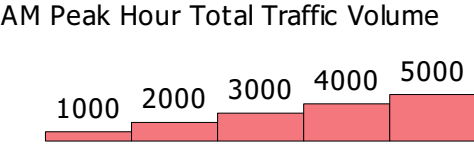
2022 Model - Basecase

N/A

User Initials: TIMW
Plot Prepared: Sept, 2025
EMME Scenario: 22002



Legend



The TRANS model is continuously refined & maintained, and all information is provided in good faith. However, model outputs are provided "as is", and no warranty or guarantee is provided as to the accuracy, reliability or reasonableness of the results. In using this data, you agree to accept any and all risks arising from any incorrect, incomplete, or misleading information.

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TRANS Regional Model

Version 1.01 - Assigned December 9, 2024

AM Peak Period Total Capacity of All Transit Lines
Screenline 44 and 56

2022 Model - Basecase

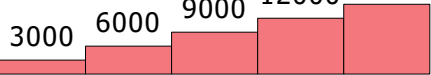
N/A

User Initials: TIMW
Plot Prepared: Aug, 2025
EMME Scenario: 22002



Legend

AM Peak Period Total Transit Volume



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TRANS Regional Model

Version 1.01 - Assigned December 9, 2024

AM Peak Period Total Capacity of All Transit Lines
Screenline 44 and 56

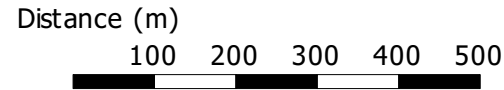
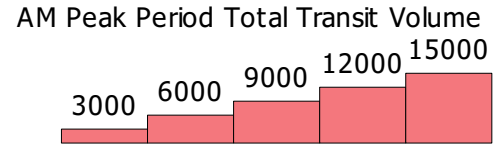
2022 Model - Basecase

N/A

User Initials: TIMW
Plot Prepared: Aug, 2025
EMME Scenario: 22002



Legend



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TRANS Regional Model

Version 1.01 - Assigned December 9, 2024

AM Peak Period Total Transit Volume
Screenline 44 and 56

2022 Model - Basecase

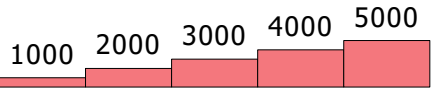
N/A

User Initials: TIMW
Plot Prepared: Aug, 2025
EMME Scenario: 22002



Legend

AM Peak Period Total Transit Volume



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TRANS Regional Model

Version 1.01 - Assigned December 9, 2024

AM Peak Period Total Transit Volume

Screenline 44 and 56

2022 Model - Basecase

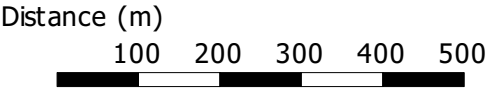
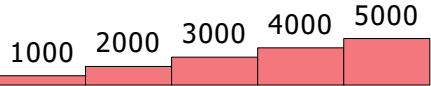
N/A

User Initials: TIMW
Plot Prepared: Aug, 2025
EMME Scenario: 22002



Legend

AM Peak Period Total Transit Volume



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Appendix G 2046 TRANS Regional Model Data



TRANS Regional Model

Version 1.01 - Assigned December, 2024

AM Peak Hour Total Traffic Volume

Stittsville area

2046 Model - Priority Network

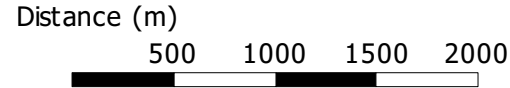
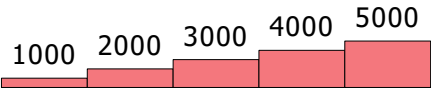
N/A

User Initials: TIMW
Plot Prepared: Aug, 2025
EMME Scenario: 46011



Legend

AM Peak Hour Total Traffic Volume



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TRANS Regional Model

Version 1.01 - Assigned December 2024

AM Network Coding, Lane and Capacity

Screenline 44 and 56

2046 Model - Priority Network

N/A

User Initials: TW

Plot Prepared: Aug 2025

EMME Scenario: 46011



Legend

Lane Capacity

- 400 vphpl
- 600 vphpl
- 800 vphpl
- 1000 vphpl
- 1200 vphpl
- 1400 vphpl
- 1500 vphpl
- 1700 vphpl
- 1800 vphpl
- 1900 vphpl
- 2200 vphpl

umber of Lanes Per Direction



Distance (m)

500 1000 1500 2000 2500



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TRANS Regional Model

Version 1.01 - Assigned December 9, 2024

AM Peak Period Total Capacity of All Transit Lines
Screenline 44 and 56

2046 Model - Priority Network

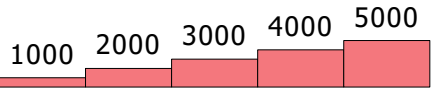
N/A

User Initials: TIMW
Plot Prepared: Aug, 2025
EMME Scenario: 46011



Legend

AM Peak Period Total Transit Volume



Distance (m)



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TRANS Regional Model

Version 1.01 - Assigned December 9, 2024

AM Peak Period Total Transit Volume
Screenline 44 and 56

2046 Model - Priority Network

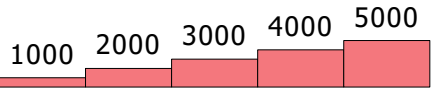
N/A

User Initials: TIMW
Plot Prepared: Aug, 2025
EMME Scenario: 46011



Legend

AM Peak Period Total Transit Volume



Distance (m)



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TRANS Regional Model

Version 1.01 - Assigned December, 2024

AM Peak Hour Volume Capacity Ratio

Screenline 44 and 56

2046 Model - Priority Network

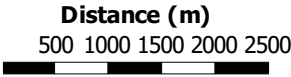
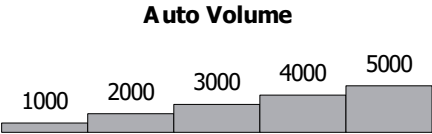
N/A

User Initials: TW
Plot Prepared: Aug, 2025
EMME Scenario: 46011



Legend

- Volume Capacity Ratio
- 0.0 <= V/C < 0.8
 - 0.8 <= V/C < 0.9
 - 0.9 <= V/C < 1.0
 - V/C > 1.0



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TRANS Regional Model

Version 1.01 - Assigned December, 2024

AM Peak Hour Total Traffic Volume
Stittsville area

2046 Model - Priority Network

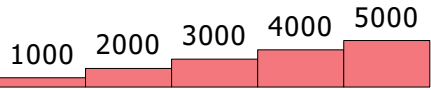
N/A

User Initials: TIMW
Plot Prepared: Sept, 2025
EMME Scenario: 46011



Legend

AM Peak Hour Total Traffic Volume



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TRANS Regional Model

Version 1.01 - Assigned December 9, 2024

AM Peak Period Total Capacity of All Transit Lines
Screenline 44 and 56

2046 Model - Priority Network

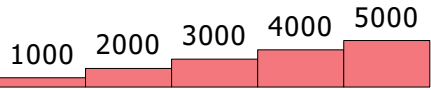
N/A

User Initials: TIMW
Plot Prepared: Aug, 2025
EMME Scenario: 46011



Legend

AM Peak Period Total Transit Volume



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TRANS Regional Model

Version 1.01 - Assigned December 9, 2024

AM Peak Period Total Capacity of All Transit Lines
Screenline 44 and 56

2046 Model - Priority Network

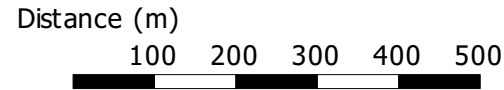
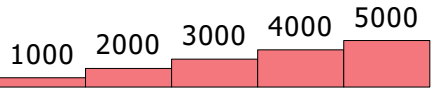
N/A

User Initials: TIMW
Plot Prepared: Aug, 2025
EMME Scenario: 46011



Legend

AM Peak Period Total Transit Volume



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TRANS Regional Model

Version 1.01 - Assigned December 9, 2024

AM Peak Period Total Transit Volume
Screenline 44 and 56

2046 Model - Priority Network

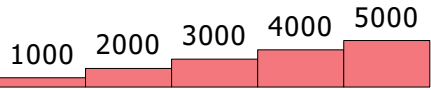
N/A

User Initials: TIMW
Plot Prepared: Aug, 2025
EMME Scenario: 46011



Legend

AM Peak Period Total Transit Volume



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TRANS Regional Model

Version 1.01 - Assigned December 9, 2024

AM Peak Period Total Transit Volume
Screenline 44 and 56

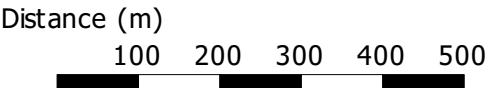
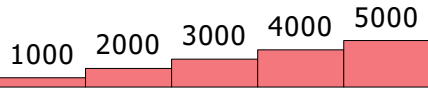
2046 Model - Priority Network
N/A

User Initials: TIMW
Plot Prepared: Aug, 2025
EMME Scenario: 46011



Legend

AM Peak Period Total Transit Volume



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Appendix H Signal Warrants



Signal Warrant Analysis (Justification 7) - Stittsville Main St/Flewellyn Rd

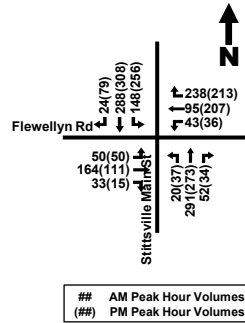
Major Street:	Stittsville Main St
Minor Street:	Flewellyn Rd
Comments: FUTURE BACKGROUND	

Number of Major Road Through Lanes (1-way):	1
Traffic Flow Conditions:	Restricted
Type of Intersection:	4-Leg
Pedestrians Crossing Major Road:	5

Warrant 1 - Minimum Vehicle Volume			
A - All Approaches		Sectional %	Entire %
Warrant Value:	720	107%	107%
Actual Approach Volume:	768		
B - Minor Street (Both Approaches)		Sectional %	
Warrant Value:	170	185%	
Actual Approach Volume:	315		

Warrant 2 - Delay to Cross Traffic			
A - Major Street (Both Approaches)		Sectional %	Entire %
Warrant Value:	720	63%	63%
Actual Approach Volume:	453		
B - Traffic Crossing Major Street		Sectional %	
Warrant Value:	75	168%	
Total Crossing Volume:	126		

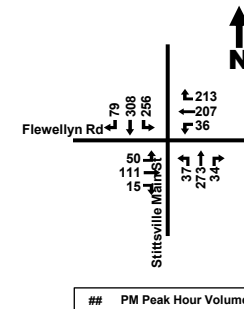
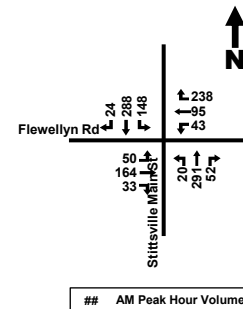
Warrant Criteria:	Single Warrant	Are signals warranted?
Projected peak hour traffic volumes:	120%	NO



Peak Hour	Stittsville Main St Major Street								Flewellyn Rd Minor Street			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM	20	291	52	148	288	24	50	164	33	43	95	238
PM	37	273	34	256	308	79	50	111	15	36	207	213
AM(PM)	20(37)	291(273)	52(34)	148(256)	288(308)	24(79)	50(50)	164(111)	33(15)	43(36)	95(207)	238(213)
Total	57	564	86	404	596	103	100	275	48	79	302	451
(AM+PM)/4	14	141	22	101	149	26	25	69	12	20	76	113

Notes: restricted - operating speed less than 70 km/hr (urban conditions)
free flow - operating speed greater than 70 km/hr (rural conditions)

If channelized right-turn, volume should be zero
For Warrant 2B only, if left-turn is made from a one-way street to another one-way street, volume should be zero



Signal Warrant Analysis (Justification 7) - Stittsville Main St/Flewellyn Rd

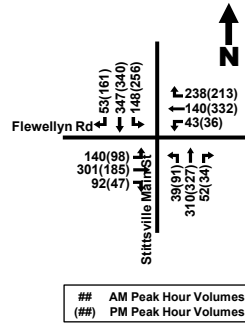
Major Street:	Stittsville Main St
Minor Street:	Flewellyn Rd
Comments: FUTURE TOTAL	

Number of Major Road Through Lanes (1-way):	1
Traffic Flow Conditions:	Restricted
Type of Intersection:	4-Leg
Pedestrians Crossing Major Road:	5

Warrant 1 - Minimum Vehicle Volume			
A - All Approaches		Sectional %	Entire %
Warrant Value:	720	140%	140%
Actual Approach Volume:	1009		
B - Minor Street (Both Approaches)		Sectional %	
Warrant Value:	170	275%	
Actual Approach Volume:	468		

Warrant 2 - Delay to Cross Traffic			
A - Major Street (Both Approaches)		Sectional %	Entire %
Warrant Value:	720	75%	75%
Actual Approach Volume:	541		
B - Traffic Crossing Major Street		Sectional %	
Warrant Value:	75	276%	
Total Crossing Volume:	207		

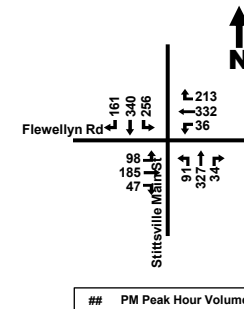
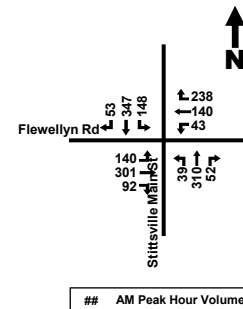
Warrant Criteria:	Single Warrant	Are signals warranted?
Projected peak hour traffic volumes:	120%	YES



Peak Hour	Stittsville Main St Major Street								Flewellyn Rd Minor Street			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM	39	310	52	148	347	53	140	301	92	43	140	238
PM	91	327	34	256	340	161	98	185	47	36	332	213
AM(PM)	39(91)	310(327)	52(34)	148(256)	347(340)	53(161)	140(98)	301(185)	92(47)	43(36)	140(332)	238(213)
Total	130	637	86	404	687	214	238	486	139	79	472	451
(AM+PM)/4	33	159	22	101	172	54	60	122	35	20	118	113

Notes: restricted - operating speed less than 70 km/hr (urban conditions)
free flow - operating speed greater than 70 km/hr (rural conditions)

If channelized right-turn, volume should be zero
For Warrant 2B only, if left-turn is made from a one-way street to another one-way street, volume should be zero



Signal Warrant Analysis (Justification 7) - Shea/Flewellyn Rd

Major Street:	Shea
Minor Street:	Flewellyn Rd
Comments: FUTURE BACKGROUND	

Number of Major Road Through Lanes (1-way):	1
Traffic Flow Conditions:	Free-Flow
Type of Intersection:	4-Leg
Pedestrians Crossing Major Road:	5

Peak Hour	Shea Major Street								Flewellyn Rd Minor Street			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM	15	234	1	41	202	69	104	382	32	1	170	19
PM	12	314	3	20	201	92	61	242	9	1	381	74
AM(PM)	15(12)	234(314)	1(3)	41(20)	202(201)	69(92)	104(61)	382(242)	32(9)	1(1)	170(381)	19(74)
Total	27	548	4	61	403	161	165	624	41	2	551	93
(AM+PM)/4	7	137	1	15	101	40	41	156	10	1	138	23

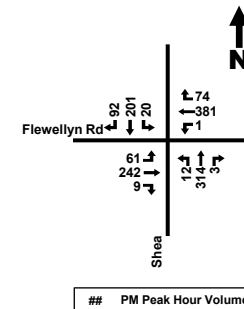
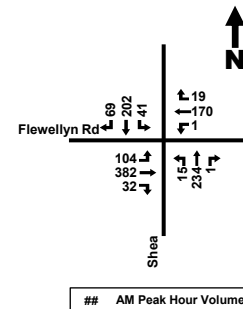
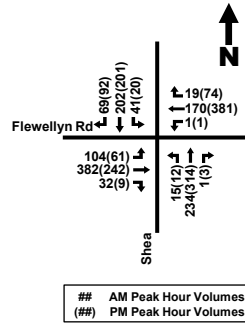
Notes: restricted - operating speed less than 70 km/hr (urban conditions)
free flow - operating speed greater than 70 km/hr (rural conditions)

If channelized right-turn, volume should be zero
For Warrant 2B only, if left-turn is made from a one-way street to another one-way street, volume should be zero

Warrant 1 - Minimum Vehicle Volume			
A - All Approaches		Sectional %	Entire %
Warrant Value:	480	140%	140%
Actual Approach Volume:	670		
B - Minor Street (Both Approaches)		Sectional %	
Warrant Value:	120	308%	
Actual Approach Volume:	369		

Warrant 2 - Delay to Cross Traffic			
A - Major Street (Both Approaches)		Sectional %	Entire %
Warrant Value:	480	63%	63%
Actual Approach Volume:	301		
B - Traffic Crossing Major Street		Sectional %	
Warrant Value:	50	406%	
Total Crossing Volume:	203		

Warrant Criteria:	Single Warrant	Are signals warranted?
Projected peak hour traffic volumes:	120%	YES



Signal Warrant Analysis (Justification 7) - Shea/Flewellyn Rd

Major Street:	Shea
Minor Street:	Flewellyn Rd
Comments: FUTURE TOTAL	

Number of Major Road Through Lanes (1-way):	1
Traffic Flow Conditions:	Free-Flow
Type of Intersection:	4-Leg
Pedestrians Crossing Major Road:	5

Peak Hour	Shea							Flewellyn Rd				
	Major Street							Minor Street				
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM	15	234	1	41	202	81	140	483	32	1	203	19
PM	12	314	3	20	201	125	80	296	9	1	473	74
AM(PM)	15(12)	234(314)	1(3)	41(20)	202(201)	81(125)	140(80)	483(296)	32(9)	1(1)	203(473)	19(74)
Total	27	548	4	61	403	206	220	779	41	2	676	93
(AM+PM)/4	7	137	1	15	101	52	55	195	10	1	169	23

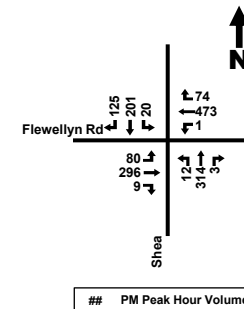
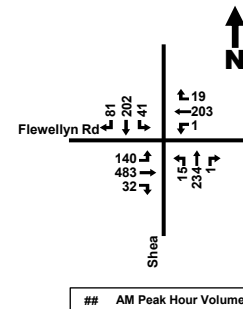
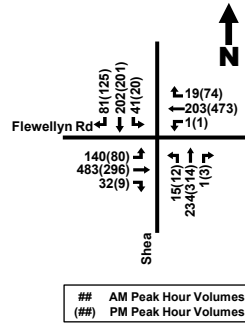
Notes: restricted - operating speed less than 70 km/hr (urban conditions)
free flow - operating speed greater than 70 km/hr (rural conditions)

If channelized right-turn, volume should be zero
For Warrant 2B only, if left-turn is made from a one-way street to another one-way street, volume should be zero

Warrant 1 - Minimum Vehicle Volume			
A - All Approaches		Sectional %	Entire %
Warrant Value:	480	160%	160%
Actual Approach Volume:	766		
B - Minor Street (Both Approaches)		Sectional %	
Warrant Value:	120	378%	
Actual Approach Volume:	453		

Warrant 2 - Delay to Cross Traffic			
A - Major Street (Both Approaches)		Sectional %	Entire %
Warrant Value:	480	65%	65%
Actual Approach Volume:	313		
B - Traffic Crossing Major Street		Sectional %	
Warrant Value:	50	512%	
Total Crossing Volume:	256		

Warrant Criteria: Single Warrant Are signals warranted?
Projected peak hour traffic volumes: 120% YES





Stantec is a global leader in sustainable engineering, architecture, and environmental consulting. The diverse perspectives of our partners and interested parties drive us to think beyond what's previously been done on critical issues like climate change, digital transformation, and future-proofing our cities and infrastructure. We innovate at the intersection of community, creativity, and client relationships to advance communities everywhere, so that together we can redefine what's possible.

