CEPEO

Leitrim Elementary School – 3955 Kelly Farm Drive

Transportation Impact Assessment
Scoping Report

February 12, 2025

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Project No.: CA0039813.4669
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WSP

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1 Screening

This Transportation Impact Assessment (TIA) has been prepared to support the Site Plan Control application for the development to be located at 3955 Kelly Farm Drive. The TIA follows the City of Ottawa (the City) TIA Guidelines (2017). Revisions to the TIA Guidelines (May 2023) have been made to comply with Bill 109 and the update has been effective as of June 14, 2023. The updated TIA process includes four steps:

1. Screening
2. Scoping
3. Analysis
4. TIA Submission

The Screening Step determines the need to continue with a TIA Study. The development is assessed against three triggers: trip generation, location, and safety to identify the next step of the study. If one or more of the triggers is satisfied, the Scoping Step must be completed. If none of the triggers are satisfied, the TIA is deemed complete. If one or more triggers are satisfied, specific TIA components are required to be carried out depending on the combination of triggers (**Table 1-1**) that have been satisfied.

The proposed development at 3955 Kelly Farm Drive **satisfies the Trip Generation trigger** indicating that, as part of Steps Two through Four of the TIA process, the Design Review and Network Impact components should be completed. For reference, the completed Screening Form is provided in **Appendix A**.

Table 1-1: City of Ottawa TIA Screening Triggers

	TIA Triggers Satisfied		
Next Step of the TIA Process	**Trip Generation**	**Location**	**Safety**
Design Review and Network Impact	**Yes** ☑	**No** ☒	**No** ☒

2 Scoping

2.1 Description of Proposed Development

Conseil des écoles publiques de l'Est de l'Ontario (CEPEO) is planning to construct a new Junior Kindergarten to Grade 6 (JK-6) elementary school and daycare for preschoolers, toddlers, and infants (referred to herein as 'site' or 'proposed development') located within the suburban neighbourhood of Findlay Creek in the Leitrim District. The municipal address for the proposed development's property is 3955 Kelly Farm Drive, Ottawa, ON, and situated at the south-east corner of the intersection of Kelly Farm Drive and Barrett Farm Drive.

The proposed development is anticipated to be completed in a single phase, with the expected build-out year of 2027. The draft site plan (dated February 6th, 2025) by Architecture49 is provided in **Appendix B**.

The site is currently an undeveloped greenfield with a site area of approximately 20,729.05 m² (2.07 ha). The site is currently zoned as a Minor Institutional Zone, Subzone A (I1A) and Residential Third Density Zone, Subzone Z (R3Z) based on the City of Ottawa Zoning By-law No. 2008-250 (Consolidation November 24, 2023). As per the I1A zone, a school and daycare are permitted land uses. The site is bounded by single family and townhomes to the north, east, and south, while the area to the west of the site is currently being developed for residential uses.

The proposed development will include a single two-storey building with two wings: one single-storey and one two-storey. The total building area is 3,415.5 m² with a total gross floor area (GFA) of 4,537.1 m² that includes 15 classrooms (three for kindergarten) and a daycare GFA of 413.2 m². The daycare will be operated separately from the school. A total of 12 future portables may be implemented as early as 2029 or 2030. Any future school additions will be beyond the scope of this study and not part of the respective Site Plan Control application. A summary of the proposed development's occupant load is provided in **Table 2-1**.

Table 2-1: Proposed Elementary School and Daycare – Full Occupant Load Summary

User		Build Out (2027)	Build Out + 5 Years[1] (2032)	Total (2032)
Staff	School[2] (JK-6)	23	+12	35
	Daycare	9	-	9
Children	School[3] (JK-6)	354 (78 kindergarten, 276 Grades 1-6)	+276 (all Grades 1-6)	630 (78 kindergarten, 552 Grades 1-6)
	Daycare	49	-	49

[1]Includes addition of 12 portables

[2]School staff includes teachers/instructors, as well as general staff, custodian, principal, secretary, etc.

[3]Kindergarten classrooms can accommodate 26 students per classroom and Grades 1 to 6 classrooms/portables can accommodate 23 students per classroom/portable

It is noted that the occupant load for the 2027 build-out year and the 2032 horizon year, as shown in **Table 2-1**, will not be at full capacity based on forecasts provided by the school board. It is anticipated that the school will serve 269 JK-6 students (76% of full capacity) and 440 JK-6 students (70% of full capacity) in 2027 and 2032, respectively. For analysis purposes, a conservative approach was taken by assuming that the school would be operating at 100% capacity for both horizon years to evaluate the worst-case scenario.

The site property will include the provision of 51 parking spaces including three accessible spaces, as well as 50 bicycle parking spaces. There will be one new two-way vehicle access to the parking lot/pick-up and drop-off area from Barrett Farm Drive at the north-east corner of the site and one new service access with a fenced gate from Kelly Farm Drive. The pick-up/drop-off area is intended to be used by parents of both the school and daycare children. The elementary school will be served by seven school buses and an in-boulevard school bus lay-by area will be provided on the north (one space) and west sides (six spaces) of the site. Additional in-boulevard lay-by areas on the north and west sides of the site that are separate from the school bus lay-by area are intended to be used as other pick-up/drop-off spaces for the daycare and student transportation, respectively. There will be two lay-by spaces for the daycare and three Minivan spaces for student transportation.

Figure 2-1 illustrates the study area context, including the road network and roadway classifications near the proposed development.

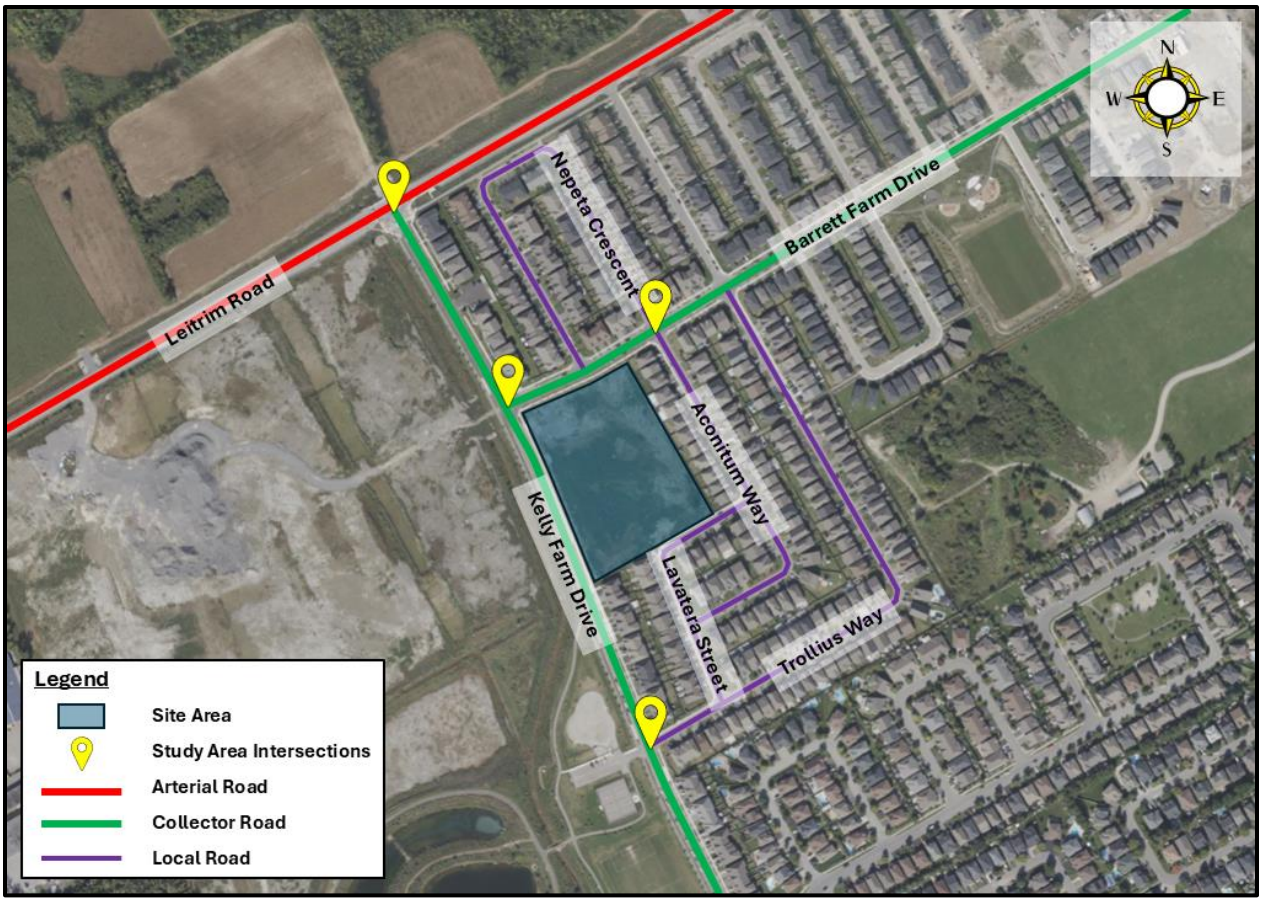


Figure 2-1: Study Area Context (Source: Bing Maps)

2.2 Existing Conditions

2.2.1 Roadways

The TIA will consider the impacts on seven (7) existing City of Ottawa roadways: Leitrim Road, Kelly Farm Drive, Barrett Farm Drive, Trollius Way, Nepeta Crescent, Aconitum Way, and Lavatera Street. All roadways, except for Leitrim Road, have been newly constructed within the past five years. Road classifications for City of Ottawa roadways are defined in Schedule C16 – Road Classification and Rights-of-Way Protection as part of the City of Ottawa's New Official Plan (2022). Descriptions of the existing road classification, geometry, and operational constraints are noted below.

Leitrim Road is classified as an Arterial Road with a right-of-way (ROW) protection of 35.1 m to 40 m between 200 m west of Kelly Farm Drive and Bank Street. It is noted that the ROW protection varies and is subject to unequal widening requirements of the Leitrim Road Realignment and Widening ESR (2018). An additional 5 m on the Greenbelt side may be required to construct a rural cross-section. Leitrim Road runs in an east-west direction and has a posted speed limit of 80 km/h within the study area. The roadway is configured with one travel lane in each direction and has a painted

centreline. On-street parking is not permitted, and the road is part of the designated full load truck route network and OC Transpo transit network. A multi-use pathway (MUP) runs parallel to the roadway within the study area, providing access for pedestrians and cyclists on the south side of Leitrim Road.

Kelly Farm Drive is classified as a Collector Road with a ROW protection of 26 m and will connect to Earl Armstrong Road as part of a future extension. It runs in a north-south direction with a posted speed limit of 50 km/h. The roadway is configured with one travel lane in each direction and has no painted centreline. On-street parking is permitted on both sides, and the road is part of the OC Transpo transit network. A MUP is provided on the west side of the road, and a sidewalk is provided on the east side of the road within the study area, supporting pedestrian and cyclist access.

Barrett Farm Drive is identified as a Main Spine Road based on the Leitrim Community Design Plan further described in **Section 2.3.1**, and has been designed to the City's former Collector Street standard (i.e., 11 m curb-to-curb width, etc.) despite it currently being shown as a Local Road in geoOttawa. Therefore, Barrett Farm Drive is assumed to be classified as a Collector Road. It runs in an east-west direction with a posted speed limit of 40 km/h. The roadway is configured with one travel lane in each direction and has no painted centreline. On-street parking is permitted on both sides, and the road includes sidewalks on both sides, but there are no cycling facilities.

Trollius Way is classified as a Local Road. It runs in a north-south direction towards Barrett Farm Drive and in an east-west direction towards Kelly Farm Drive, with a posted speed limit of 40 km/h. The road is configured with one travel lane in each direction and has no painted centreline. On-street parking is permitted on both sides, and the road includes a sidewalk on one side near intersections, but there are no cycling facilities.

Nepeta Crescent is classified as a Local Road. It generally runs in a north-south direction and does not have a posted limit. However, a 40 km/h gateway speed limit sign is provided at entry to Barrett Farm Drive, which Nepeta Crescent is accessed from. The roadway is configured with one travel lane in each direction and has no painted centreline. On-street parking is permitted on both sides and there are no sidewalks or cycling facilities.

Aconitum Way is classified as a Local Road. It generally runs in a north-south direction and does not have a posted limit. However, a 40 km/h gateway speed limit sign is provided at entry to Barrett Farm Drive, which Aconitum Way can be accessed from. The roadway is configured with one travel lane in each direction and has no painted centreline. On-street parking is permitted on both sides, and the road includes a sidewalk on one side between Barrett Farm Drive and Lavatera Street, but there are no cycling facilities.

Lavatera Street is classified as a Local Road. It generally runs in a north-south direction but runs in an east-west direction adjacent to the site's southern boundary and does not have a posted limit. However, a 40 km/h gateway speed limit sign is provided at entry to Trollius Way, which Lavatera Street can be accessed from. The roadway is configured with one travel lane in each direction and has no painted centreline. On-street parking is permitted on both sides, and the road includes a sidewalk on one side

(west/north sides), but there are no cycling facilities. A pedestrian connection is proposed between the site and Lavatera Street to encourage walking trips between the school and adjacent residential area south-east of the site.

2.2.2 Intersections

In accordance with the City of Ottawa TIA Guidelines (2017) and based on correspondence with City staff, this TIA will consider four (4) intersections within 600 m of the proposed development that are on walking and cycling access routes, and arterial intersections impacted by auto demands from the proposed development (typically within 1 km in suburban conditions), as identified and described in **Table 2-2**.

Table 2-2: Study Area Intersections

Intersection Description	Lane Configuration (Source: Bing Maps)	Site Visit Photo (November 2024)
Leitrim Road / **Kelly Farm Drive** is a signalized T-intersection with no turning restrictions. The north leg of the intersection has an unpaved entrance with a continuous sidewalk and gate that appears to be used for agricultural purposes based on its zoning and being part of the Greenbelt. – **East Approach:** One left-turn lane with a storage length of approximately 125 m and one through lane – **South Approach:** One left-turn lane with a storage length of approximately 25 m and one right-turn lane – **West Approach:** One through lane and one right-turn lane with a storage length of approximately 100 m – **Pedestrians/Cyclists:** o The east approach has a curbside concrete sidewalk on the south side of the road. The south approach has a grass boulevard-separated concrete sidewalk on the east side of the road. The west approach has no sidewalks. o The east approach has a paved shoulder on the north side of the road and a grass boulevard-separated bi-directional MUP on the south side of the road. The south approach has a grass boulevard-separated bi-directional MUP on the west side of the road and an east-west bike signal. Paved shoulders are provided on both sides of the road for the west approach. There are protected intersection design elements such as a crossride setback and protected corner. o Crosswalks are provided at all approaches (zebra-striped pavement markings at the south approach) and a crossride is provided across the south approach. Depressed curbs and attention Tactile Walking Surface Indicators (TWSIs) are provided at all corners and between sidewalks and MUPs.		
Kelly Farm Drive / **Barrett Farm Drive** is an unsignalized intersection with two-way stop-control for the east and west approaches and free-flow conditions for the north and south approaches. There are no turning restrictions. – **North Approach:** One shared left-turn/through/right-turn lane – **East Approach:** One shared left-turn/through/right-turn lane – **South Approach:** One shared left-turn/through/right-turn lane – **West Approach:** One shared left-turn/through/right-turn lane. *Note: This intersection leg is under construction at the time of this report and is currently used by construction vehicles for the development of a residential subdivision.* – **Pedestrians/Cyclists:** o The north approach has a grass boulevard-separated concrete sidewalk on the east side of the road and a bi-directional MUP on the west side of the road. The east approach has a grass/asphalt boulevard-separated concrete sidewalk on the north side of the road and grass boulevard-separated concrete sidewalk on the south side of the road. The south approach has a curbside concrete sidewalk on the east side of the road and a bi-directional MUP on the west side of the road. The west approach currently has no sidewalks. o No crosswalks are provided at all approaches. Depressed curbs and attention TWSIs are provided at all corners.		

Intersection Description	Lane Configuration (Source: Bing Maps)	Site Visit Photo (November 2024)
Kelly Farm Drive / **Trollius Way** is an unsignalized intersection with stop-control for the east approach only and free-flow conditions for the north and south approaches. The west approach is a parking lot for the Diamond Jubilee Park (North) with 33 parking spaces. There are no turning restrictions. – **North Approach:** One shared left-turn/through/right-turn lane – **East Approach:** One shared left-turn/through/right-turn lane – **South Approach:** One shared left-turn/through/right-turn lane – **West Approach:** One shared left-turn/through/right-turn lane – **Pedestrians/Cyclists:** o The north and south approaches have a grass boulevard-separated concrete sidewalk on the east side of the road and a bi-directional MUP on the west side of the road. The east and west approaches have a curbside concrete sidewalk on the north side of the road only. o No crosswalks are provided at all approaches. Depressed curbs are provided at all corners and attention TWSIs are provided at the north-east and south-east corners.		
Barrett Farm Drive / **Nepeta Crescent-Aconitum Way** is an unsignalized intersection with two-way stop-control for the north and south approaches and free-flow conditions for the east and west approaches. There are no turning restrictions. – **North Approach:** One shared left-turn/through/right-turn lane – **East Approach:** One shared left-turn/through/right-turn lane – **South Approach:** One shared left-turn/through/right-turn lane – **West Approach:** One shared left-turn/through/right-turn lane – **Pedestrians/Cyclists:** o The north approach has no sidewalks. The east and west approaches have a grass boulevard-separated concrete sidewalk on both sides of the road. The south approach has a curbside sidewalk on the west side of the road. o No crosswalks are provided at all approaches. Depressed curbs and attention TWSIs are provided at all corners.		

2.2.3 Driveways

Driveways within 200 m of the proposed site accesses on the roads bordering the site (i.e., Kelly Farm Drive and Barrett Farm Drive) have been identified and categorized as major and minor driveways, as shown in **Figure 2-2**.

Figure 2-2: Existing Driveways within 200 m of the Site Accesses (Source: Google Earth)

The only major driveway is located along Kelly Farm Drive, north of the site. This driveway provides access to a parking lot for the Findlay Creek Village Sales Centre and Model Homes with a capacity of approximately 20 parking spaces.

The minor driveways provide access to individual townhouse garages or driveways. There are a total of 41 residential driveways, which are distributed along the east side of Kelly Farm Drive and both sides of Barrett Farm Drive. Minor driveways are generally single-lane and facilitate low-volume traffic, used for private passenger vehicles. They represent typical residential patterns and have minimal direct impact on overall traffic flow, except during peak hours when multiple vehicles may enter or exit simultaneously.

2.2.4 Pedestrian and Cycling Facilities

The study area features a network of pedestrian and cycling infrastructure, including sidewalks, MUPs, and cycling-friendly local roads. Adjacent to the proposed development, a 3 m wide paved bi-directional MUP runs along the west side of Kelly Farm Drive, supporting both pedestrian and cycling access. These pathways serve as vital connectors to nearby residential areas and integrate seamlessly with the local road network.

Every roadway within the study area offers some level of pedestrian and/or cycling infrastructure, either on one or both sides, except for Nepeta Crescent. Kelly Farm Drive features a MUP on one side and a sidewalk on the other side, and Barrett Farm Drive feature sidewalks on both sides of the road, ensuring safe pedestrian access. Local roads such as Trollius Way and Aconitum Way include sidewalks on at least one side, prioritizing pedestrian movement within the neighborhood. The MUPs in the area provide direct connections between residential local roads and arterial roads, supporting active transportation modes.

Gaps in facilities leading to the proposed development include the absence of crosswalks at most intersections. Overall, the pedestrian and cycling facilities within Findlay Creek provide a good connection internally, but links to the wider area are minimal. For example, while there is a Cross-town Bikeway adjacent to the LRT corridor west of the site, no direct connection exists between this bikeway and Findlay Creek that would be comfortable enough for the average cyclist to use, limiting broader accessibility for cyclists and pedestrians.

The existing pedestrian and cycling facilities providing connections to the proposed development are shown in **Figure 2-3**.

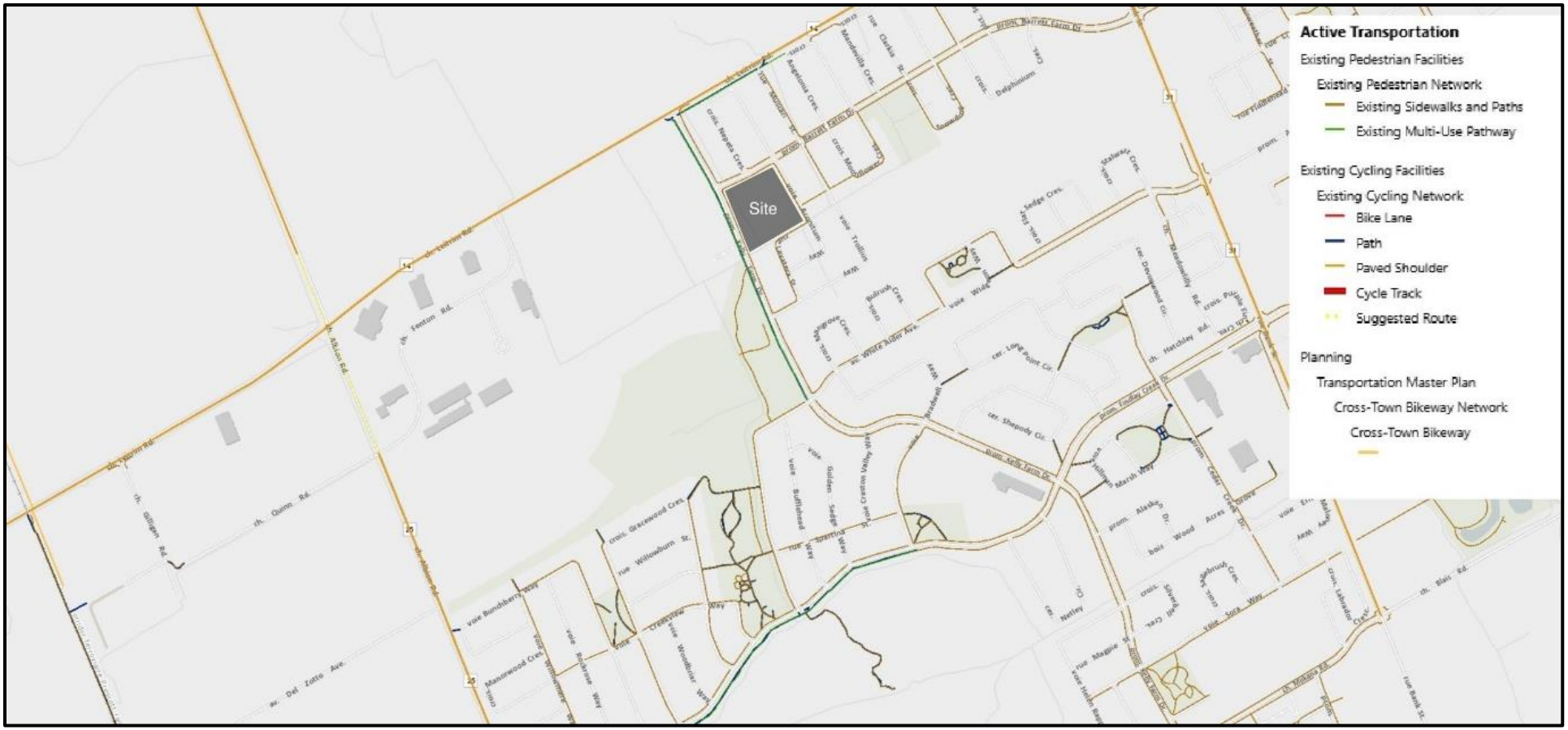


Figure 2-3: Study Area Existing Pedestrian and Cycling Infrastructure (Source: geoOttawa)

2.2.5 Transit Facilities

The study area is served by OC Transpo Route 294, which is the only transit route providing direct access to the proposed development along Kelly Farm Drive. The closest bus stops to the proposed development are #0402 (northbound) and #0403 (southbound), as shown in **Figure 2-4**, which are located at the intersection of Kelly Farm Drive and Barrett Farm Drive and are within a short walking distance of the site (within 50 m). These stops exclusively serve Route 294, making it the primary transit option for the development. All other transit routes in the study area have their closest stops located approximately 1 km or more away from the proposed development, requiring a longer walking distance for access. The newly reopened O-Train Line 2 (Trillium Line) enhances public transportation accessibility for the study area. The closest station, Leitrim Station, is located approximately 2 km west of the proposed development. This station connects the site to Ottawa's integrated transit network, offering access to Downtown Ottawa.

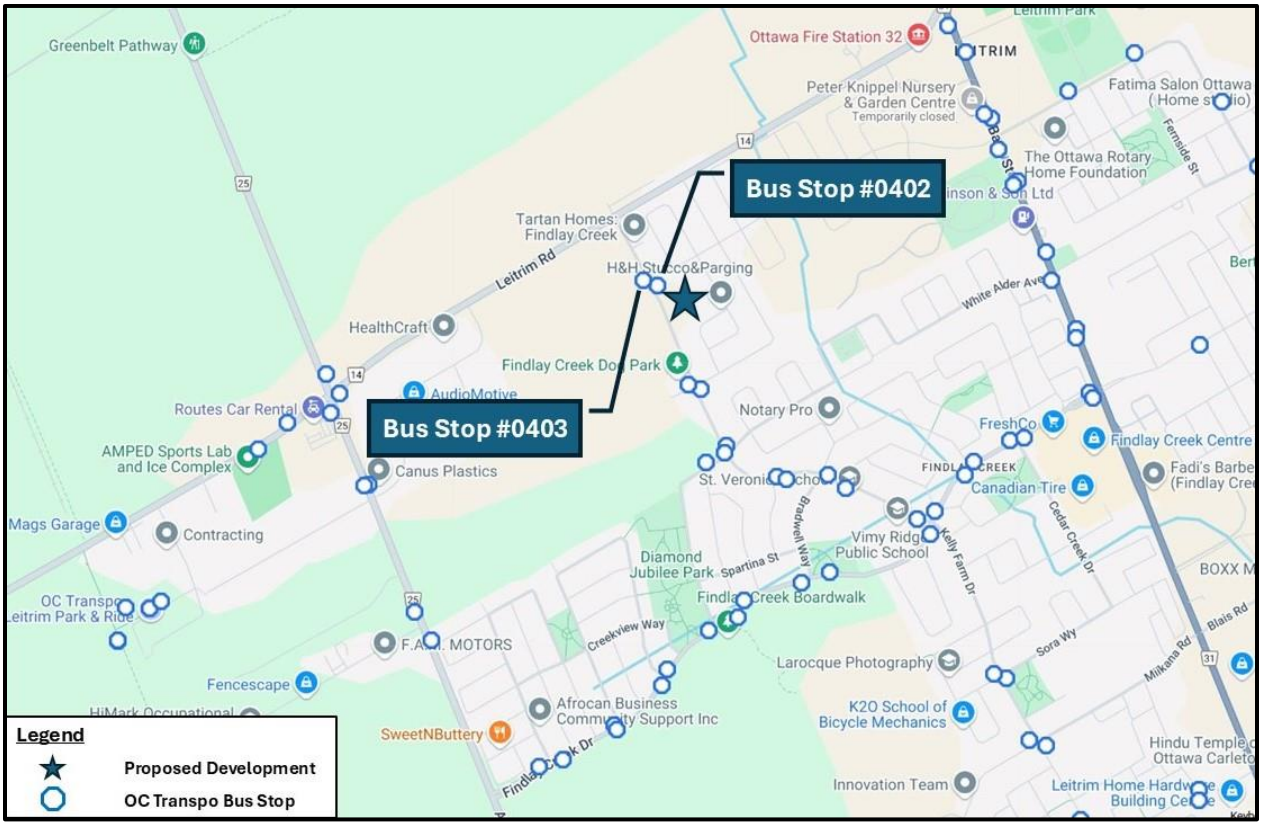


Figure 2-4: Study Area OC Transpo Bus Stops (Source: OC Transpo)

Below is a detailed description of study area transit routes as of January 2025, including their origins, destinations, and services:

- **Route 93 (Greenboro / Hurdman Station – Leitrim Station)** is a **Local route** which provides custom routing to local destinations. Route 93 travels in a north-south direction between Greenboro Station (O-Train Line 2) or Hurdman Station and Leitrim Station (O-Train Line 2), which mainly travels along Bank Street and Findlay Creek Drive through Findlay Creek. Hurdman Station is the terminus during weekday peak periods. All-day service is provided seven day per week. There is a 15-minute frequency during the AM peak period towards Hurman Station and PM peak period towards Leitrim Station. Otherwise, 30-minute frequency is provided, including on weekends.
- **Route 99 (Barrhaven Centre – Greenboro / Hurdman Station)** is a **Rapid route** which provide quick, station-to-station bus service along the Transitway or highway and operates seven days per week. Route 99 travels in a predominantly north-south direction between Barrhaven Centre and Greenboro or Hurdman Station, which includes a stop at Leitrim Station. Hurdman Station is the terminus during weekday peak periods. There is a 15-minute frequency during the AM peak period towards Hurman Station and PM peak period towards Barrhaven Centre. Otherwise, 30-minute frequency is provided, including on weekends.
- **Route 294 (Hurdman Station – Findlay Creek)** is a **Connexion route** which provides a quick and convenient connection between local neighbourhoods and O-Train Line 1. Connexion routes operate during weekday (Monday to Friday) AM and PM peak periods only. Route 294 travels in a north-south direction between Hurdman Station (O-Train Line 1) and Findlay Creek, which mainly travels along Kelly Farm Drive through Findlay Creek. It travels towards Hurdman Station during the AM peak period and towards Findlay Creek during the PM peak period with a 30-minute frequency.
- **Route 299 (Hurdman Station – Manotick)** is a **Connexion route** which provides a quick and convenient connection between local neighbourhoods and O-Train Line 1 and operates during weekday (Monday to Friday) AM and PM peak periods only. Route 299 travels in a north-south direction between Hurdman Station and Manotick, which includes a stop at Leitrim Station. It travels towards Hurdman Station during the AM peak period and towards Manotick during the PM peak period with only two buses to/from Manotick (one hour apart).

In addition, OC Transpo provides limited service to high schools and middle schools on 600s series routes as follows:

- **Route 693 (Blossom Park – St. Francis Xavier H.S)** is a **School route** with custom service from residential areas to schools with no service provided on school holidays. Route 693 travels predominantly in an east-west direction between Blossom Park and St. Francis Xavier Catholic High School and travels along Leitrim Road west of Albion Road, but bypasses Leitrim Station. The closest bus stop to the proposed development is located at the intersection of Leitrim Road and Albion Road. It travels towards St. Franics Xavier High School during the AM peak period and towards Blossom Park during the PM peak period with limited inbound and outbound trips around school bell times.

- **Route 699 (Pierre-de-Blois – Findlay Creek)** is a **School route** with custom service from residential areas to schools with no service provided on school holidays. Route 699 travels predominantly in an east-west direction between Pierre-de-Blois Public High School and Findlay Creek, which mainly travels along Bank Street and Findlay Creek Drive through Findlay Creek. It travels towards Pierre-de-Blois High School during the AM peak period and towards Findlay Creek during the PM peak period with limited inbound and outbound trips around school bell times.

It is noted that OC Transpo's "New Ways to Bus" is a new bus network with over 100 routes that is planned to launch in April 2025 and will implement changes to existing routes. The new bus network will focus on frequency, local service, and connections to key destinations. This is a result of a decrease in ridership levels post-pandemic and the expansion of the O-Train system. The notable changes relative to the proposed development are as follows:

- **Route 294** will be replaced by **Route 94,** which is a **Local route,** and the route will be shortened to travel between Leitrim Station and Dun Skipper Drive in Findlay Creek. Route 94 will operate during weekday (Monday to Friday) AM and PM peak periods only. It will travel towards Leitrim Station during the AM peak period and towards Findlay Creek during the PM peak period.
- **Route 93** will be changed to travel between Rotary Way in Findlay Creek and Leitrim Station only.
- **Route 99** will be changed to travel between Barrhaven Centre and Limebank Station (O-Train Line 2). It will also be changed to a Local route service type providing all-day service seven days per week.
- **Route 299** will be changed to travel between Manotick and Limebank Station.

Figure 2-5 highlights all OC Transpo bus routes on roadways near the proposed development.

Figure 2-5: Study Area OC Transpo Bus Routes (Source: OC Transpo)

OC Transpo bus stop #0402 is located at the south-east corner of the intersection of Kelly Farm Drive and Barrett Farm Drive, as shown in **Figure 2-6**, which is adjacent to the site. The existing curb bulb-out on the west side of the site will form part of the proposed school bus lay-by area. In order to accommodate OC Transpo bus stop #0402 and the school bus lay-by area, OC Transpo recommended that the curb bulb-out be extended at the south-east corner of the intersection of Kelly Farm Drive and Barrett Farm Drive to provide a 15 m landing pad for the bus stop and the remaining space to be used for the school bus lay-by area.

Figure 2-6: OC Transpo Bus Stop #0402 (Source: WSP)

2.2.6 Area Traffic Management Measures

The proposed development is within a developing suburban neighbourhood with temporary traffic calming measures. The existing traffic management measures identified within the study area include:

- Community entrance signage on the west side of Kelly Farm Drive between Leitrim Road and Barrett Farm Drive (see **Figure 2-7**)
- 50 km/h speed limit pavement marking on Kelly Farm Drive between Leitrim Road and Barrett Farm Drive (see **Figure 2-8**)
- Speed display board on the west side of Kelly Farm Drive near Findlay Creek Dog Park (see **Figure 2-9**)
- 40 km/h gateway speed limit signs at entry/exit on Barrett Farm Drive and Trollius Way from/to Kelly Farm Drive (see **Figure 2-10** and **Figure 2-14**)
- Curb bulb-outs on the west side of the site (see **Figure 2-12** and **Figure 2-13**)
- 40 km/h speed limit pavement marking on Trollius Way between Kelly Farm Drive and Lavatera Street (see **Figure 2-14**)

The Pedestrians Ahead sign (Wc-7) on Aconitum Way (as shown in **Figure 2-11**) is a warning sign more so to provide motorists with advance warning that there is a chance of pedestrians being in the area.

Figure 2-7: Traffic Calmed Neighbourhood Sign – Kelly Farm Drive Southbound (Source: WSP)

Figure 2-8: 50 km/h Pavement Marking – Kelly Farm Drive Southbound (Source: WSP)

Figure 2-9: Speed Display Board – Kelly Farm Drive Southbound (Source: WSP)

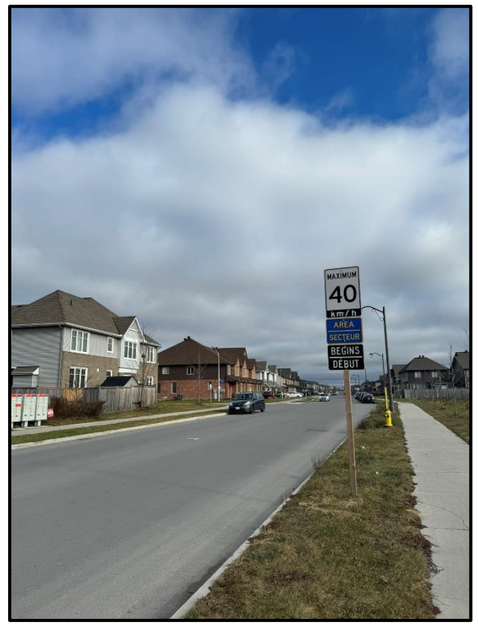


Figure 2-10: 40 km/h Gateway Speed Limit Sign – Barrett Farm Drive Eastbound (Source: WSP)

Figure 2-11: Pedestrians Ahead Warning Sign – Aconitum Way Southbound (Source: WSP)

Figure 2-12: Curb Bulb-out – South-West Corner of Site (Source: WSP)

Figure 2-13: Curb Bulb-out – North-West Corner of Site (Source: WSP)

Figure 2-14: 40 km/h Gateway Speed Limit – Trollius Way Eastbound (Source: WSP)

2.2.7 Peak Hour Travel Demands

The TRANS Committee was established to coordinate transportation planning efforts among various planning agencies within the National Capital Region. The most recent Origin-Destination (O-D) Household Travel survey was completed by TRANS in Fall 2022. A Preview Report has been released for 2022 regional travel patterns; however, a detailed Travel Analysis Report (particularly for each district or Traffic Assessment Zone) was in preparation and not available at the time of this TIA report. Overall, the Preview Report indicated that auto driver and auto passenger mode shares are generally similar compared to the previous (2011) survey, while there has been a shift amongst the non-auto shares from public transit to active transportation (bicycle, micro-mobility and walking). Specifically in Ottawa, there was a reduction in the public transit, which is consistent with increases in remote working and schooling due to the COVID-19 pandemic, and school bus mode shares.

Due to the detailed 2022 O-D survey being unavailable, the next latest survey was used for the purposes of this report and completed by TRANS in the Fall of 2011. The proposed development is in South Gloucester / Leitrim, corresponding to TRANS District 400. The 2011 O-D survey provides the mode share for travel from, to, and within each district. The TRANS mode shares for the South Gloucester / Leitrim District are summarized in **Table 2-3**, and the complete TRANS O-D survey district results, including a map of the district area, are provided in **Appendix C**.

Table 2-3: Peak Period Trips by Travel Mode – South Gloucester / Leitrim District (Source: 2011 TRANS O-D Survey Report)

Travel Mode	AM Peak Period (06:30 to 09:00)			PM Peak Period (3:30 to 6:00)		
	From District	To District	Within District	From District	To District	Within District
Auto Driver	64%	68%	42%	70%	67%	44%
Auto Passenger	17%	7%	31%	23%	15%	25%
Transit	12%	3%	2%	3%	11%	1%
Bicycle	1%	1%	0%	0%	1%	0%
Walk	0%	0%	17%	0%	0%	25%
Other[1]	6%	21%	8%	3%	5%	4%

Travel Mode	AM Peak Period (06:30 to 09:00)			PM Peak Period (3:30 to 6:00)		
	From District	To District	Within District	From District	To District	Within District
[1]'Other' includes modes such as school bus, other bus and minibus, paratransit, taxi, motorcycle/scooter, and other atypical modes, such as VIA Rail, airplane, and ferry. It is noted that 'Other' is mainly school bus.						

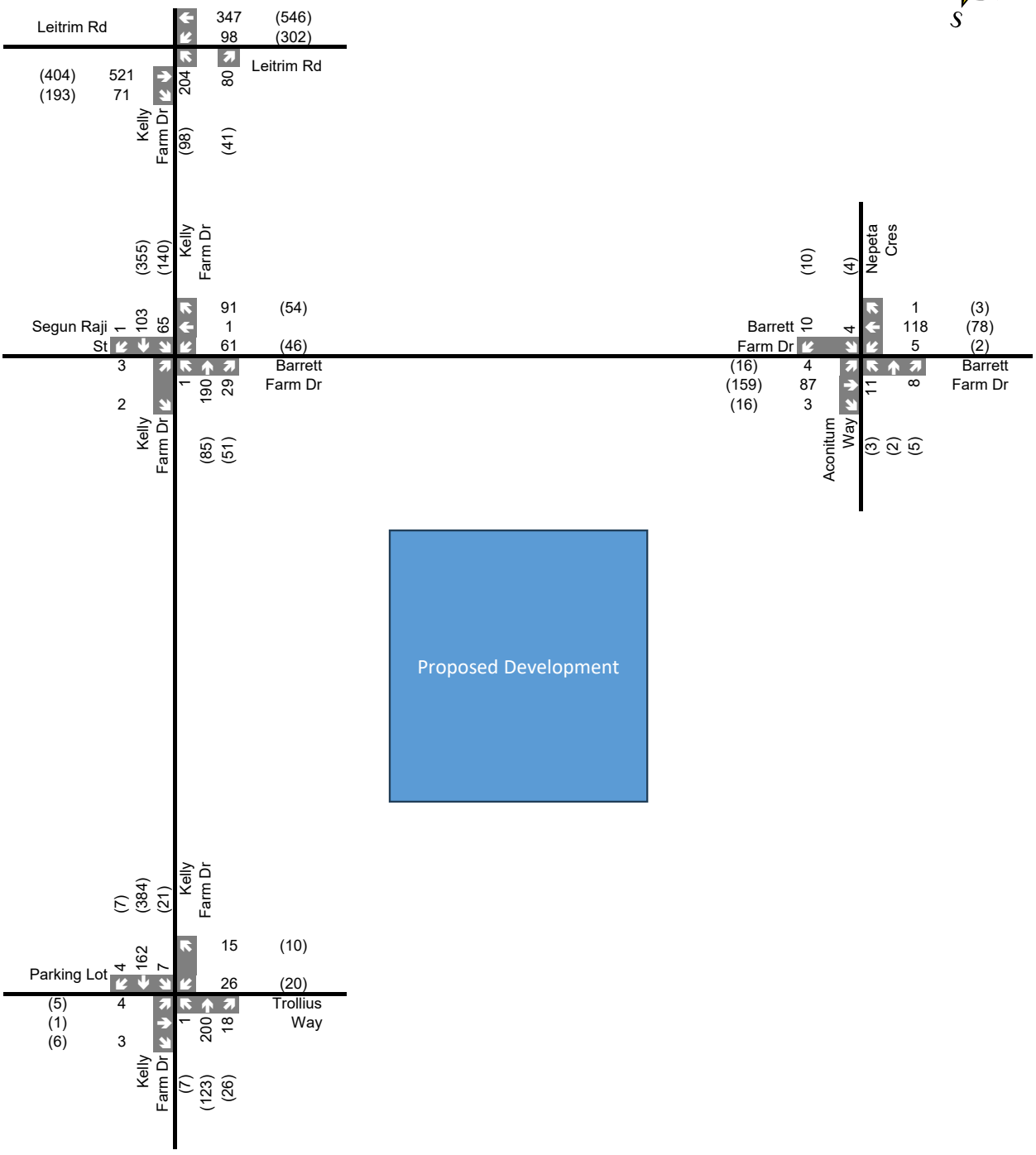
Based on the district mode shares presented in **Table 2-3**, most trips during the AM and PM peak periods are auto driver trips. There are fewer transit trips than auto passenger trips and walking and cycling trips represent a low proportion of trips to and from the district. However, it is noted that within the district, walking has a mode share of 17% and 25% during the AM and PM peak periods, respectively. Notably, 'other' has a mode share of 21% to the district during the AM peak period. The district mode shares were considered when determining the mode shares for the proposed development later in **Section 2.7.1**.

The existing peak hour turning movement counts (TMCs) at the study area intersections are listed in **Table 2-4** and illustrated in **Figure 2-15**.

The existing peak hour pedestrian and cyclist volumes are subsequently illustrated in **Figure 2-16**. It is noted that the traffic counts were captured during the Fall months such that pedestrian and cyclist volumes may be less than what is expected during warmer months. The full raw traffic counts are provided in **Appendix D**. No growth rate was applied to the traffic volumes since the count year is the same as the baseline year for analysis (i.e., 2024), but the traffic volumes were balanced to account for the different count dates and adjacent land uses and accesses.

Table 2-4: Traffic Count Data

Intersection	Source	Count Date
Leitrim Road / Kelly Farm Drive	City of Ottawa	Wednesday, November 20, 2024
Kelly Farm Drive / Barrett Farm Drive	City of Ottawa	Wednesday, November 13, 2024
Kelly Farm Drive / Trollius Way	City of Ottawa	Wednesday, November 20, 2024
Barrett Farm Drive / Nepeta Crescent-Aconitum Way	City of Ottawa	Wednesday, November 20, 2024



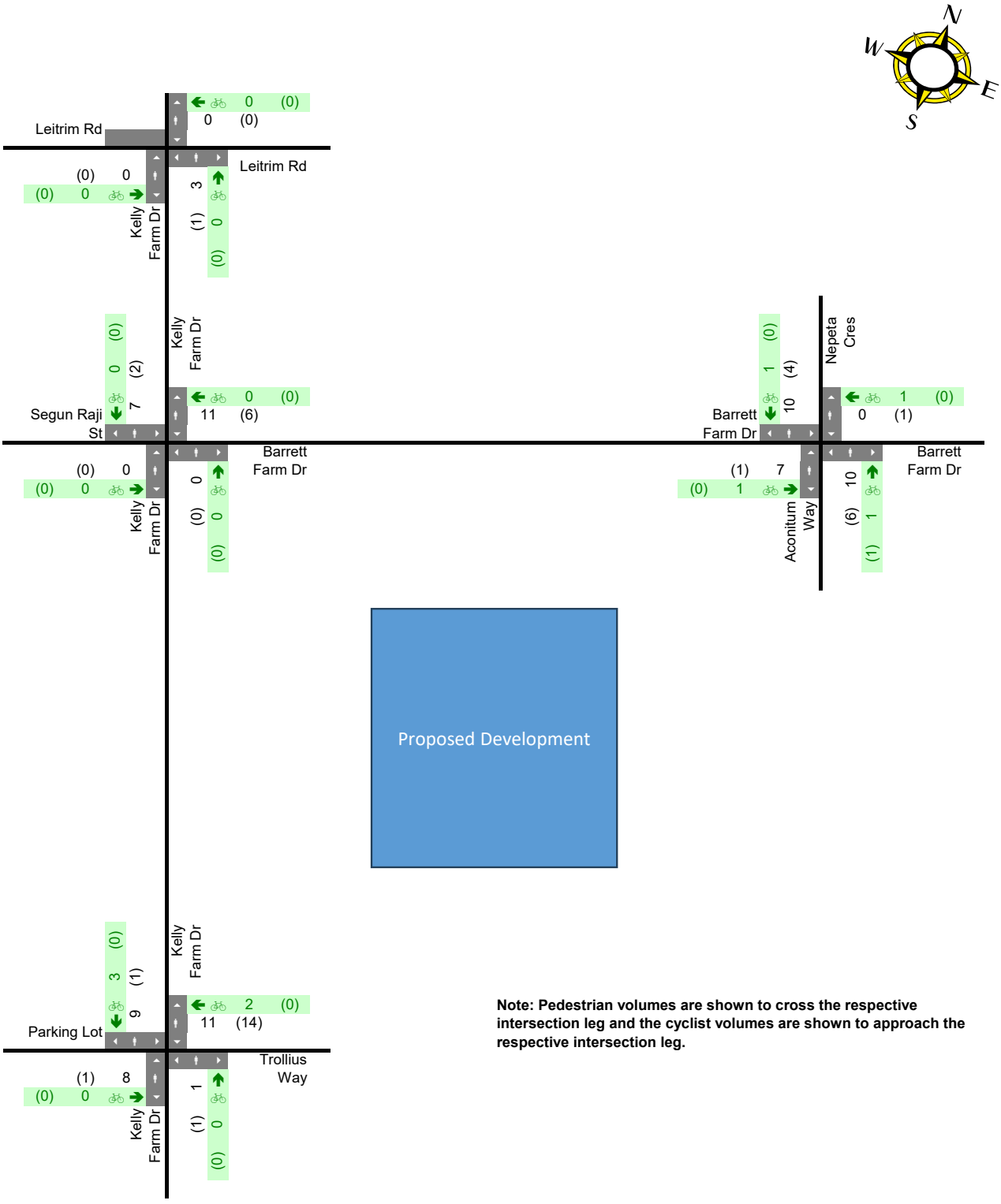
Legend

xx A.M. Peak Hour Traffic Volumes

(xx) P.M. Peak Hour Traffic Volumes

Figure 2-15

Existing (2024) Peak Hour Vehicular Volumes (Balanced)



Legend

xx A.M. Peak Hour Traffic Volumes

(xx) P.M. Peak Hour Traffic Volumes

Figure 2-16

Existing (2024) Peak Hour Pedestrian and Cyclist Volumes

2.2.8 Collision History

The latest collision history (2017-2022) available on the City of Ottawa Open Data website was reviewed for the study area, which provides yearly total collisions by location for all modes over a six-year period. **Figure 2-17** summarizes the Open Data collision history on the study area roads and intersections (represented by the red dots).

Figure 2-17: Historical Collision Locations 2017-2022

Table 2-5 summarizes the study area collisions by location and year and **Table 2-6** summarizes the study area collisions by location and type.

The Open Data summary, as detailed in **Table 2-5**, reports a total of 31 collisions within the study area from 2017 to 2022. Of these incidents, 5 (16%) occurred at the signalized intersection of Leitrim Road and Kelly Farm Drive, 23 (74%) took place at midblock segments, and 3 (10%) were at unsignalized intersections.

Among the historical collisions in the study area (**Table 2-6**), single motor vehicle (SMV) unattended vehicle collisions were the most prevalent, accounting for 12 (39%) of the 31 recorded incidents. These were also the most common collision type at midblock locations. At signalized intersections, rear-end and sideswipe collisions were the most frequent. The number of collisions adjacent to the site has been minimal and limited to single motor vehicle (SMV) unattended vehicle collisions.

Table 2-5: Historical Collison Data 2017-2022 by Location and Year

Location	2017	2018	2019	2020	2021	2022	6-Year Total
KELLY FARM DR @ LEITRIM RD			2		1	2	5
Traffic Signal – Subtotal			**2**		**1**	**2**	**5**
BARRETT FARM DR @ KELLY FARM DR						1	1
KELLY FARM DR @ LEITRIM RD				1			1
WHITE ALDER AVE @ KELLY FARM DR				1			1
Stop Sign – Subtotal				**2**		**1**	**3**
ACONITUM WAY btwn BARRETT FARM DR & LAVATERA ST				1			1
ACONITUM WAY btwn LAVATERA ST & LAVATERA ST				1			1
BARRETT FARM DR btwn ACONITUM WAY/NEPETA CRES & MUSCARI ST/TROLLIUS WAY					1		1
BARRETT FARM DR btwn KELLY FARM DR & NEPETA CRES				1			1
BRADWELL WAY btwn KELLY FARM DR & WHITE ALDER AVE			1				1
GOLDEN SEDGE WAY btwn BUFFLEHEAD WAY & SPARTINA ST			1				1
KELLY FARM DR btwn BARRETT FARM DR & LEITRIM RD					1		1
KELLY FARM DR btwn BARRETT FARM DR & TROLLIUS WAY				1			1
KELLY FARM DR btwn CRESTON VALLEY WAY & WHITE ALDER AVE			1			1	2
KELLY FARM DR btwn TROLLIUS WAY & WHITE ALDER AVE					1		1
LAVATERA ST btwn ACONITUM WAY N & ACONITUM WAY S				1			1
LEITRIM RD btwn BANK ST & FENTON RD	1	1	3	3			8
MUSCARI ST btwn BARRETT FARM DR & LEITRIM RD					1		1
NEPETA CRES btwn BARRETT FARM DR & BARRETT FARM DR				1			1
TROLLIUS WAY btwn BARRETT FARM DR & LAVATERA ST					1		1
Midblock Segments – Subtotal	**1**	**1**	**6**	**9**	**5**	**1**	**23**
Grand Total	**1**	**1**	**8**	**11**	**6**	**4**	**31**

Table 2-6: Historical Collision Data 2017-2022 by Location and Type (Based on Initial Impact)

Location	Approaching	Angle	Rear End	Sideswipe	Turning Movement	SMV Unattended Vehicle	Other	Total
KELLY FARM DR @ LEITRIM RD	1		2	2				5
Traffic Signal – Subtotal	**1**		**2**	**2**				**5**
BARRETT FARM DR @ KELLY FARM DR					1			1
KELLY FARM DR @ LEITRIM RD				1				1
WHITE ALDER AVE @ KELLY FARM DR		1						1
Stop Sign – Subtotal		**1**		**1**	**1**			**3**
ACONITUM WAY btwn BARRETT FARM DR & LAVATERA ST						1		1
ACONITUM WAY btwn LAVATERA ST & LAVATERA ST						1		1
BARRETT FARM DR btwn ACONITUM WAY/NEPETA CRES & MUSCARI ST/TROLLIUS WAY					1			1
BARRETT FARM DR btwn KELLY FARM DR & NEPETA CRES						1		1
BRADWELL WAY btwn KELLY FARM DR & WHITE ALDER AVE						1		1
GOLDEN SEDGE WAY btwn BUFFLEHEAD WAY & SPARTINA ST		1						1
KELLY FARM DR btwn BARRETT FARM DR & LEITRIM RD						1		1
KELLY FARM DR btwn BARRETT FARM DR & TROLLIUS WAY							1	1
KELLY FARM DR btwn CRESTON VALLEY WAY & WHITE ALDER AVE						2		2
KELLY FARM DR btwn TROLLIUS WAY & WHITE ALDER AVE						1		1
LAVATERA ST btwn ACONITUM WAY N & ACONITUM WAY S						1		1
LEITRIM RD btwn BANK ST & FENTON RD	1		5	1	1			8
MUSCARI ST btwn BARRETT FARM DR & LEITRIM RD						1		1
NEPETA CRES btwn BARRETT FARM DR & BARRETT FARM DR						1		1
TROLLIUS WAY btwn BARRETT FARM DR & LAVATERA ST						1		1
Midblock Segments – Subtotal	**1**	**1**	**5**	**1**	**2**	**12**	**1**	**23**
Grand Total	**2**	**2**	**7**	**4**	**3**	**12**	**1**	**31**

2.3 Planned Conditions

2.3.1 Changes to the Study Area Transportation Network

The City of Ottawa Official Plan (2022) and Transportation Master Plan (TMP) (2013), were reviewed to identify potential future roadway upgrades in the vicinity of the proposed development site within the study horizon years, as listed below:

- **Leitrim Road Realignment and Widening (River Road to Bank Street):** In 2018, the City completed the Environmental Assessment (EA) study for the realignment and widening of Leitrim Road from River Road to Bank Street, as shown in **Figure 2-18**. This study was crucial to establish future ROW requirements and protect the corridor from development. The findings guide the planning and development of adjacent lands. The realignment was driven by the Ottawa International Airport Authority's plans for a new southern runway, potentially beyond 2031. The study also reimagined Leitrim Road as a complete street for all transportation modes, while adding capacity. Although identified in the TMP, the project is not part of the TMP's Affordable Network. The EA recommended four lanes in most sections to meet future demand from Riverside South and Leitrim communities. However, the section between River Road and Limebank Road remains as two lanes.

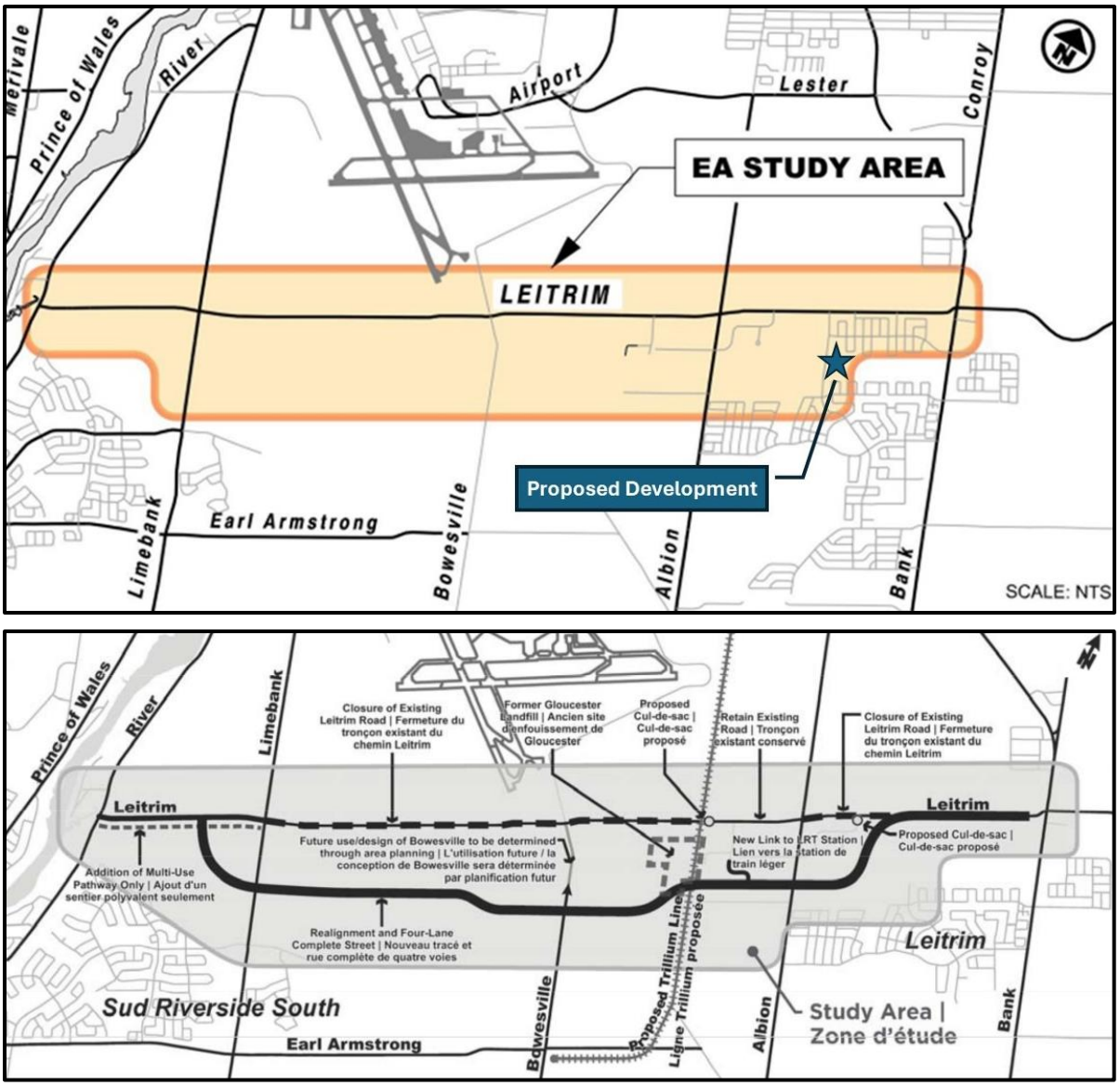


Figure 2-18: Leitrim Road Realignment and Widening EA Study Area and Recommended Plan

– **Leitrim Community Design Plan:** The Leitrim Community Design Plan (CDP) was initiated in November 2003 to provide this coordinated vision. The Official Plan envisions "developing communities", such as Leitrim, as those that include a mix of land uses and housing types, in a compact and mixed-use form, that cluster neighbourhood facilities and services, and that have excellent pedestrian and transit connections. The Leitrim CDP is comprised of six main components: the Land Use Plan, the Community Design Guidelines, the Greenspace Plan, the Servicing Plan, the Transportation Plan, and the Implementation Plan.

  The Transportation Network Plan (Section 7.0) identifies the recommended road network within the Leitrim CDP, based on the direction of the Official Plan and TMP. Bank Street and Albion Road are ultimately planned to be four-lane arterial roads,

while Leitrim Road (prior to the EA Study mentioned above) and the extension of Earl Armstrong Road south of the Leitrim CDP are to be two-lane arterial roads. The road network of collector and local roads within the Leitrim CDP is based on a modified grid system of roads. The assessment of the road network confirmed that there is sufficient capacity for internal and external traffic, that public transit will be accessible and have numerous routing options, that the modified grid pattern provides good pedestrian access, and that the road network readily serves the commercial centres. In terms of rapid transit in Leitrim, the CDP defers to the EA Study for the North-South Light Rail Project at the time that was scheduled to be completed in September 2005. **Figure 2-19** shows the main spine roads for the community as outlined in the Leitrim CDP. It should be noted that, according to the CDP, Barrett Farm Drive is planned to be extended to Bank Street. However, no definitive timeline is currently available for this extension.

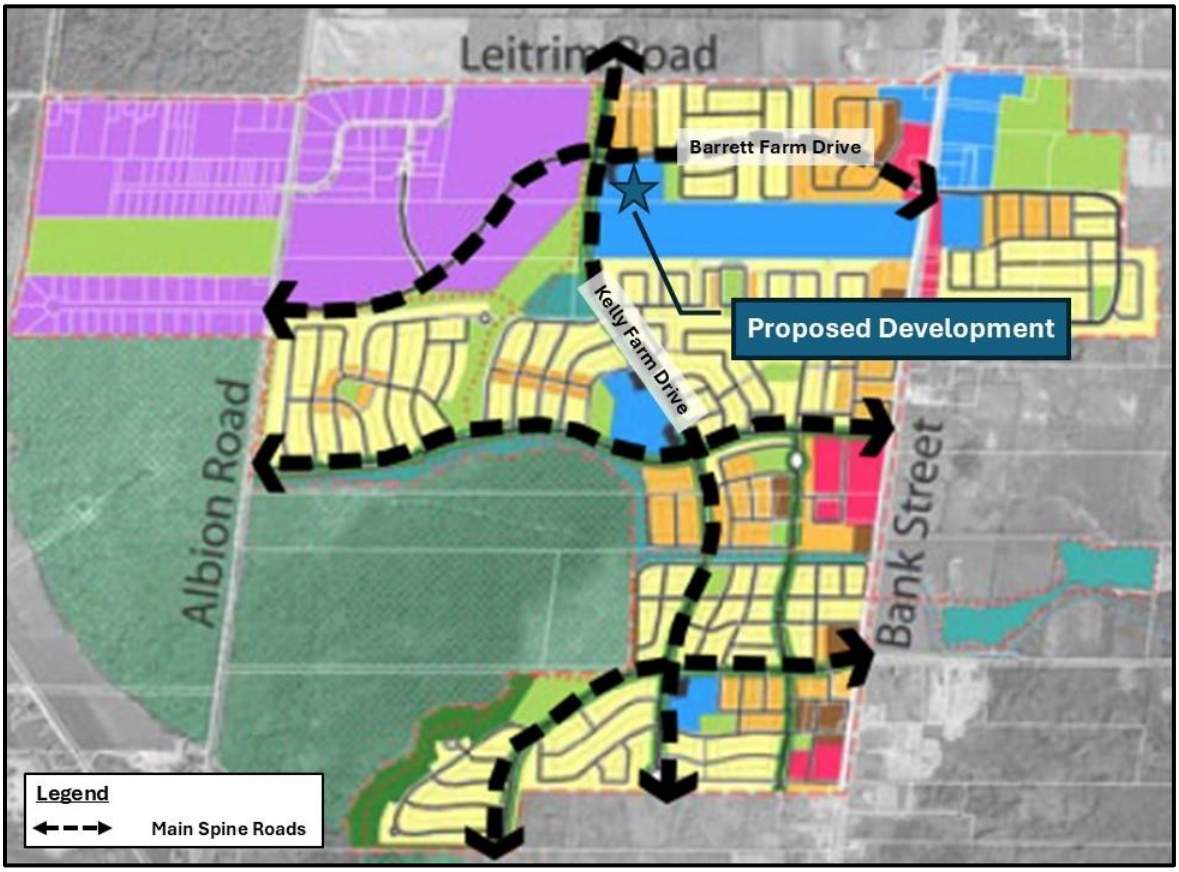


Figure 2-19: Leitrim Community Design Plan – Main Spine Roads

The proposed Findlay Creek Phase 5 residential development west of the site, as further described in **Section 2.3.2** and illustrated in **Figure 2-20**, has a street network that is only accessed from two intersections on Kelly Farm Drive.

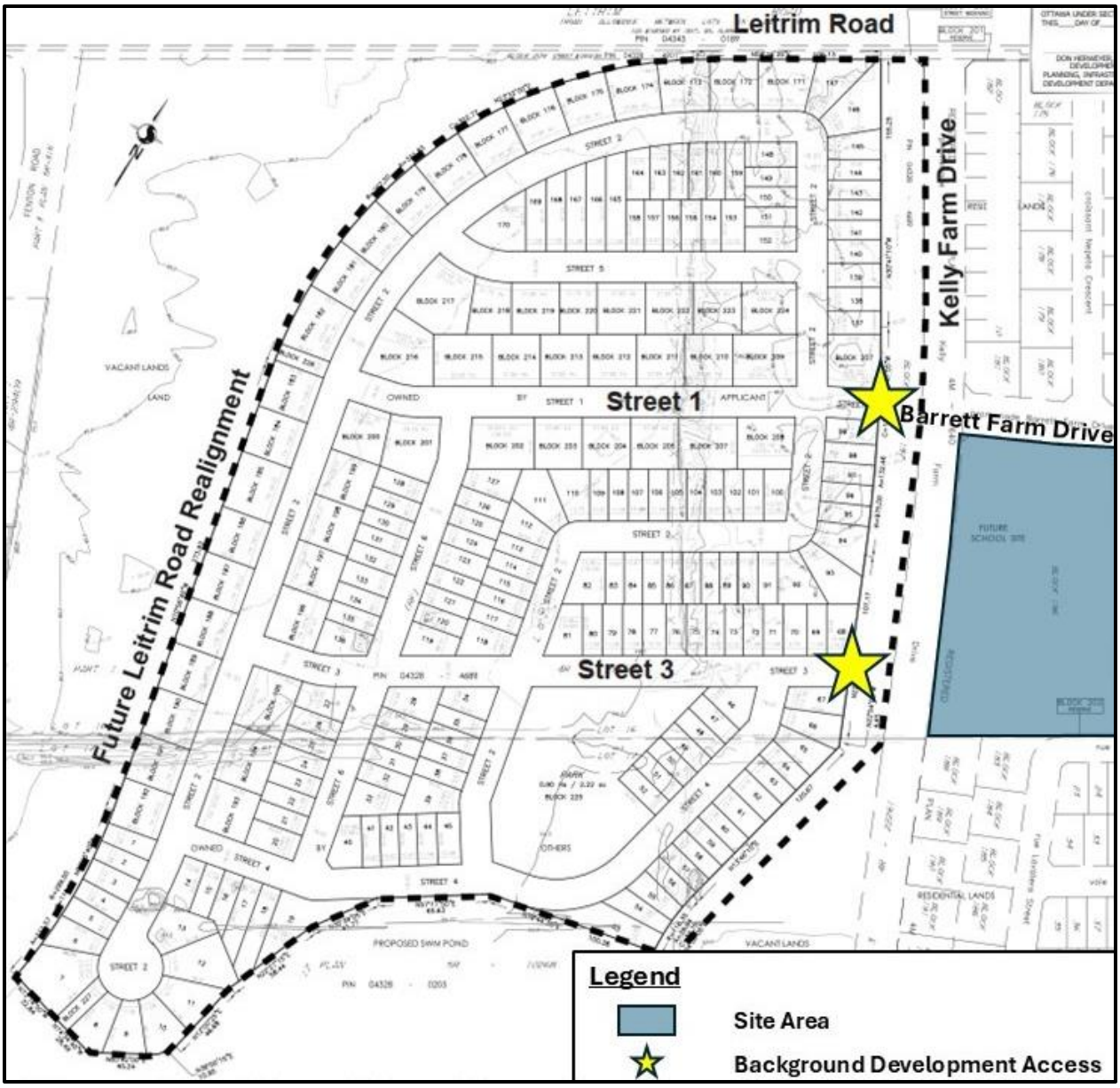


Figure 2-20: Findlay Creek Phase 5 Street Network (Source: Findlay Creek Phase 5 TIA by IBI Group, September 2020)

Unlike the main spine roads in the original Leitrim CDP (2005), Barrett Farm Drive will not extend westward to Albion Road based on the Leitrim Road Realignment and Widening EA (2018) and the Findlay Creek Phase 5 TIA (2020).

2.3.2 Other Study Area Developments

According to the City of Ottawa's website, there are currently no active surrounding developments listed in the Development Application Search Tool. The only development listed in the Development Application Search Tool is 3100 Leitrim Road (Application # D07-04-22-0010), which includes the construction of 15 townhouses and 36 back-to-

back units (total of 51 units) located near the south-west corner of the intersection of Bank Street and Barrett Farm Drive (Block 178 of Barrett Lands Phase 3). The development build-out year is 2024 and the corresponding TIA Screening Form (December 2022) indicated that a TIA is not required due to the Trip Generation, Location, and Safety Triggers not being satisfied.

It is noted that there are ongoing residential developments near the site to the east and west, which will need to be accounted for in the future background growth rate. Findlay Creek has expanded substantially since the 2011 O-D survey was undertaken based on aerial imagery. Based on the Findlay Creek Village – Tartan Homes Site Map (January 2025)[1], the residential construction of single and attached homes to the east and west of the site will occur in phases, as illustrated in **Figure 2-21**.

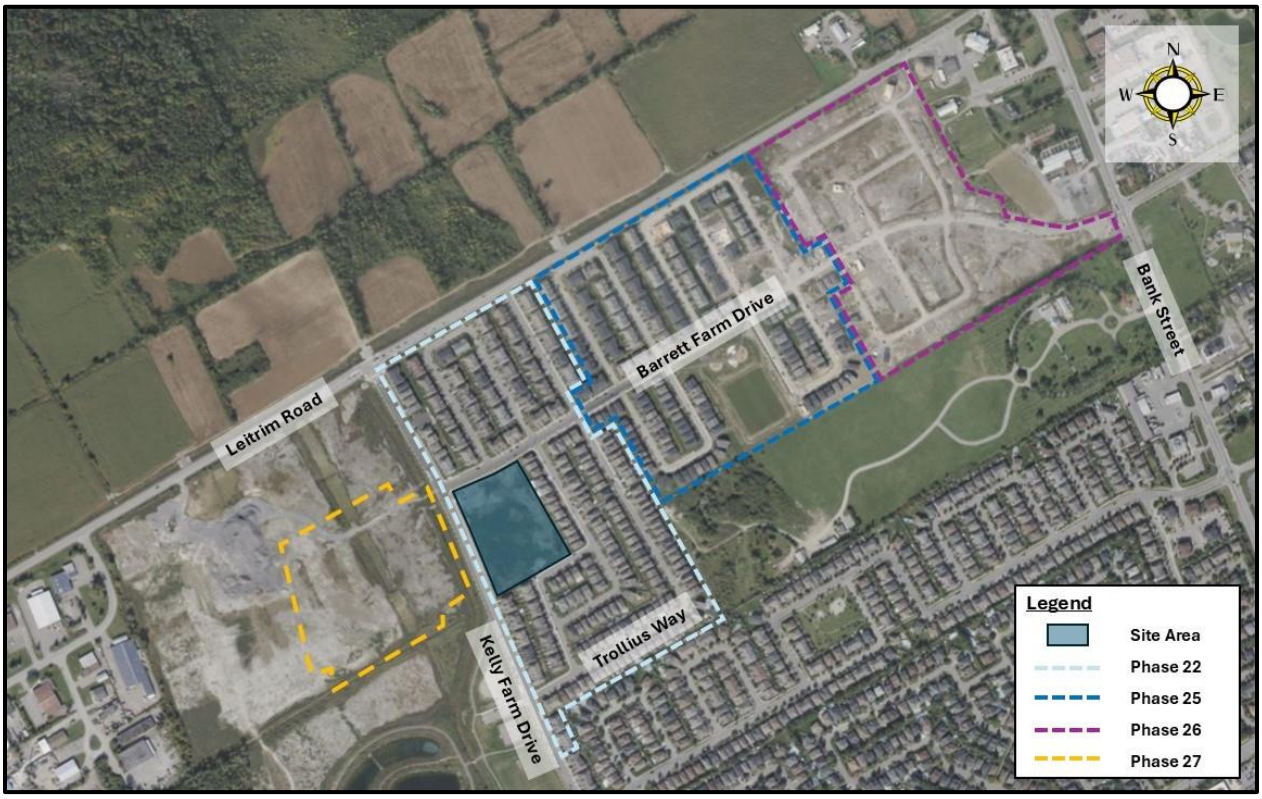


Figure 2-21: Findlay Creek Village – Tartan Homes Site Map and Phases

In addition, two (2) developments as identified by the City of Ottawa's Transportation Engineering Service department that are not available in the Development Application Search Tool are expected to occur within the horizon years of the proposed development and/or could have direct influences on the study area. These background developments are illustrated in **Figure 2-22** and are listed below:

[1] Tartan Homes. *Findlay Creek Village Site Plan*. Accessed February 4, 2025. https://tartanhomes.com/communities/findlay-creek/

- **2960 Leitrim Road (Findlay Creek Phase 5):** Plan of Subdivision application for a proposed residential development (Findlay Creek Village Tartan Homes) to include 170 single-family homes and 219 townhomes. The development will be accessed by two new intersections on Kelly Farm Drive: one opposite to Barrett Farm Drive and one approximately 295 m south of Leitrim Road. The anticipated build-out year is 2026 and will be completed in a single phase. The supporting TIA (September 2020) was prepared by IBI Group.
- **4140 Kelly Farm Drive:** Site Plan application for a proposed single storey elementary school (4,630 m^2) and child care centre (275 m^2). The development will have a single access to the parking lot on Kelly Farm Drive. The anticipated opening year is September 2024 and will be completed in a single phase. Based on the latest Google Street View (October 2024) and St. Veronica School's website, the construction of the school is complete and is operational for the 2024/2025 school year. The supporting TIA (February 2023) was prepared by Dillon Consulting. The existing TMCs at the study area intersections were collected in November 2024, indicating that traffic generated by the newly constructed elementary school is captured in the existing traffic volumes.

Figure 2-22: Background Development Locations (Source: Bing Maps)

2.4 Study Area and Time Period

The time periods identified for the traffic analysis are:

- Weekday AM Peak Hour: 7:30 a.m. to 8:30 a.m.
- Weekday PM Peak Hour: 4:45 p.m. to 5:45 p.m.

These are consistent with the peak hours identified in the TMCs that were collected at the study area intersections.

2.5 Horizon Years

The proposed development is expected to be completed in a single phase with a target build-out year of 2027. In accordance with the City of Ottawa TIA Guidelines (2017), the following two horizon years will be considered for analysis:

- 2027 – represents the anticipated opening year
- 2032 – represents the build-out year plus five years

2.6 Exemptions Review

Table 2-7 provides a summary of the TIA modules that will be included and exempted in the subsequent TIA Strategy Report.

Table 2-7: TIA Exemptions Summary

Site Design & TDM Modules	Element	Exemptions Considerations	Required
Design Review Component			
4.1 Development Design	4.1.1 Design for Sustainable Modes	Required for all TIAs	Yes
	4.1.2 Circulation and Access	Required for all site plan and zoning by-law applications	Yes
	4.1.3 New Street Networks	Required for all plans of subdivision	No
4.2 Parking	4.2.1 Parking Supply[1]	Required for all site plan and zoning by-law applications	Yes
4.3 Boundary Street Design	Required for all TIAs		Yes
Network Impact Component			
4.5 TDM	4.5.1 Context for TDM	Required for all TIAs	Yes
	4.5.2 Need and Opportunity	Required for all TIAs	Yes
	4.5.3 TDM Program	Required for all TIAs	Yes
4.6 Neighbourhood Traffic Calming	If the development meets all of the following criteria along the route(s) site generated traffic is expected to utilize between an arterial and the site's access: 1. ☑ Access to Collector or Local (OP Urban, Downtown, Rural, Village Road Networks); 2. ☐ "Significant sensitive land use presence" exists, where there is at least two of the following adjacent to the subject street segment" a. ☐ School (within 250 m walking distance);		No

Site Design & TDM Modules	Element	Exemptions Considerations	Required
	b. ☑ Park; c. ☐ Retirement / Older Adult Facility (i.e., long-term care and retirement homes); d. ☐ License Child Care Centre; e. ☐ Community Centre; or f. ☑ 50%, or greater, of adjacent property along the route(s) is occupied by residential lands and a minimum of 10 occupied residential units are present on the route. 3. ☐ Application is for Zoning By-Law Amendment or Draft Plan of Subdivision; 4. ☑ At least 75 site-generated auto trips; 5. ☑ Site Trip Infiltration is expected. Site traffic will increase peak hour volumes along the route by 50% or more.		
4.7 Transit	4.7.1 Transit Route Capacity	> 75 site transit trips	No
	4.7.2 Transit Priority Requirements	> 75 site auto trips	Yes
4.8 Network Concept	When proposed development generates > 200 person-trips during the peak hour in excess of the equivalent volume permitted by the established zoning.		No
4.9 Intersection Design[2]	4.9.1 Intersection Controls (including site accesses)	> 75 site auto trips	Yes
	4.9.2 Intersection Design	> 75 site auto trips	Yes

[1] Include language that asks for justification of change to Zoning By-law parking requirements.

[2] Module 4.4: Access Intersections Design has been consolidated in Module 4.9 per the revisions to the TIA Guidelines (May 2023).

Based on **Table 2-7**, the TIA will include the following modules:

- Module 4.1.1: Design for Sustainable Modes
- Module 4.1.2: Circulation and Access
- Module 4.2: Parking
- Module 4.3: Boundary Street Design
- Module 4.5: TDM
- Module 4.7.2: Transit Priority Requirements
- Module 4.9: Intersection Design

The following modules are proposed to be exempted:

- Module 4.1.3: New Street Networks
- Module 4.6: Neighbourhood Traffic Calming
- Module 4.7.1: Transit Route Capacity
- Module 4.8: Network Concept

2.7 Development-Generated Traffic

2.7.1 Trip Generation

The proposed development consists of two primary trip generator land uses which are an elementary school and daycare. Trips generated by the elementary school and daycare have been estimated based on the most up-to-date information provided by the school board as follows:

- 2027 build-out year full capacity:
    - School: 354 students and 23 staff
    - Daycare: 49 children and 9 staff
- 2032 horizon year full capacity:
    - School: 630 students and 35 staff
    - Daycare: 49 children and 9 staff

The school board indicated that it is likely that there will be an addition of 12 portables by 2032, but the school is not anticipated to operate at full capacity for both the 2027 and 2032 horizon years. For trip generation purposes, a conservative approach was taken by assuming that the school would be operating at full capacity within the scope of this study to evaluate the worst-case scenario.

At the time of this report, it was too early to know the school and daycare operating hours, as well as the school's catchment area and percentage of the student population expected to arrive and depart by school bus. Daycares tend to have an earlier start time

and later end time than schools so that parents can drop-off and pick-up their children outside of their working hours. It is likely that the school and daycare operating hours will align with the AM peak hour of adjacent street traffic, but the afternoon school bell may be earlier than the PM peak hour of adjacent street traffic.

Trip Generation Rates

1. Base Trip Generation Rate Selection

The ITE Trip Generation Manual (11th Edition) was used to determine the base trip generation rate for the proposed development during the AM and PM weekday peak hours of adjacent street traffic according to an *Elementary School* (Land Use Code 520) and *Day Care Center* (Land Use Code 565). The weekday AM and PM Peak Hour base trip generation rates based on the number of students, which provide the highest number of estimated trips generated, are as follows:

- Elementary School AM Base Rate: 0.74
- Elementary School PM Base Rate: 0.16
- Day Care Center AM Base Rate: 0.78
- Day Care Center PM Base Rate: 0.79

ITE Trip Generation data collection is generally based on observational counts and interview surveys that are proportional to the independent variable. In other words, vehicle trips by students, staff, school buses, etc. would be captured when using students as the independent variable. In addition, vehicle trips containing more than one child would also be captured.

The total new vehicle trips generated by the proposed development according to the ITE trip generation rates are summarized in **Table 2-8** and **Table 2-9** for the 2027 and 2032 horizon years, respectively.

Table 2-8: Proposed Development-Generated Vehicle Trips – 2027

AM Peak Hour									
Land Use	**ITE Code**	**Size**	**Unit**	**Avg. Rate**	**% in**	**% out**	**Total Trips**	**Trips In**	**Trips Out**
Elementary School	520	354	Students	0.74	54%	46%	262	141	121
Day Care Center	565	49	Students	0.78	53%	47%	38	20	18
						Total New Trips	**300**	**162**	**138**
PM Peak Hour									
Land Use	**ITE Code**	**Size**	**Unit**	**Avg. Rate**	**% in**	**% out**	**Total Trips**	**Trips In**	**Trips Out**
Elementary School	520	354	Students	0.16	46%	54%	57	26	31
Day Care Center	565	49	Students	0.79	47%	53%	39	18	21
						Total New Trips	**95**	**44**	**51**

Based on the ITE trip generation rates, the proposed development in projected to generate 300 and 95 vehicle trips during the weekday AM and PM peak hours, respectively, for the 2027 horizon year.

Table 2-9: Proposed Development-Generated Vehicle Trips – 2032

AM Peak Hour									
Land Use	**ITE Code**	**Size**	**Unit**	**Avg. Rate**	**% in**	**% out**	**Total Trips**	**Trips In**	**Trips Out**
Elementary School	520	630	Students	0.74	54%	46%	466	252	214
Day Care Center	565	49	Students	0.78	53%	47%	38	20	18
						Total New Trips	**504**	**272**	**232**
PM Peak Hour									
Land Use	**ITE Code**	**Size**	**Unit**	**Avg. Rate**	**% in**	**% out**	**Total Trips**	**Trips In**	**Trips Out**
Elementary School	520	630	Students	0.16	46%	54%	101	46	54
Day Care Center	565	49	Students	0.79	47%	53%	39	18	21
						Total New Trips	**140**	**65**	**75**

Based on the ITE trip generation rates, the proposed development in projected to generate 504 and 140 vehicle trips during the weekday AM and PM peak hours, respectively, for the 2032 horizon year.

It is noted that all auto trips for an elementary school and daycare would be auto passenger trips since students and daycare children are not of legal age to drive. In addition, inbound and outbound trips are close to balanced for school and daycare trips due to the nature of pick-up/drop-off activity, where vehicles making these trips would be both entering and exiting the site within a short timeframe.

2. Total Development-Generated Person-Trips Estimate

In accordance with the City of Ottawa TIA Guidelines (2017), the ITE vehicle-trip rates have been multiplied by a factor 1.28 to convert to person-trip rates. The resulting person trip calculations are summarized in **Table 2-10** and **Table 2-11** for the 2027 and 2032 horizon years, respectively.

Table 2-10: Proposed Development-Generated Person Trips – 2027

AM Peak Hour									
Land Use	**ITE Code**	**Size**	**Unit**	**Avg. Rate**	**% in**	**% out**	**Total Trips**	**Trips In**	**Trips Out**
Elementary School	520	354	Students	0.95	54%	46%	335	181	154
Day Care Center	565	49	Students	1.00	53%	47%	49	26	23
						Total New Trips	**384**	**207**	**177**
PM Peak Hour									
Land Use	**ITE Code**	**Size**	**Unit**	**Avg. Rate**	**% in**	**% out**	**Total Trips**	**Trips In**	**Trips Out**
Elementary School	520	354	Students	0.20	46%	54%	72	33	39
Day Care Center	565	49	Students	1.01	47%	53%	50	23	26
						Total New Trips	**122**	**57**	**65**

Based on the ITE trip generation rates and Ottawa conversion factor, the proposed development in projected to generate 384 and 122 person trips during the weekday AM and PM peak hours, respectively, for the 2027 horizon year.

Table 2-11: Proposed Development-Generated Person Trips – 2032

AM Peak Hour									
Land Use	**ITE Code**	**Size**	**Unit**	**Avg. Rate**	**% in**	**% out**	**Total Trips**	**Trips In**	**Trips Out**
Elementary School	520	630	Students	0.95	54%	46%	597	322	274
Day Care Center	565	49	Students	1.00	53%	47%	49	26	23
						Total New Trips	**646**	**348**	**297**
PM Peak Hour									
Land Use	**ITE Code**	**Size**	**Unit**	**Avg. Rate**	**% in**	**% out**	**Total Trips**	**Trips In**	**Trips Out**
Elementary School	520	630	Students	0.20	46%	54%	129	59	70
Day Care Center	565	49	Students	1.01	47%	53%	50	23	26
						Total New Trips	**179**	**83**	**96**

Based on the ITE trip generation rates and Ottawa conversion factor, the proposed development in projected to generate 646 and 179 person trips during the weekday AM and PM peak hours, respectively, for the 2032 horizon year.

Mode Shares

3. Existing Mode Shares for Traffic Assessment Zones

The district mode shares presented in **Section 2.2.7** indicate that most trips during the AM and PM peak periods are auto trips and transit has a mode share of less than 15%. Within the district, walking has a mode share of 17% and 25% during the AM and PM peak periods, respectively.

The 2020 TRANS Trip Generation Manual provides non-residential mode shares, specifically for elementary and high schools, which are based on the 2011 O-D survey and provide a general benchmark for schools in Ottawa. Elementary schools are defined to include students between the ages of 5 and 13 (SK to 8). It is noted that the 2020 TRANS Trip Generation Manual recommends that mode shares for Ottawa schools be developed on a site-specific basis. However, additional information from the

school board was not available in determining site-specific mode shares. The mode shares for Ottawa elementary and high schools are summarized in **Table 2-12**.

Table 2-12: Elementary and High School Mode Shares for Ottawa (Source: 2020 TRANS Trip General Manual)

Level	Mode Share					
	Auto Passenger	School Bus	Transit	Walk	Bike	Other
Elementary School	22%	48%	6%	20%	2%	2%
High School	17%	19%	38%	18%	3%	5%

The elementary school will be served by seven school buses, and it is assumed the capacity of a typical school bus ranges from 48 to 72 students based on two to three students per seat. Seven regular-sized school buses could accommodate between 336 and 504 students on that basis, which is greater than the anticipated student population for the 2027 build-out year.

School bus service is commonly provided to students living beyond a specified distance (i.e., not within walking distance) from the school while still being within the school's catchment area. For example, CEPEO schools in Ottawa are served by the Ottawa School Transportation Consortium (OSTC), in which the walking distance is specified in the school board's transportation policy. In Ottawa, the walking distance between the place of residence and the school must be greater than 0 km for kindergarten and 1.5 km for Grades 1 to 6. In other words, school transportation would be provided to all kindergarten students. Most residences within the neighbourhood of Findlay Creek are within 1.5 km of the proposed school, so it is likely that most students eligible for school transportation would have to live outside of Findlay Creek.

Given the limited information provided by the school board, the existing peak hour travel demand was adopted from the elementary school mode shares provided in the 2020 TRANS Trip Generation Manual. The elementary school mode shares for transit and walking are similar to the district mode shares. The existing mode share for trips to and from the proposed elementary school are summarized in **Table 2-13**.

Table 2-13: Existing Mode Share for Proposed Elementary School

Peak Period	Auto Passenger	School Bus	Transit	Walk	Bike	Other
AM / PM	22%	48%	6%	20%	2%	2%

An auto passenger mode share of 100% has been adopted for daycare children assuming that all children will be picked up and dropped off by parents.

4. Future Mode Share Targets for the Proposed Development

Mode shares applied to the anticipated development-generated trips are based on the elementary school mode shares provided in the 2020 TRANS Trip Generation Manual (as identified above) and align with the TIA mode shares for the newly constructed elementary school and child care centre at 4140 Kelly Farm Drive. The City of Ottawa's Official Plan has a goal of at least 50% of trips made by sustainable modes by 2046, and the City's Transportation Engineering Services department indicated that school buses would be considered as contributing to the percentage of trips made by sustainable modes. The future mode shares to be applied to development-generated trips for the proposed elementary school are summarized in **Table 2-14**.

Table 2-14: Future Mode Share Targets for the Proposed Elementary School

Travel Mode	Mode Share Target	Rationale
Walking	25%	Based on the existing network of pedestrian and cycling facilities, as well as most residences within the neighbourhood of Findlay Creek being within 1.5 km of the proposed school (i.e., likely not eligible for school transportation), the mode share for walking and cycling is assumed to be similar to the existing mode share.
Cycling	5%	
Transit	5%	Elementary school students typically use school buses more so than transit based on their age.
Auto Passenger	20%	As a conservative approach to the evaluation of impacts to traffic operations, minimal reduction to the auto passenger mode share has been assumed below the existing mode share.
School Bus	45%	With the school's catchment area and percentage of the student population expected to arrive and depart by school bus being unknown, it is assumed that approximately half of the students will take the school bus. Additionally, it is assumed that all seven buses would be in operation regardless of bus occupancy.

5. Projected Proposed Development Trips by Mode and Phase

The proposed development will be constructed in one phase and the 2027 and 2032 development trips by mode are shown in **Table 2-15** and **Table 2-16**, respectively.

Table 2-15: 2027 Development-Generated Trips by Mode

Peak Hour	Direction	Auto Passenger	School Bus	Transit	Walking	Cycling	Total
AM	Inbound	62	81	9	45	9	207
	Outbound	54	69	8	39	8	177
	Total	**116**	**151**	**17**	**84**	**17**	**384**
PM	Inbound	30	15	2	8	2	57
	Outbound	34	18	2	10	2	65
	Total	**64**	**33**	**4**	**18**	**4**	**122**

Table 2-16: 2032 Development-Generated Trips by Mode

Peak Hour	Direction	Auto Passenger	School Bus	Transit	Walking	Cycling	Total
AM	Inbound	90	145	16	81	16	348
	Outbound	78	124	14	69	14	297
	Total	**168**	**269**	**30**	**149**	**30**	**646**
PM	Inbound	35	27	3	15	3	83
	Outbound	40	31	3	17	3	96
	Total	**75**	**58**	**6**	**32**	**6**	**179**

6. Trip Reduction Factors

In many cases, elementary school and daycare drop-offs by parents will be planned as part of a parent's commute (i.e., some trips will not be new to the overall road network). The ITE Trip Generation Handbook (3rd Edition) indicates an average diverted trip proportion of 56% and an average pass-by trip proportion of 0% specific to daycare centres. However, the Handbook does not indicate a diverted trip or pass-by trip proportion for elementary schools. To be conservative, this analysis is based on all auto

trips generated by the elementary school to be primary trips added to the road network due to there being no available data.

The diverted trip proportion for the daycare has been applied to background traffic volumes. Diverted trips have been assumed to originate from traffic volumes along Leitrim Road, which will divert to the daycare before continuing their original path. It is noted that pass-by trips involve no route diversion and would involve trips passing the site on an adjacent roadway (i.e., Kelly Farm Drive and Barrett Farm Drive). Based on the nature of pass-by trips and the average pass-by trip proportion for daycares being 0%, it is assumed that there are no diverted/pass-by trips for the daycare from Kelly Farm Drive and Barrett Farm Drive.

In addition, an elementary school and daycare are not anticipated to generate internal capture of trips (i.e., trips between different uses of the same development) as part of the trip composition. Therefore, adjustments for these trip types have not been applied to the development-generated trips. Overall, the development-generated traffic consists of non-pass by trips with most trips being new/primary trips added to the surrounding transportation network.

2.7.2 Trip Distribution

The overall trip distribution of the development-generated trips has been adopted from existing traffic patterns pertaining to Findlay Creek and the current transportation network using the TMCs (see **Appendix D**) provided by the City of Ottawa for the four study area intersections. The trip distribution for the proposed development is presented in **Table 2-17**.

Table 2-17: Study Area Inbound and Outbound Trip Distribution

Direction (to/from)	AM Peak Hour		PM Peak Hour	
	% In	% Out	% In	% Out
South via Kelly Farm Dr	**41%**	**32%**	**20%**	**58%**
East	**44%**	**33%**	**54%**	**27%**
via Leitrim Rd	20%	14%	41%	6%
via Barrett Farm Dr	24%	19%	13%	21%
West via Leitrim Rd	**15%**	**35%**	**26%**	**15%**
Total	**100%**	**100%**	**100%**	**100%**

The existing traffic patterns for the study area boundary, as summarized in **Table 2-17**, indicate that the largest percentage of trips enter the study area from the east via Leitrim Road and Barrett Farm Drive and exit the study area to the west via Leitrim Road during the AM peak hour. During the PM peak hour, the largest percentage of

trips enter the study area from the east via Leitrim Road and Barrett Farm Drive and exit the study area to the west via Leitrim Road. Overall, over 50% of trips on average entering and exiting the study area are internal to Findlay Creek.

2.7.3 Trip Assignment

The proposed development has one vehicle access from Barrett Farm Drive to the parking lot/pick-up and drop-off area that will serve both the elementary school and daycare. The development-generated trips corresponding to auto passenger vehicles and school buses will be considered for analysis purposes. The additional lay-by areas on the north and west sides of the site that are intended to be used as other pick-up/drop-off spaces for the daycare and student transportation, respectively, have very few spaces, as illustrated in **Appendix B**. The two on-street daycare pick-up/drop-off spaces are located adjacent to the parking lot access. Therefore, the distribution of the auto passenger trips for trip assignment is based on auto passenger trips being assigned to and from the parking lot only, whereas school buses are assigned to the bus lay-by areas on Kelly Farm Drive (six lay-by spaces) and Barrett Farm Drive (one lay-by space).

School buses coming from the east and west via Leitrim Road and travelling southbound along Kelly Farm Drive are assumed to turn onto Barrett Farm, followed by Trollius Way, such that they can loop around back onto Kelly Farm Drive to access the bus lay-by area on the east side of Kelly Farm Drive. Zero school bus departures have been assumed during the PM peak hour of the adjacent street traffic, reflecting that bus departures will occur at the end of the school day before the commuter PM peak hour.

Table 2-18 and **Table 2-19** show the breakdown of the development-generated vehicle trips entering and exiting the site for the 2027 and 2032 horizon years, respectively. The diverted daycare trips are diverted to the site from Leitrim Road, which are distributed based on existing traffic patterns.

Based on the trip generation, mode share, and distribution assumptions, **Figure 2-23** and **Figure 2-24** show the distribution of development-generated vehicle trips (including passenger vehicles and school buses) assigned to the study area intersections for the 2027 and 2032 horizon years, respectively, for the purpose of analysis.

Table 2-18: Inbound and Outbound Vehicle Trip Assignment – 2027

		AM Peak Hour		PM Peak Hour	
Vehicle Trips		**In**	**Out**	**In**	**Out**
Auto Passenger[1]	**Elementary School**	36	31	7	8
	Daycare[2]	26	23	23	26
School Bus[3]		7	7	0	0
Total		**69**	**61**	**30**	**34**
Diverted Daycare Trips		15	15	13	13

[1]Auto passenger trips are destined to the parking lot/pick-up and drop-off area

[2]Diverted daycare trips are included in totals

[3]School buses are destined to the bus lay-by area on the north (one lay-by space) and west (six lay-by spaces) sides of the site, as illustrated in **Appendix B**

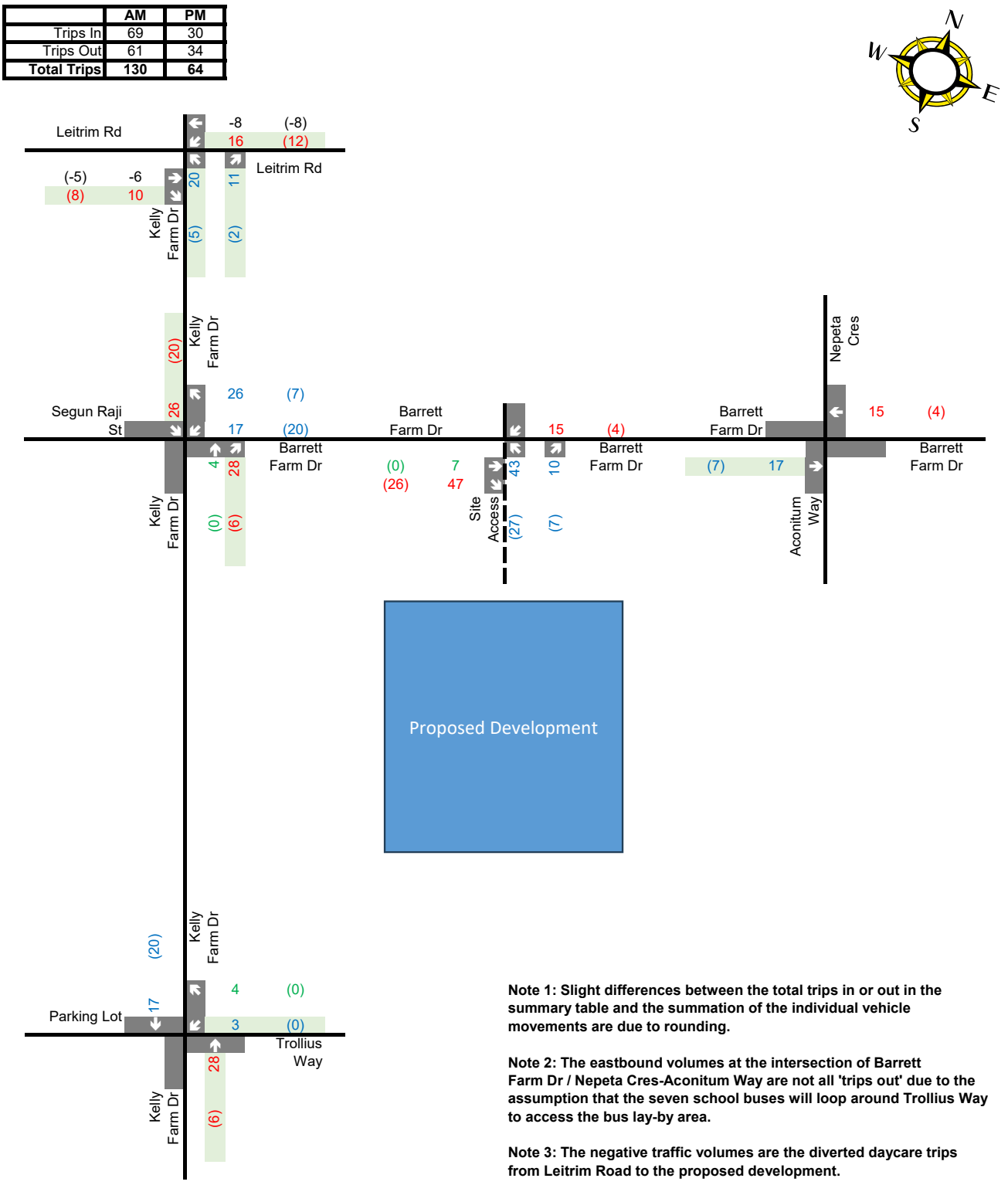
Table 2-19: Inbound and Outbound Vehicle Trip Assignment – 2032

		AM Peak Hour		PM Peak Hour	
Vehicle Trips		**In**	**Out**	**In**	**Out**
Auto Passenger[1]	**Elementary School**	64	55	12	14
	Daycare[2]	26	23	23	26
School Bus[3]		7	7	0	0
Total		**97**	**85**	**35**	**40**
Diverted Daycare Trips		15	15	13	13

[1]Auto passenger trips are destined to the parking lot/pick-up and drop-off area

[2]Diverted daycare trips are included in totals

[3]School buses are destined to the bus lay-by area on the north (one lay-by space) and west (six lay-by spaces) sides of the site, as illustrated in **Appendix B**



Legend

xx A.M. Peak Hour Traffic Volumes

(xx) P.M. Peak Hour Traffic Volumes

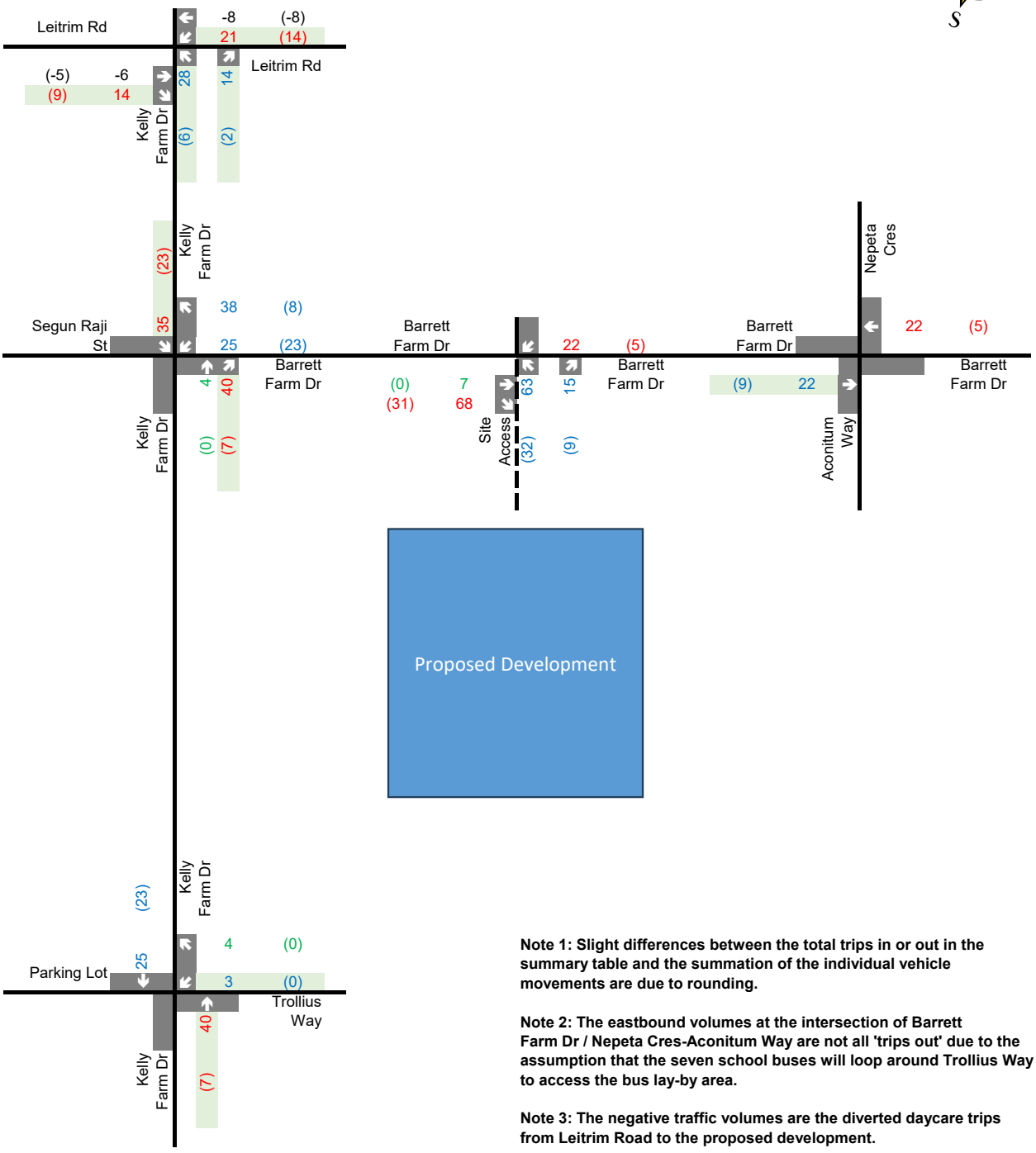
Trips In
Trips Out
School Bus Only

Passenger Vehicle/School Bus Volumes

Figure 2-23

2027 Development-Generated Auto Trips

	AM	PM
Trips In	97	35
Trips Out	85	40
Total Trips	**182**	**75**



Note 1: Slight differences between the total trips in or out in the summary table and the summation of the individual vehicle movements are due to rounding.

Note 2: The eastbound volumes at the intersection of Barrett Farm Dr / Nepeta Cres-Aconitum Way are not all 'trips out' due to the assumption that the seven school buses will loop around Trollius Way to access the bus lay-by area.

Note 3: The negative traffic volumes are the diverted daycare trips from Leitrim Road to the proposed development.

Legend

xx A.M. Peak Hour Traffic Volumes

(xx) P.M. Peak Hour Traffic Volumes

Trips In
Trips Out
School Bus Only

Passenger Vehicle/School Bus Volumes

Figure 2-24

2032 Development-Generated Auto Trips

3 Strategy

To be completed following approval of the Scoping Report herein from City of Ottawa Staff.

Appendix A

SCREENING FORM

CITY OF OTTAWA TIA SCREENING FORM

Based on July 2023 Traffic Impact Guidelines Revisions

1. Description of Proposed Development	
Municipal Address	3955 Kelly Farm Drive, Ottawa, ON
Description of Location	Located at the south-east corner of the intersection of Kelly Farm Drive and Barrett Farm Drive
Land Use Classification	Elementary School (proposed development) - property is currently undeveloped and within an Institutional / Residential Zone (I1A / R3Z)
Development Size (units)	354 students and 13 staff members
Development Size (m^2)	4,546 sq.m (building area)
Number of Accesses and Locations	One new vehicle access from Barrett Farm Drive & one new service access from Kelly Farm Drive
Phase of Development	Single Phase
Buildout Year	2027

2. Trip Generation Trigger (60 Trips)			
Land Use Type	**Minimum Development Size**	**Proposed Development Size**	**Trigger Met**
Single-Detached[1]	60 units	-	☐
Multi-Use Family (Low-Rise)[1]	90 units	-	☐
Multi-Use Family (High-Rise)[1]	150 units	-	☐
Office[2]	1,400 m^2	-	☐
Industrial[2]	7,000 m^2	-	☐
Fast-food restaurant or coffee shop[2]	110 m^2	-	☐
Destination retail[2]	1800 m^2	-	☐
Gas station or convenience market[2]	90 m^2	-	☐
Other	60 trips generated *Convert ITE vehicle trips to person trips using factor of 1.28	ITE Land Use Category 520 – Elementary School 0.74 AM / 0.16 PM trips per student 262 (57) AM (PM) vehicle trips 335 (73) AM (PM) person trips	☒

[1]Table 2, Table 3 & Table 4 TRANS Trip Generation Manual

[2]ITE Trip Generation Manual 11.1 Ed.

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3. Location Triggers	YES	NO
Does the development propose a new driveway to a boundary street that is designated as: — ☐ Part of the City's Rapid Transit or Transit Priority Networks (OP Schedule C2) — ☐ A Cross-Town Bikeway (Ottawa TMP)	☐	☒
Is the development in a: — ☐ Design Priority Area (DPA) (OP Schedules C7A-Urban and C7B-Villages) — ☐ Protected Major Transit Station Area (OP Schedule C1) — ☐ Hub Area (OP Schedule B Series)	☐	☒

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

5. Summary	YES	NO
Does the Development Satisfy the Trip Generation Trigger?	☒	☐
Does the Development Satisfy the Location Trigger?	☐	☒
Does the Development Satisfy the Safety Trigger?	☐	☒
Is a TIA Report Required for the Proposed Development?	☒	☐

Appendix B

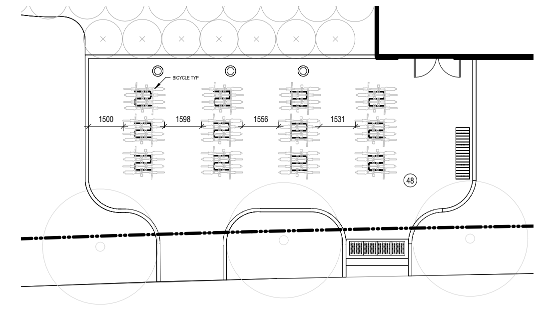
DRAFT SITE PLAN

SITE AND PARKING INFORMATION

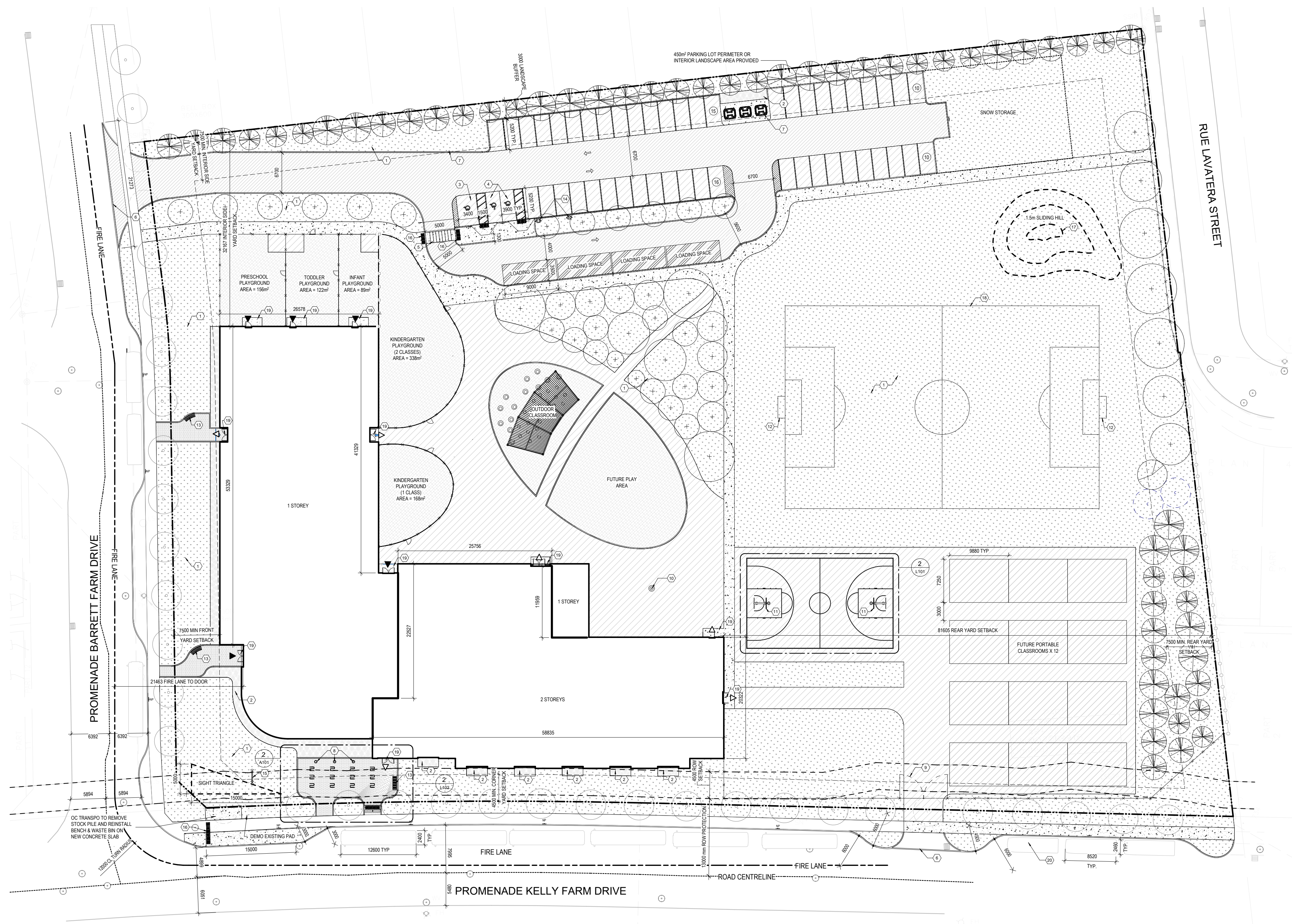
SITE DESCRIPTION	BUILDING AREA	FIRE ACCESS REQUIREMENTS	CHILD OCCUPANCY REQUIREMENTS
TYPE OF BUILDING OR USE: SCHOOL (GROUP A-2 OCCUPANCY) LEGAL DESCRIPTION: BLOCK, REGISTERED PLAN 4M-1640 MUNICIPAL ADDRESS: 3955 KELLY FARM DRIVE PARCEL IDENTIFICATION NUMBER: 04328-4888(LT) EASEMENTS: SUBJECT TO EASEMENT IN GROSS AS IN OC2168913	FIRST FLOOR = 3,002.3 m^2 (EXCLUDING DAYCARE) DAYCARE = 413.2 m^2 TOTAL BUILDING FOOTPRINT = 3,415.5m^2 + SECOND FLOOR = 1,121.6 m^2 **TOTAL AREA** = 4,537.1 m^2	FIRE TRUCK ACCESS ROUTE IS FROM MUNICIPAL COPE DRIVE AND SHALL CONFORM TO OBC 2012 - 3.2.5.4, 3.2.5.5 AND 3.2.5.6	PER ONT CHILD CARE LICENSING MANUAL REQ. OUTDOOR PLAY AREA / CHILD = 5.6m^2 PROVIDED OUTDOOR PLAY AREA / CHILD: - PRESCHOOL = 24 X 5.6 = 134.4m^2 / 156m^2 PROVIDED - TODDLERS = 15 X 5.6 = 84m^2 / 122m^2 PROVIDED - INFANTS = 15 X 5.6 = 84m^2 / 86m^2 PROVIDED - KINDERGARTEN = 90 X 5.6 = 504m^2 / 506m^2 PROVIDED

ZONING	REQUIREMENT (I1A)	PROPOSED
ZONING = I1A/R3Z - MINOR INSTITUTIONAL ZONE, SUBZONE A / RESIDENTIAL THIRD DENSITY, SUBZONE Z		
MINIMUM LOT AREA: SEC. 170, TABLE 170A (b)	400m^2	20, 729m^2
MINIMUM LOT WIDTH: SEC. 170, TABLE 170A (a)	15.0m	± 113.94m
MINIMUM FRONT YARD: SEC. 170, TABLE 170A (c)	7.5m	7.5m
MINIMUM REAR YARD: SEC. 170, TABLE 170A (d)	7.5m	± 78.85m
MINIMUM EXTERIOR SIDE YARD:	NO REQUIREMENT	-
MINIMUM INTERIOR SIDE YARD: SEC. 170, TABLE 170A (e)	7.5m	± 24.02m
MINIMUM CORNER SIDE YARD: SEC. 170, TABLE 170A (f)	4.5m	4.5m
MINIMUM LANDSCAPED OPEN SPACE	NO REQUIREMENT	5.3% WITH PARKING LOT
MAXIMUM LOT COVERAGE	NO REQUIREMENT	12.8% LOT COVERAGE
PERCENTAGE OF TOTAL SITE OCCUPIED BY VEGETATION AND LANDSCAPING	NO REQUIREMENT	77% SITE OCCUPIED
MAXIMUM BUILDING HEIGHT: SEC. 170, TABLE 170A (g)	15.0m	8.7m

PARKING PROVISIONS	
MINIMUM REQUIRED PARKING FOR NEW ELEMENTARY SCHOOL: SEC. 101, TABLE 101, N81	15 CLASSROOMS X 1.5 = 23 2 PER 100m^2 OF DAYCARE GROSS FLOOR AREA (413m^2) = 8 12 PORTABLES X 1.5 = 18 **PARKING REQ. = 49 / PARKING PROVIDED = 50**
MINIMUM NUMBER OF BARRIER-FREE PARKING SPACES: BY-LAW NO. 2017-301, SECTION 111	BARRIER-FREE PARKING SPACES **REQ.** = 2 (1 TYPE 1 & 1 TYPE 2) BARRIER-FREE PARKING SPACES **PROVIDED** = 3 (1 TYPE 1 AND 2 TYPE 2) **TOTAL SITE PARKING PROVIDED = 53**
MINIMUM REQ. WIDTH OF A LANDSCAPED BUFFER FOR PARKING LOT: SEC. 110, TABLE 110(a)	REQ.= 3m **PROVIDED= 3m**
MINIMUM REQUIRED PERIMETER OR INTERIOR LANDSCAPE AREA WITHIN PARKING LOT (SEC. 110)	PARKING AREA = 1248m^2 **REQ.** = 15% AREA OF PARKING = 187.2m^2 **PROVIDED = 450m^2**
MINIMUM NUMBER OF BICYCLE PARKING SPACES: SEC. 111, TABLE 111A (d)	SCHOOL: 1 PER 100m^2 OF GFA OFFICE: 4537 /100 = 45.4 ROUNDED TO 46 DAY CARE: 1 PER 250m^2 OF GFA = 360 /250 = 1.44 ROUNDED TO 2 **TOTAL: 48**
BICYCLE PARKING DIMENSIONS: SEC. 111, TABLE 11B	HORIZONTAL: 0.6m by 1.8m



2 / A101 BIKE PARKING AISLE SPACING
1 : 100



1 / A101 ARCHITECTURAL SITE PLAN
1 : 250

LEGEND

- LIGHT DUTY ASPHALT
- HEAVY DUTY ASPHALT
- CONCRETE SIDEWALKS
- UNIT PAVER
- SODDED AREA
- ENGINEERED WOOD FIBER
- PLANTING BED
- PAINTED ISLAND
- ENTRANCE
- EXIT
- EXISTING MANHOLE, REFER TO CIVIL
- EXISTING CATCH BASIN, REFER TO CIVIL
- EXISTING LS, LIGHT STANDARD, REFER TO ELECTRICAL AND STRUCTURAL
- ROAD CENTER LINE
- ROW SETBACK
- FIRE ROUTE
- PROPERTY LINE
- SETBACK LINE
- NEW 1200mm HT CHAIN LINK FENCE
- NEW 1200mm HT WOOD SCREEN FENCE
- EXISTING WOOD SCREEN FENCE
- 150mm CURB
- FIRE HYDRANT
- BASKETBALL NET
- NO PARKING - FIRE ROUTE SIGN
- BIKE RACKS

GENERAL SITE PLAN NOTES

1. OBC 3.2.5.5.(1) LOCATION OF ACCESS ROUTES:
   ACCESS ROUTES REQUIRED BY ARTICLE 3.2.5.4 SHALL BE LOCATED SO THAT THE PRINCIPLE ENTRANCE AND EVERY ACCESS OPENING REQUIRED BY ARTICLE 3.2.5.1 AND 3.2.5.2. ARE LOCATED NOT LESS THAN 3M AND NOT MORE THAN 15M FROM THE CLOSEST PORTION OF THE ACCESS ROUTE REQUIRED FOR FIRE DEPARTMENT USE, MEASURED HORIZONTALLY FROM THE FACE OF THE BUILDING.
2. OBC 3.2.5.6.(1) ACCESS ROUTE DESIGN:
   A PORTION OF A ROADWAY OR YARD PROVIDED AS A REQUIRED ACCESS ROUTE FOR FIRE DEPARTMENT USE SHALL, (a) HAVE A CLEAR WIDTH OF NOT LESS THAN 6M, UNLESS IT CAN BE SHOWN THAT LESSER WIDTHS ARE SATISFACTORY, (b) HAVE A CENTERLINE RADIUS NOT LESS THEN 12M, (c) HAVE AN OVERHEAD CLEARANCE OF NOT LESS THAN 5M, (d) HAVE A CHANGE OF GRADIENT NOT MORE THAN 1 IN 12.5 OVER A MINIMUM DISTANCE OF 15M, (e) BE DESIGNED TO SUPPORT THE EXPECTED LOADS IMPOSED BY FIRE FIGHTING EQUIPMENT AND BE SURFACED WITH CONCRETE ASPHALT OR OTHER MATERIAL DESIGNED TO PERMIT ACCESSIBILITY UNDER ALL CLIMATIC CONDITIONS.
3. PROVIDE 75mm THK HI-40 UNDER ALL EXTERIOR CONCRETE SIDEWALK AT ALL ENTRANCES/EXITS. EXTEND RIGID INSULATION MIN 1220 PAST THE EDGE OF CONCRETE SIDEWALKS.
4. FOR CONCRETE SIDEWALK EXPANSION AND CONTRACTION JOINTS, REFER TO CIVIL DETAIL AND SPECIFICATIONS.
5. REFER TO LANDSCAPE DRAWINGS FOR LOCATIONS OF FIRE ROUTE SIGNAGE.
6. REFER TO LANDSCAPE DRAWINGS TACTILE INDICATORS
7. THIS DRAWING IS TO BE USED IN CONJUNCTION WITH CIVIL REMOVALS PLAN FOR LOCATION OF BUTTERNUT TREES.

KEYNOTES

1 TOPSOIL AND SOD. REFER TO DETAIL 4/L-202
2 PLANTING BED
3 TYPE A ACCESSIBLE STALL
4 TYPE B ACCESSIBLE STALL
5 PEDESTRIAN CROSSING
6 DEPRESSED CURB. REFER TO CITY OF OTTAWA STANDARD SC7.1
7 IN-GROUND WASTE COLLECTION BIN
8 FLAGPOLE
9 VEHICULAR BARRIER GATE. REFER TO DETAIL 8/L-200
10 TRIPLE POST AND HOOP
11 BASKETBALL HOOP AND POST. REFER TO DETAIL 7/L-200
12 NEW MINI-SOCCER GOALS
13 BENCH. REFER TO DETAIL 1/L-201
14 DUAL PORT EV CHARGING UNIT C/W TWO (2) BOLLARDS.
15 SCHOOL SIGN. REFER TO DETAIL 3/L-201
16 TACTILE WARNING SURFACE INDICATOR
17 SODDED BERM. REFER TO CIVIL GRADING PLAN
18 SOCCER FIELD. LINES FOR SPACIAL LAYOUT PURPOSES ONLY, NOT TO BE PAINTED
19 CONCRETE PAD. REFER TO STRUCTURAL
20 MINIVAN DROPOFF AREA

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2445 Boul. St- Laurent, Ottawa, ON. K1G 6C3. Tel: 613-742-8960 Toll-free: 1-888-33CEPEO

SEAL:

THIS BAR IS 25mm LONG WHEN PLOTTED AT CORRECT SCALE. DO NOT SCALE DRAWINGS. 25mm

NORTH ARROW: TRUE NORTH

DIGITAL REFERENCE:

PROJECT NO.: CA0039818.5981 CONTRACT NO.
DRAWN BY: SB CHECKED BY: SG/AH APPROVED BY: NT

NO.	DATE	ISSUED
4	10 JAN 2025	ISSUED FOR 60% REVIEW
3	20 DEC 2024	ISSUED FOR COORDINATION
2	24 SEPT 2024	ISSUED FOR CLIENT REVIEW AND COORDINATION
1	17 SEPT 2024	ISSUED FOR SCHEMATIC DESIGN APPROVAL

PROJECT

ÉCOLE ÉLÉMENTAIRE LEITRIM

DRAWING TITLE

ARCHITECTURAL SITE PLAN

DRAWING NO. **A101**

PRINT DATE: 2025-02-06 3:04:34 PM

ARCH E (36" x 48") (914mm x 1219mm)

Appendix C

TRANS O-D SURVEY

South Gloucester / Leitrim

Demographic Characteristics

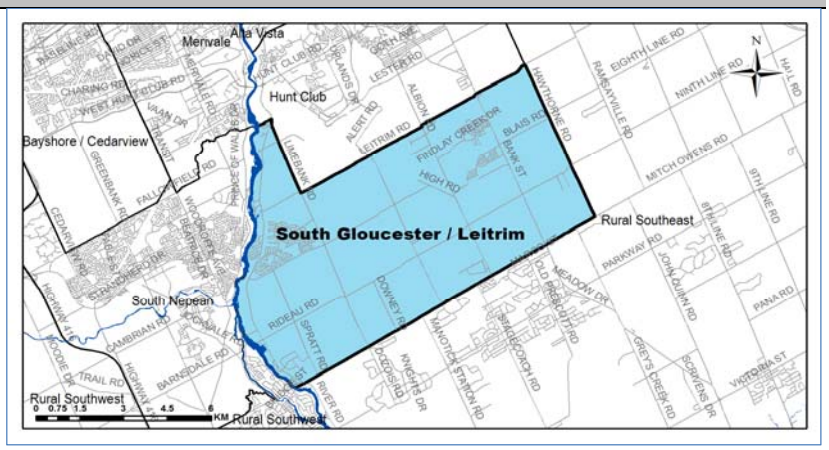
Population	17,600	Actively Travelled	14,190
Employed Population	8,910	Number of Vehicles	11,080
Households	6,240	Area (km^2)	78.9

Occupation

Status (age 5+)	Male	Female	Total
Full Time Employed	4,550	3,630	8,180
Part Time Employed	130	590	730
Student	2,160	2,130	4,290
Retiree	720	770	1,490
Unemployed	90	220	320
Homemaker	20	540	560
Other	80	120	200
Total:	7,750	8,010	15,760

Traveller Characteristics	Male	Female	Total
Transit Pass Holders	790	1,070	1,850
Licensed Drivers	5,790	5,940	11,730
Telecommuters	60	10	70
Trips made by residents	20,810	24,430	45,240

Selected Indicators	
Daily Trips per Person (age 5+)	2.87
Vehicles per Person	0.63
Number of Persons per Household	2.82
Daily Trips per Household	7.25
Vehicles per Household	1.78
Workers per Household	1.43
Population Density (Pop/km2)	220

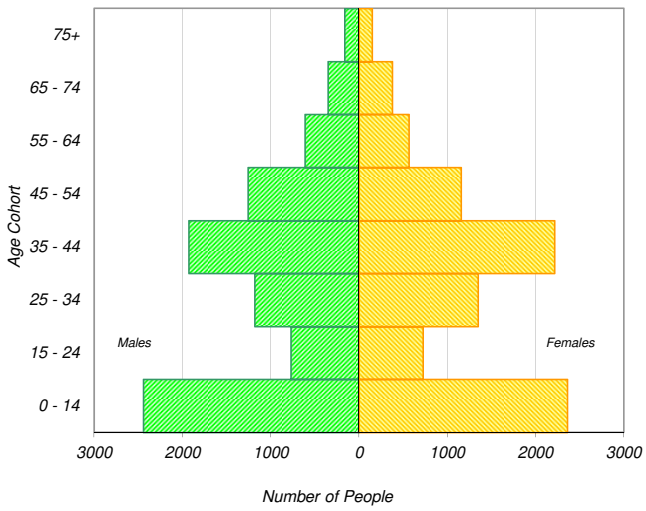


Household Size		
1 person	880	14%
2 persons	1,870	30%
3 persons	1,170	19%
4 persons	1,630	26%
5+ persons	690	11%
Total:	6,240	100%

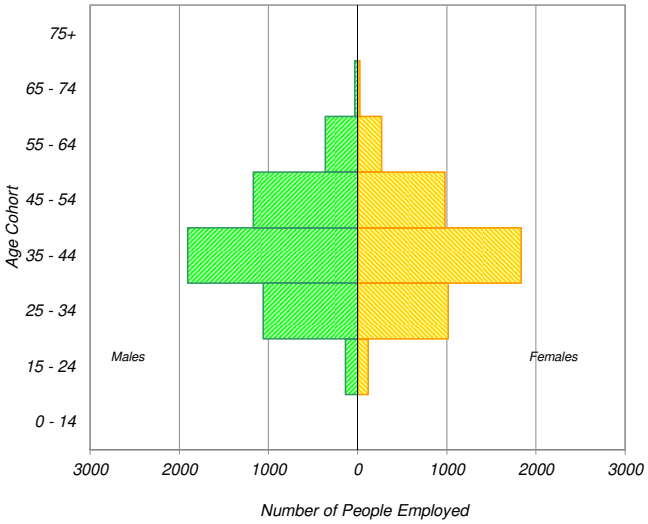
Households by Vehicle Availability		
0 vehicles	40	1%
1 vehicle	2,080	33%
2 vehicles	3,510	56%
3 vehicles	510	8%
4+ vehicles	100	2%
Total:	6,240	100%

Households by Dwelling Type		
Single-detached	3,300	53%
Semi-detached	770	12%
Townhouse	2,010	32%
Apartment/Condo	150	2%
Total:	6,240	100%

Population



Employed Population

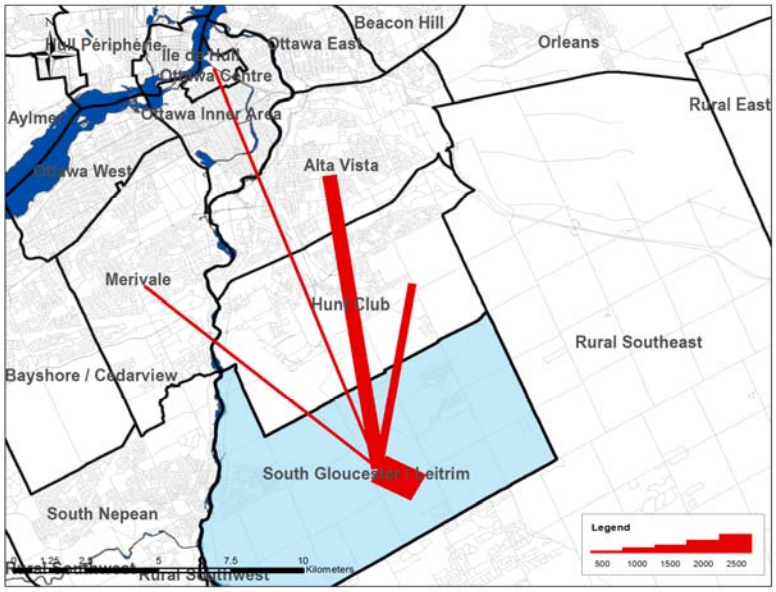


* In 2005 data was only collected for household members aged 11+ therefore these results cannot be compared to the 2011 data.

Travel Patterns

Top Five Destinations of Trips from South Gloucester / Leitrim

AM Peak Period



Summary of Trips to and from South Gloucester / Leitrim

AM Peak Period (6:30 - 8:59)	Destinations of Trips From District	% Total	Origins of Trips To District	% Total
Districts				
Ottawa Centre	930	9%	0	0%
Ottawa Inner Area	530	5%	250	4%
Ottawa East	240	2%	40	1%
Beacon Hill	240	2%	30	0%
Alta Vista	1,970	18%	160	2%
Hunt Club	1,100	10%	870	13%
Merivale	770	7%	340	5%
Ottawa West	290	3%	0	0%
Bayshore / Cedarview	170	2%	70	1%
Orléans	50	0%	170	3%
Rural East	0	0%	10	0%
Rural Southeast	210	2%	570	8%
South Gloucester / Leitrim	3,680	34%	3,680	55%
South Nepean	310	3%	100	1%
Rural Southwest	120	1%	220	3%
Kanata / Stittsvile	140	1%	60	1%
Rural West	40	0%	60	1%
Île de Hull	90	1%	0	0%
Hull Périphérie	10	0%	20	0%
Plateau	0	0%	20	0%
Aylmer	0	0%	0	0%
Rural Northwest	20	0%	10	0%
Pointe Gatineau	10	0%	30	0%
Gatineau Est	0	0%	0	0%
Rural Northeast	20	0%	0	0%
Buckingham / Masson-Angers	0	0%	20	0%
Ontario Sub-Total:	10,790	99%	6,630	99%
Québec Sub-Total:	150	1%	100	1%
Total:	10,940	100%	6,730	100%

Trips by Trip Purpose

24 Hours	From District		To District		Within District	
Work or related	6,300	29%	3,270	15%	700	6%
School	1,640	8%	840	4%	1,930	16%
Shopping	1,830	8%	720	3%	700	6%
Leisure	2,730	13%	1,990	9%	660	6%
Medical	440	2%	120	1%	120	1%
Pick-up / drive passenger	1,610	7%	970	4%	1,720	14%
Return Home	6,020	28%	13,110	60%	5,320	44%
Other	1,160	5%	680	3%	850	7%
Total:	21,730	100%	21,700	100%	12,000	100%

AM Peak (06:30 - 08:59)	From District		To District		Within District	
Work or related	4,650	64%	1,740	57%	420	11%
School	1,310	18%	810	27%	1,580	43%
Shopping	60	1%	40	1%	10	0%
Leisure	140	2%	50	2%	0	0%
Medical	80	1%	0	0%	0	0%
Pick-up / drive passenger	780	11%	180	6%	900	25%
Return Home	100	1%	120	4%	330	9%
Other	150	2%	110	4%	430	12%
Total:	7,270	100%	3,050	100%	3,670	100%

PM Peak (15:30 - 17:59)	From District		To District		Within District	
Work or related	140	3%	150	2%	40	1%
School	30	1%	0	0%	80	2%
Shopping	270	6%	170	2%	210	6%
Leisure	840	19%	420	6%	140	4%
Medical	50	1%	0	0%	30	1%
Pick-up / drive passenger	310	7%	360	5%	400	12%
Return Home	2,400	54%	5,990	82%	2,350	69%
Other	400	9%	200	3%	150	4%
Total:	4,440	100%	7,290	100%	3,400	100%

Peak Period (%)	Total:	% of 24 Hours	Within District (%)
24 Hours	55,430		22%
AM Peak Period	13,990	25%	26%
PM Peak Period	15,130	27%	22%

Trips by Primary Travel Mode

24 Hours	From District		To District		Within District	
Auto Driver	14,990	69%	14,970	69%	5,210	43%
Auto Passenger	3,870	18%	3,650	17%	3,120	26%
Transit	1,630	8%	1,740	8%	200	2%
Bicycle	90	0%	100	0%	20	0%
Walk	40	0%	40	0%	2,680	22%
Other	1,110	5%	1,200	6%	770	6%
Total:	21,730	100%	21,700	100%	12,000	100%

AM Peak (06:30 - 08:59)	From District		To District		Within District	
Auto Driver	4,640	64%	2,070	68%	1,540	42%
Auto Passenger	1,260	17%	210	7%	1,140	31%
Transit	860	12%	100	3%	60	2%
Bicycle	70	1%	20	1%	10	0%
Walk	20	0%	0	0%	620	17%
Other	420	6%	640	21%	300	8%
Total:	7,270	100%	3,040	100%	3,670	100%

PM Peak (15:30 - 17:59)	From District		To District		Within District	
Auto Driver	3,100	70%	4,920	67%	1,510	44%
Auto Passenger	1,020	23%	1,120	15%	860	25%
Transit	150	3%	790	11%	50	1%
Bicycle	20	0%	80	1%	0	0%
Walk	10	0%	0	0%	850	25%
Other	130	3%	390	5%	130	4%
Total:	4,430	100%	7,300	100%	3,400	100%

Avg Vehicle Occupancy	From District	To District	Within District
24 Hours	1.26	1.24	1.60
AM Peak Period	1.27	1.10	1.74
PM Peak Period	1.33	1.23	1.57

Transit Modal Split	From District	To District	Within District
24 Hours	8%	9%	2%
AM Peak Period	13%	4%	2%
PM Peak Period	4%	12%	2%

Appendix D

TRAFFIC COUNTS

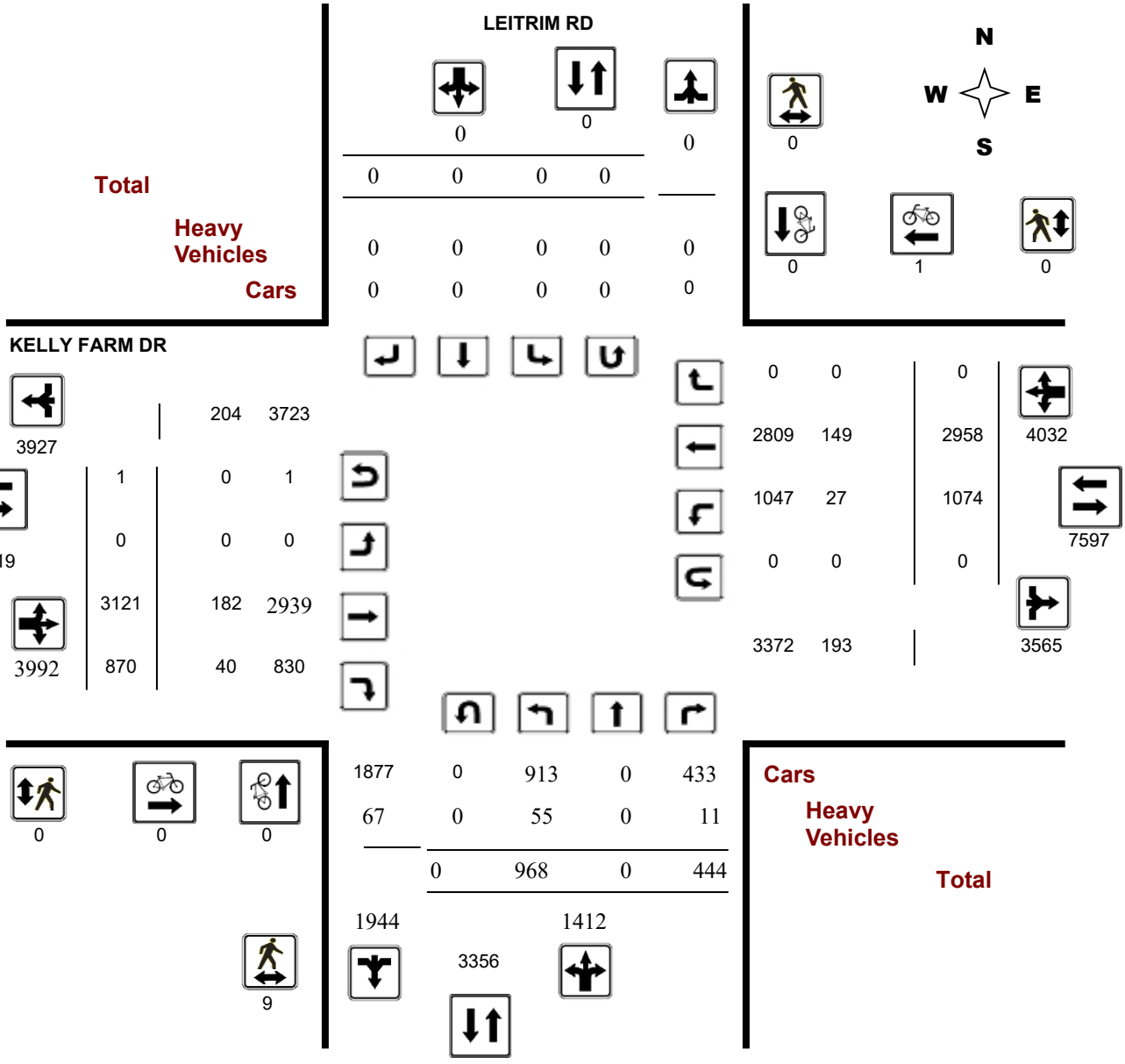
Transportation Services - Traffic Services

Turning Movement Count - Study Results

KELLY FARM DR @ LEITRIM RD

Survey Date: Wednesday, November 20, 2024
Start Time: 07:00
WO No: 42362
Device: Miovision

Full Study Diagram



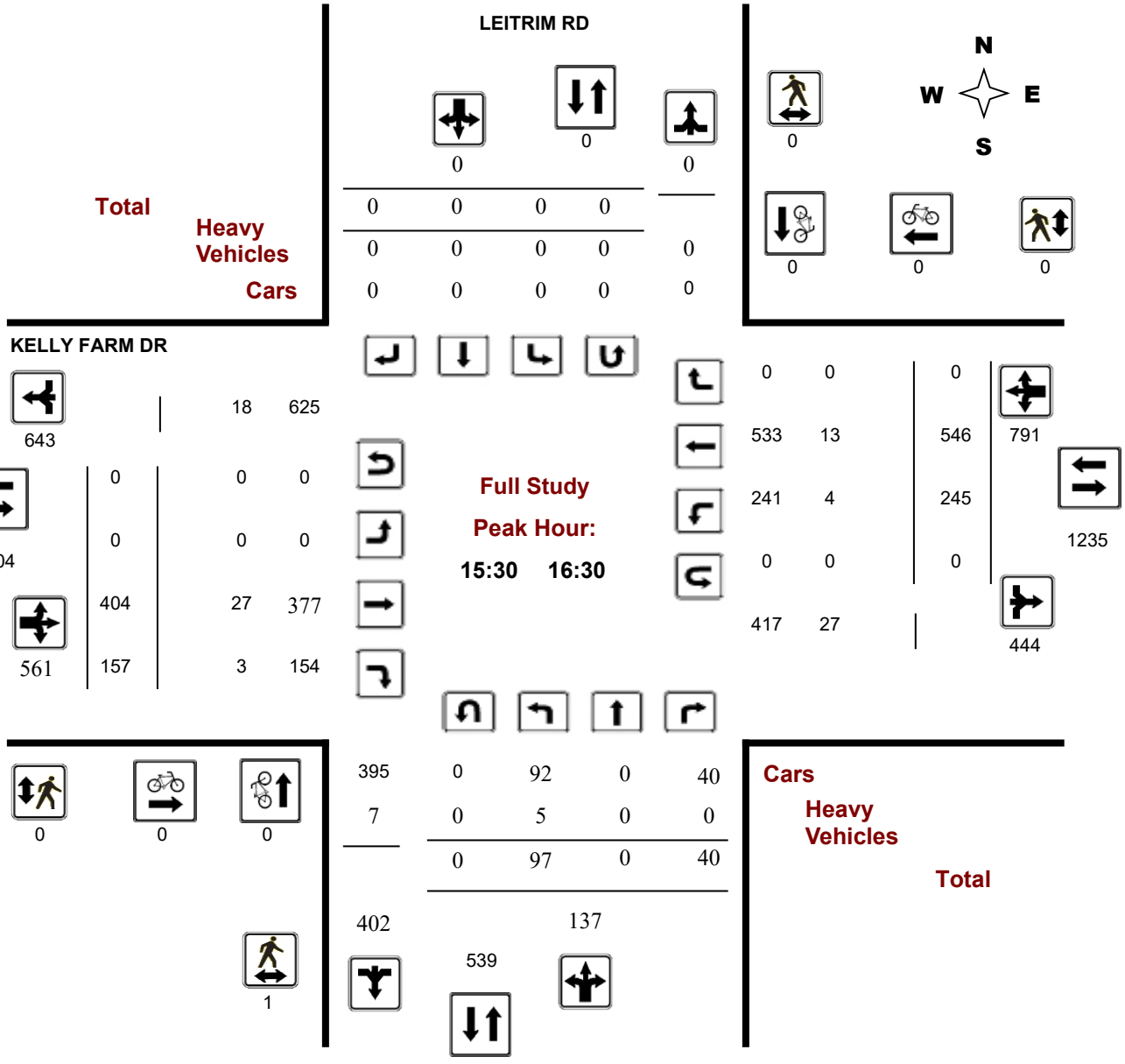
Transportation Services - Traffic Services

Turning Movement Count - Study Results

KELLY FARM DR @ LEITRIM RD

Survey Date: Wednesday, November 20, 2024
Start Time: 07:00
WO No: 42362
Device: Miovision

Full Study Peak Hour Diagram



Transportation Services - Traffic Services

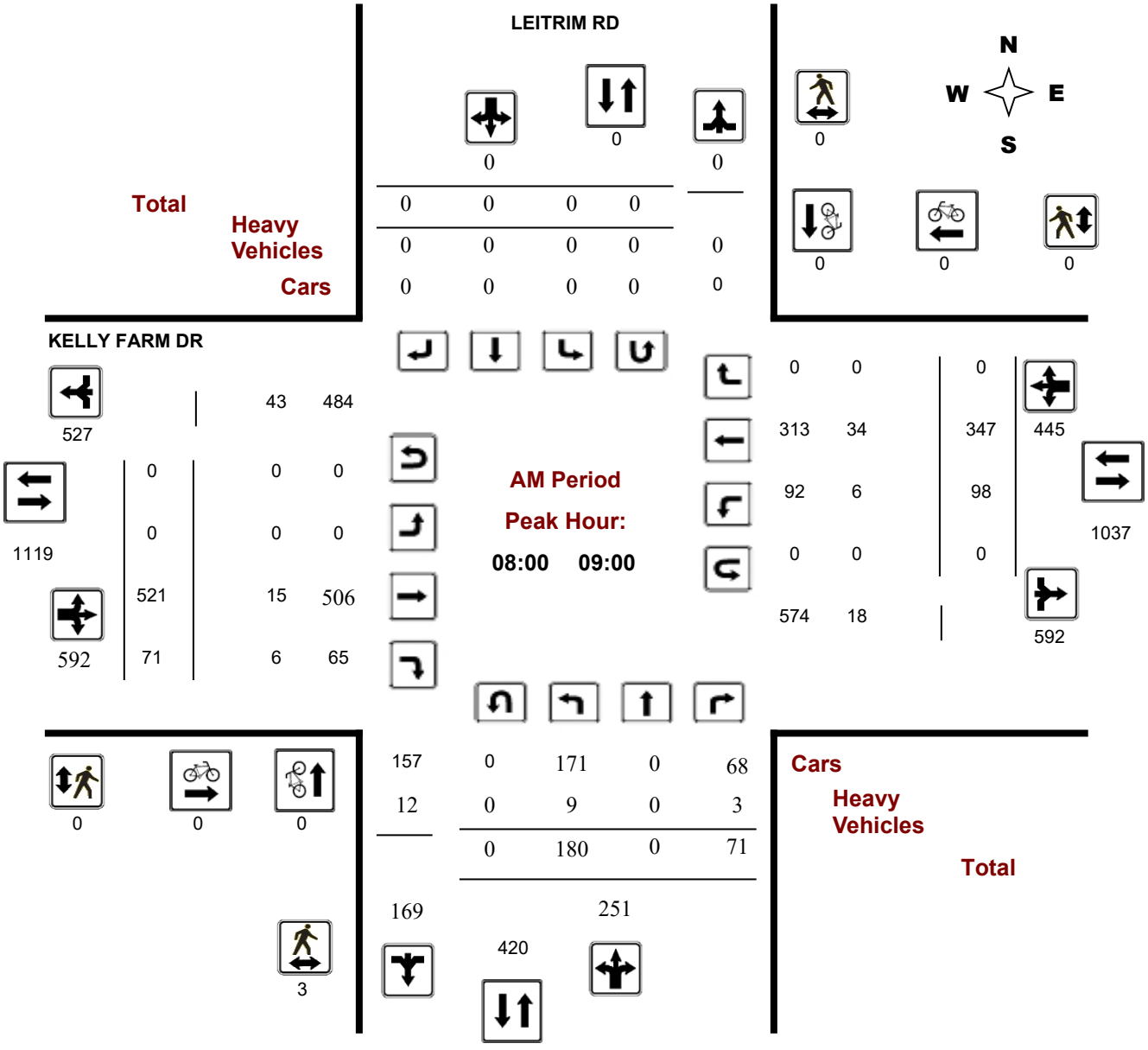
Turning Movement Count - Study Results

KELLY FARM DR @ LEITRIM RD

Survey Date: Wednesday, November 20, 2024 **WO No:** 42362

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

AM Period Peak Hour Diagram



Transportation Services - Traffic Services

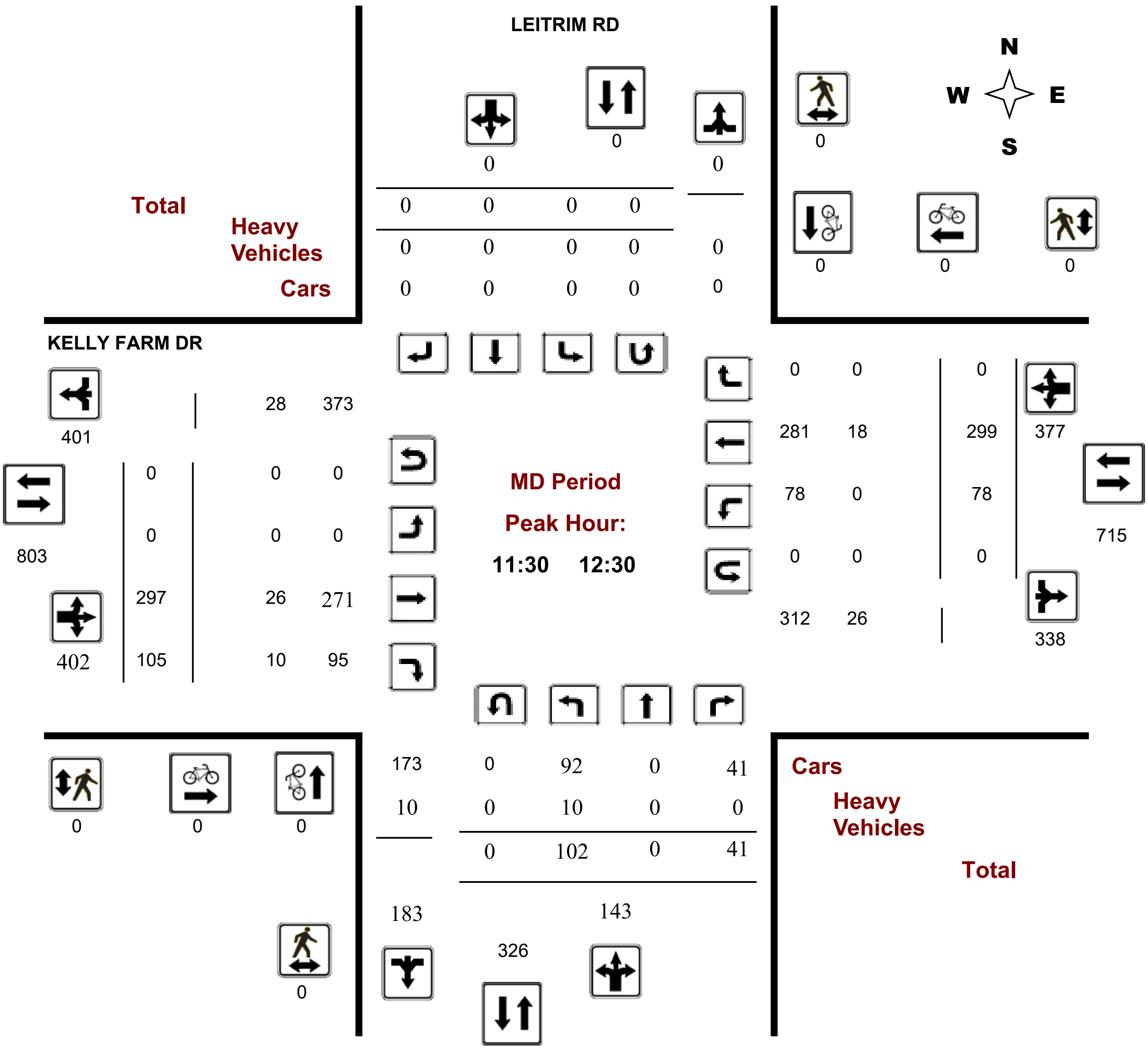
Turning Movement Count - Study Results

KELLY FARM DR @ LEITRIM RD

Survey Date: Wednesday, November 20, 2024 **WO No:** 42362

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

MD Period Peak Hour Diagram



Transportation Services - Traffic Services

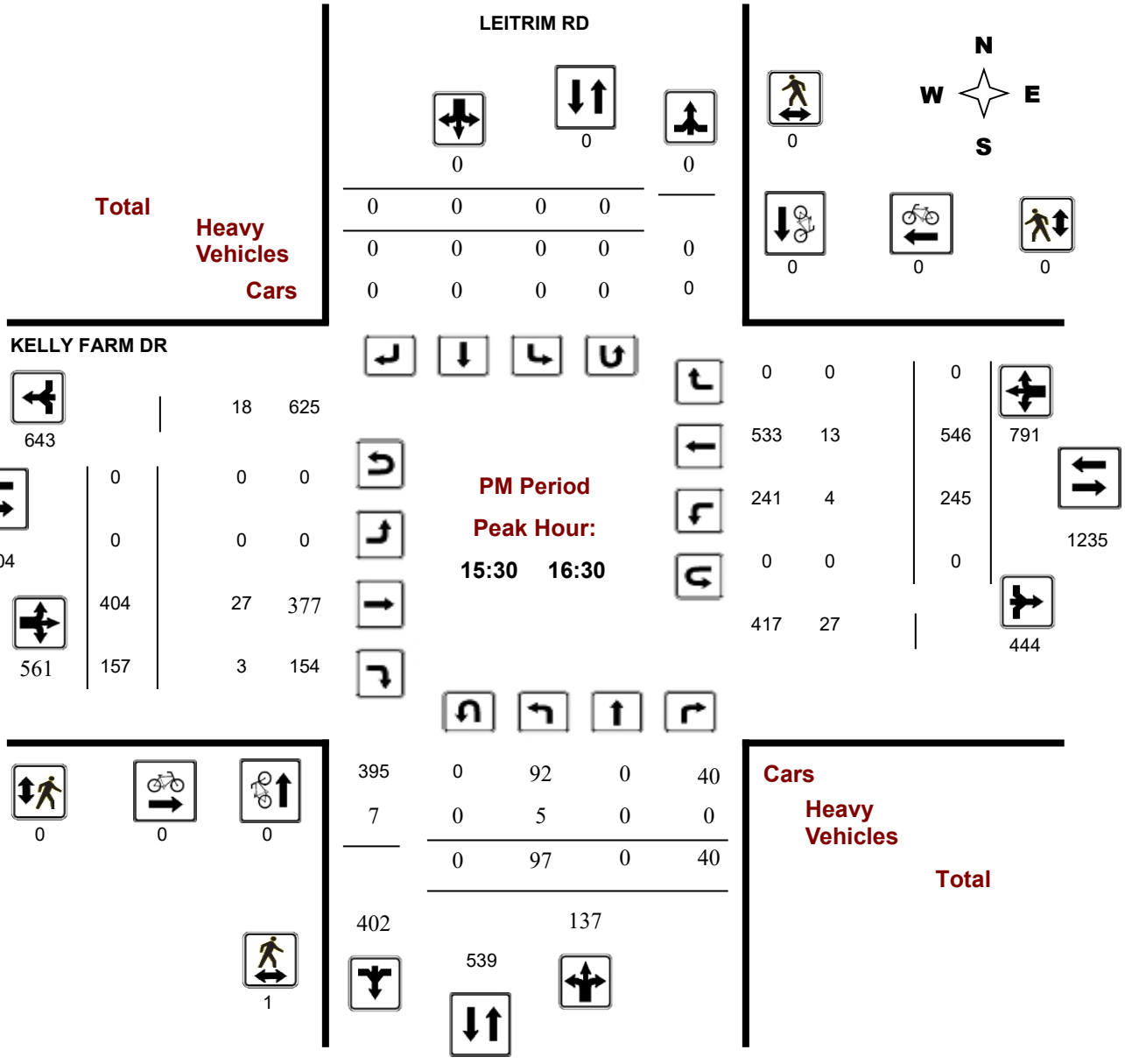
Turning Movement Count - Study Results

KELLY FARM DR @ LEITRIM RD

Survey Date: Wednesday, November 20, 2024 **WO No:** 42362

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

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

KELLY FARM DR @ LEITRIM RD

Survey Date: Wednesday, November 20, 2024 **WO No:** 42362

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

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, November 20, 2024

Total Observed U-Turns

Northbound: 0 Southbound: 0

Eastbound: 1 Westbound: 0

AADT Factor

.90

	LEITRIM RD								KELLY FARM DR									
	Northbound				Southbound				Eastbound				Westbound					
Period	LT	ST	RT	**NB TOT**	LT	ST	RT	**SB TOT**	**STR TOT**	LT	ST	RT	**EB TOT**	LT	ST	RT	**WB TOT**	**STR TOT**	**Grand Total**
07:00 08:00	202	0	96	**298**	0	0	0	**0**	**298**	0	495	57	**552**	72	310	0	**382**	**934**	**1232**
08:00 09:00	180	0	71	**251**	0	0	0	**0**	**251**	0	521	71	**592**	98	347	0	**445**	**1037**	**1288**
09:00 10:00	94	0	51	**145**	0	0	0	**0**	**145**	0	357	72	**429**	58	273	0	**331**	**760**	**905**
11:30 12:30	102	0	41	**143**	0	0	0	**0**	**143**	0	297	105	**402**	78	299	0	**377**	**779**	**922**
12:30 13:30	96	0	34	**130**	0	0	0	**0**	**130**	0	263	86	**349**	82	265	0	**347**	**696**	**826**
15:00 16:00	117	0	43	**160**	0	0	0	**0**	**160**	0	401	152	**553**	180	554	0	**734**	**1287**	**1447**
16:00 17:00	70	0	48	**118**	0	0	0	**0**	**118**	0	413	158	**571**	272	490	0	**762**	**1333**	**1451**
17:00 18:00	107	0	60	**167**	0	0	0	**0**	**167**	0	374	169	**543**	234	420	0	**654**	**1197**	**1364**
Sub Total	968	0	444	**1412**	0	0	0	**0**	**1412**	0	3121	870	**3991**	1074	2958	0	**4032**	**8023**	**9435**
U Turns				**0**				**0**	**0**				**1**				**0**	**1**	**1**
Total	968	0	444	**1412**	0	0	0	**0**	**1412**	0	3121	870	**3992**	1074	2958	0	**4032**	**8024**	**9436**
EQ 12Hr	1346	0	617	**1963**	0	0	0	**0**	**1963**	0	4338	1209	**5549**	1493	4112	0	**5604**	**11153**	**13116**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	1211	0	555	**1767**	0	0	0	**0**	**1767**	0	3904	1088	**4994**	1344	3701	0	**5044**	**10038**	**11804**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**.90**					
AVG 24Hr	1586	0	727	**2315**	0	0	0	**0**	**2315**	0	5114	1425	**6542**	1761	4848	0	**6608**	**13150**	**15463**
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

KELLY FARM DR @ LEITRIM RD

Survey Date: Wednesday, November 20, 2024 **WO No:** 42362

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

Full Study 15 Minute Increments

		LEITRIM RD									KELLY FARM 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	45	0	15	60	0	0	0	0	60	0	84	4	88	12	89	0	101	189	249
07:15	07:30	62	0	26	88	0	0	0	0	88	0	175	13	189	15	89	0	104	293	381
07:30	07:45	47	0	34	81	0	0	0	0	81	0	114	12	126	31	59	0	90	216	297
07:45	08:00	48	0	21	69	0	0	0	0	69	0	122	28	150	14	73	0	87	237	306
08:00	08:15	54	0	10	64	0	0	0	0	64	0	104	19	123	23	75	0	98	221	285
08:15	08:30	47	0	17	64	0	0	0	0	64	0	138	13	151	35	83	0	118	269	333
08:30	08:45	47	0	26	73	0	0	0	0	73	0	143	17	160	21	101	0	122	282	355
08:45	09:00	32	0	18	50	0	0	0	0	50	0	136	22	158	19	88	0	107	265	315
09:00	09:15	27	0	18	45	0	0	0	0	45	0	91	14	105	14	81	0	95	200	245
09:15	09:30	21	0	11	32	0	0	0	0	32	0	101	25	126	22	81	0	103	229	261
09:30	09:45	20	0	10	30	0	0	0	0	30	0	85	23	108	7	70	0	77	185	215
09:45	10:00	26	0	12	38	0	0	0	0	38	0	80	10	90	15	41	0	56	146	184
11:30	11:45	30	0	12	42	0	0	0	0	42	0	60	20	80	17	71	0	88	168	210
11:45	12:00	14	0	8	22	0	0	0	0	22	0	69	32	101	11	76	0	87	188	210
12:00	12:15	33	0	7	40	0	0	0	0	40	0	71	28	99	30	76	0	106	205	245
12:15	12:30	25	0	14	39	0	0	0	0	39	0	97	25	122	20	76	0	96	218	257
12:30	12:45	29	0	9	38	0	0	0	0	38	0	60	21	81	20	66	0	86	167	205
12:45	13:00	20	0	8	28	0	0	0	0	28	0	60	16	76	24	70	0	94	170	198
13:00	13:15	21	0	8	29	0	0	0	0	29	0	62	24	86	15	65	0	80	166	195
13:15	13:30	26	0	9	35	0	0	0	0	35	0	81	25	106	23	64	0	87	193	228
15:00	15:15	39	0	11	50	0	0	0	0	50	0	107	36	143	28	139	0	167	310	360
15:15	15:30	31	0	13	44	0	0	0	0	44	0	82	35	117	40	137	0	177	294	338
15:30	15:45	14	0	10	24	0	0	0	0	24	0	118	41	159	61	136	0	197	356	380
15:45	16:00	33	0	9	42	0	0	0	0	42	0	94	40	134	51	142	0	193	327	369
16:00	16:15	27	0	10	37	0	0	0	0	37	0	117	41	158	66	105	0	171	329	366
16:15	16:30	23	0	11	34	0	0	0	0	34	0	75	35	110	67	163	0	230	340	374
16:30	16:45	8	0	18	26	0	0	0	0	26	0	127	33	160	60	105	0	165	325	351
16:45	17:00	12	0	9	21	0	0	0	0	21	0	94	49	143	79	117	0	196	339	360
17:00	17:15	16	0	19	35	0	0	0	0	35	0	90	44	134	68	99	0	167	301	336
17:15	17:30	33	0	17	50	0	0	0	0	50	0	86	46	132	68	111	0	179	311	361
17:30	17:45	32	0	16	48	0	0	0	0	48	0	96	51	147	58	110	0	168	315	363
17:45	18:00	26	0	8	34	0	0	0	0	34	0	102	28	130	40	100	0	140	270	304
Total:		968	0	444	1412	0	0	0	0	1412	0	3121	870	3992	1074	2958	0	4032	8024	9,436

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

KELLY FARM DR @ LEITRIM RD

Survey Date: Wednesday, November 20, 2024 **WO No:** 42362

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

Full Study Cyclist Volume

Time Period		LEITRIM RD			KELLY FARM DR			
		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	0	0	0	0	0
07:15	07:30	0	0	0	0	0	0	0
07:30	07:45	0	0	0	0	0	0	0
07:45	08:00	0	0	0	0	0	0	0
08:00	08:15	0	0	0	0	0	0	0
08:15	08:30	0	0	0	0	0	0	0
08:30	08:45	0	0	0	0	0	0	0
08:45	09:00	0	0	0	0	0	0	0
09:00	09:15	0	0	0	0	0	0	0
09:15	09:30	0	0	0	0	0	0	0
09:30	09:45	0	0	0	0	0	0	0
09:45	10:00	0	0	0	0	0	0	0
11:30	11:45	0	0	0	0	0	0	0
11:45	12:00	0	0	0	0	0	0	0
12:00	12:15	0	0	0	0	0	0	0
12:15	12:30	0	0	0	0	0	0	0
12:30	12:45	0	0	0	0	0	0	0
12:45	13:00	0	0	0	0	0	0	0
13:00	13:15	0	0	0	0	0	0	0
13:15	13:30	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0
15:15	15:30	0	0	0	0	1	1	1
15:30	15:45	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0
16:00	16:15	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0
17:00	17:15	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	0	0
Total		0	0	**0**	0	1	1	1

Transportation Services - Traffic Services

Turning Movement Count - Study Results

KELLY FARM DR @ LEITRIM RD

Survey Date: Wednesday, November 20, 2024 **WO No:** 42362

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

Full Study Pedestrian Volume

	LEITRIM RD			KELLY FARM DR			
Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	**Total**	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	**Total**	**Grand Total**
07:00 07:15	0	0	**0**	0	0	**0**	**0**
07:15 07:30	2	0	**2**	0	0	**0**	**2**
07:30 07:45	1	0	**1**	0	0	**0**	**1**
07:45 08:00	1	0	**1**	0	0	**0**	**1**
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	1	0	**1**	0	0	**0**	**1**
08:45 09:00	1	0	**1**	0	0	**0**	**1**
09:00 09:15	0	0	**0**	0	0	**0**	**0**
09:15 09:30	0	0	**0**	0	0	**0**	**0**
09:30 09:45	0	0	**0**	0	0	**0**	**0**
09:45 10:00	0	0	**0**	0	0	**0**	**0**
11:30 11:45	0	0	**0**	0	0	**0**	**0**
11:45 12:00	0	0	**0**	0	0	**0**	**0**
12:00 12:15	0	0	**0**	0	0	**0**	**0**
12:15 12:30	0	0	**0**	0	0	**0**	**0**
12:30 12:45	0	0	**0**	0	0	**0**	**0**
12:45 13:00	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**
15:30 15:45	1	0	**1**	0	0	**0**	**1**
15:45 16:00	0	0	**0**	0	0	**0**	**0**
16:00 16:15	0	0	**0**	0	0	**0**	**0**
16:15 16:30	0	0	**0**	0	0	**0**	**0**
16:30 16:45	0	0	**0**	0	0	**0**	**0**
16:45 17:00	0	0	**0**	0	0	**0**	**0**
17:00 17:15	0	0	**0**	0	0	**0**	**0**
17:15 17:30	0	0	**0**	0	0	**0**	**0**
17:30 17:45	0	0	**0**	0	0	**0**	**0**
17:45 18:00	0	0	**0**	0	0	**0**	**0**
Total	9	0	**9**	0	0	**0**	**9**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

KELLY FARM DR @ LEITRIM RD

Survey Date: Wednesday, November 20, 2024 **WO No:** 42362

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

Full Study Heavy Vehicles

		LEITRIM RD												KELLY FARM 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	0	1	**2**	0	0	0	**0**	**2**	0	3	0	**3**	2	6	0	**8**	**11**	**13**
07:15	07:30	8	0	0	**8**	0	0	0	**0**	**8**	0	6	1	**7**	3	11	0	**14**	**21**	**29**
07:30	07:45	1	0	2	**3**	0	0	0	**0**	**3**	0	8	0	**8**	2	1	0	**3**	**11**	**14**
07:45	08:00	0	0	1	**1**	0	0	0	**0**	**1**	0	12	1	**13**	1	5	0	**6**	**19**	**20**
08:00	08:15	6	0	1	**7**	0	0	0	**0**	**7**	0	4	2	**6**	0	4	0	**4**	**10**	**17**
08:15	08:30	0	0	0	**0**	0	0	0	**0**	**0**	0	3	0	**3**	4	11	0	**15**	**18**	**18**
08:30	08:45	2	0	2	**4**	0	0	0	**0**	**4**	0	1	2	**3**	1	9	0	**10**	**13**	**17**
08:45	09:00	1	0	0	**1**	0	0	0	**0**	**1**	0	7	2	**9**	1	10	0	**11**	**20**	**21**
09:00	09:15	2	0	1	**3**	0	0	0	**0**	**3**	0	11	0	**11**	0	4	0	**4**	**15**	**18**
09:15	09:30	0	0	0	**0**	0	0	0	**0**	**0**	0	3	0	**3**	1	1	0	**2**	**5**	**5**
09:30	09:45	0	0	0	**0**	0	0	0	**0**	**0**	0	7	4	**11**	1	8	0	**9**	**20**	**20**
09:45	10:00	5	0	0	**5**	0	0	0	**0**	**5**	0	6	1	**7**	1	4	0	**5**	**12**	**17**
11:30	11:45	4	0	0	**4**	0	0	0	**0**	**4**	0	5	1	**6**	0	4	0	**4**	**10**	**14**
11:45	12:00	0	0	0	**0**	0	0	0	**0**	**0**	0	9	1	**10**	0	3	0	**3**	**13**	**13**
12:00	12:15	3	0	0	**3**	0	0	0	**0**	**3**	0	7	5	**12**	0	8	0	**8**	**20**	**23**
12:15	12:30	3	0	0	**3**	0	0	0	**0**	**3**	0	5	3	**8**	0	3	0	**3**	**11**	**14**
12:30	12:45	0	0	0	**0**	0	0	0	**0**	**0**	0	4	2	**6**	0	7	0	**7**	**13**	**13**
12:45	13:00	2	0	0	**2**	0	0	0	**0**	**2**	0	4	2	**6**	2	3	0	**5**	**11**	**13**
13:00	13:15	4	0	0	**4**	0	0	0	**0**	**4**	0	6	5	**11**	1	7	0	**8**	**19**	**23**
13:15	13:30	3	0	0	**3**	0	0	0	**0**	**3**	0	6	3	**9**	1	5	0	**6**	**15**	**18**
15:00	15:15	1	0	0	**1**	0	0	0	**0**	**1**	0	4	1	**5**	0	3	0	**3**	**8**	**9**
15:15	15:30	2	0	2	**4**	0	0	0	**0**	**4**	0	5	0	**5**	0	6	0	**6**	**11**	**15**
15:30	15:45	1	0	0	**1**	0	0	0	**0**	**1**	0	8	0	**8**	0	3	0	**3**	**11**	**12**
15:45	16:00	0	0	0	**0**	0	0	0	**0**	**0**	0	5	1	**6**	0	2	0	**2**	**8**	**8**
16:00	16:15	2	0	0	**2**	0	0	0	**0**	**2**	0	9	2	**11**	2	3	0	**5**	**16**	**18**
16:15	16:30	2	0	0	**2**	0	0	0	**0**	**2**	0	5	0	**5**	2	5	0	**7**	**12**	**14**
16:30	16:45	0	0	1	**1**	0	0	0	**0**	**1**	0	7	0	**7**	1	6	0	**7**	**14**	**15**
16:45	17:00	1	0	0	**1**	0	0	0	**0**	**1**	0	5	1	**6**	0	1	0	**1**	**7**	**8**
17:00	17:15	0	0	0	**0**	0	0	0	**0**	**0**	0	6	0	**6**	0	1	0	**1**	**7**	**7**
17:15	17:30	0	0	0	**0**	0	0	0	**0**	**0**	0	5	0	**5**	1	2	0	**3**	**8**	**8**
17:30	17:45	1	0	0	**1**	0	0	0	**0**	**1**	0	2	0	**2**	0	1	0	**1**	**3**	**4**
17:45	18:00	0	0	0	**0**	0	0	0	**0**	**0**	0	4	0	**4**	0	2	0	**2**	**6**	**6**
Total:	None	55	0	11	**66**	0	0	0	**0**	**66**	0	182	40	**222**	27	149	0	**176**	**398**	**464**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

KELLY FARM DR @ LEITRIM RD

Survey Date: Wednesday, November 20, 2024 **WO No:** 42362

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

Full Study 15 Minute U-Turn Total

		LEITRIM RD		KELLY FARM 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	1	0	1
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
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	0	0	0
16:45	17:00	0	0	0	0	0
17:00	17:15	0	0	0	0	0
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		0	0	1	0	1

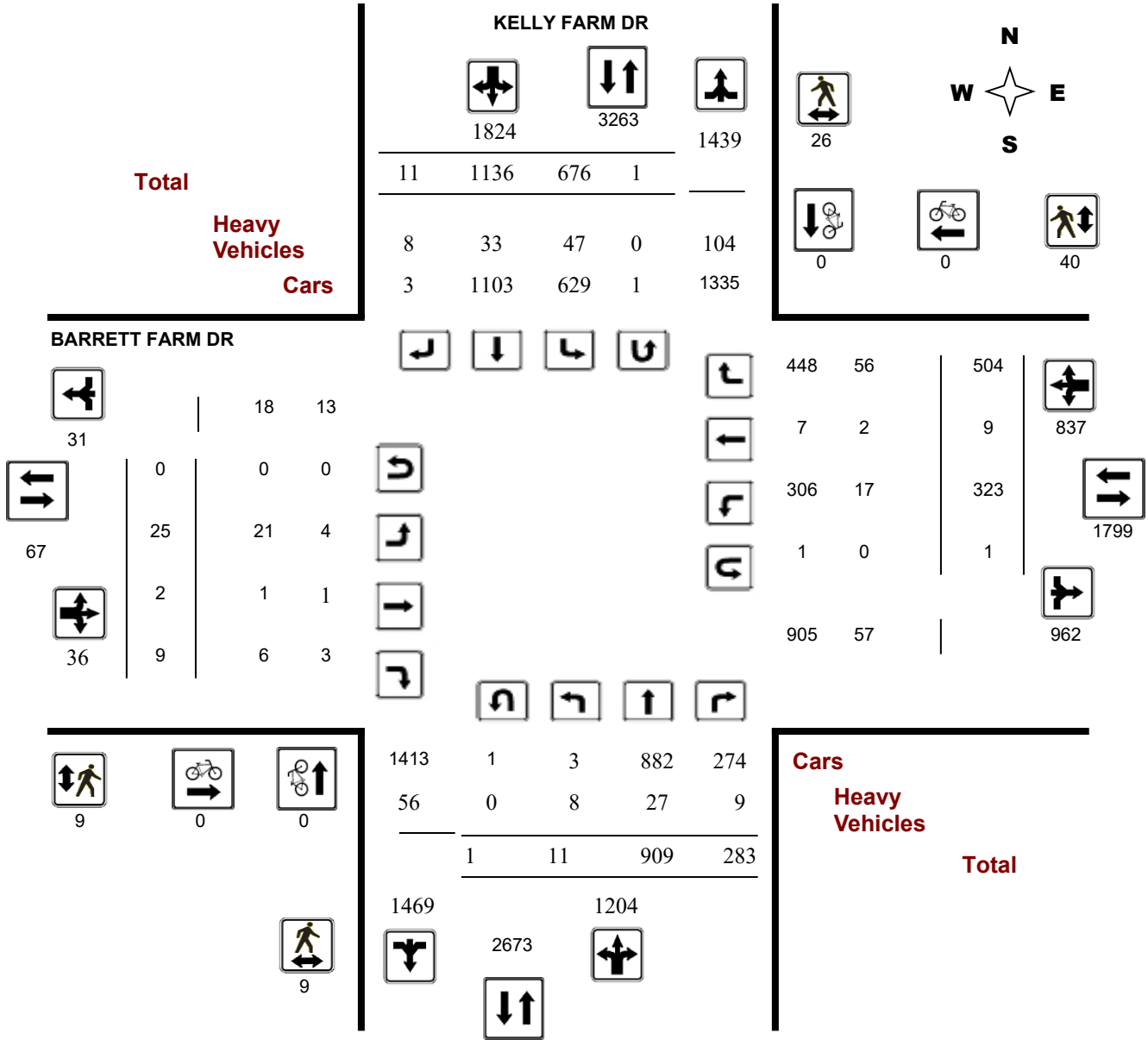
Transportation Services - Traffic Services

Turning Movement Count - Study Results

BARRETT FARM DR @ KELLY FARM DR

Survey Date: Wednesday, November 13, 2024
Start Time: 07:00
WO No: 42177
Device: Miovision

Full Study Diagram



Transportation Services - Traffic Services

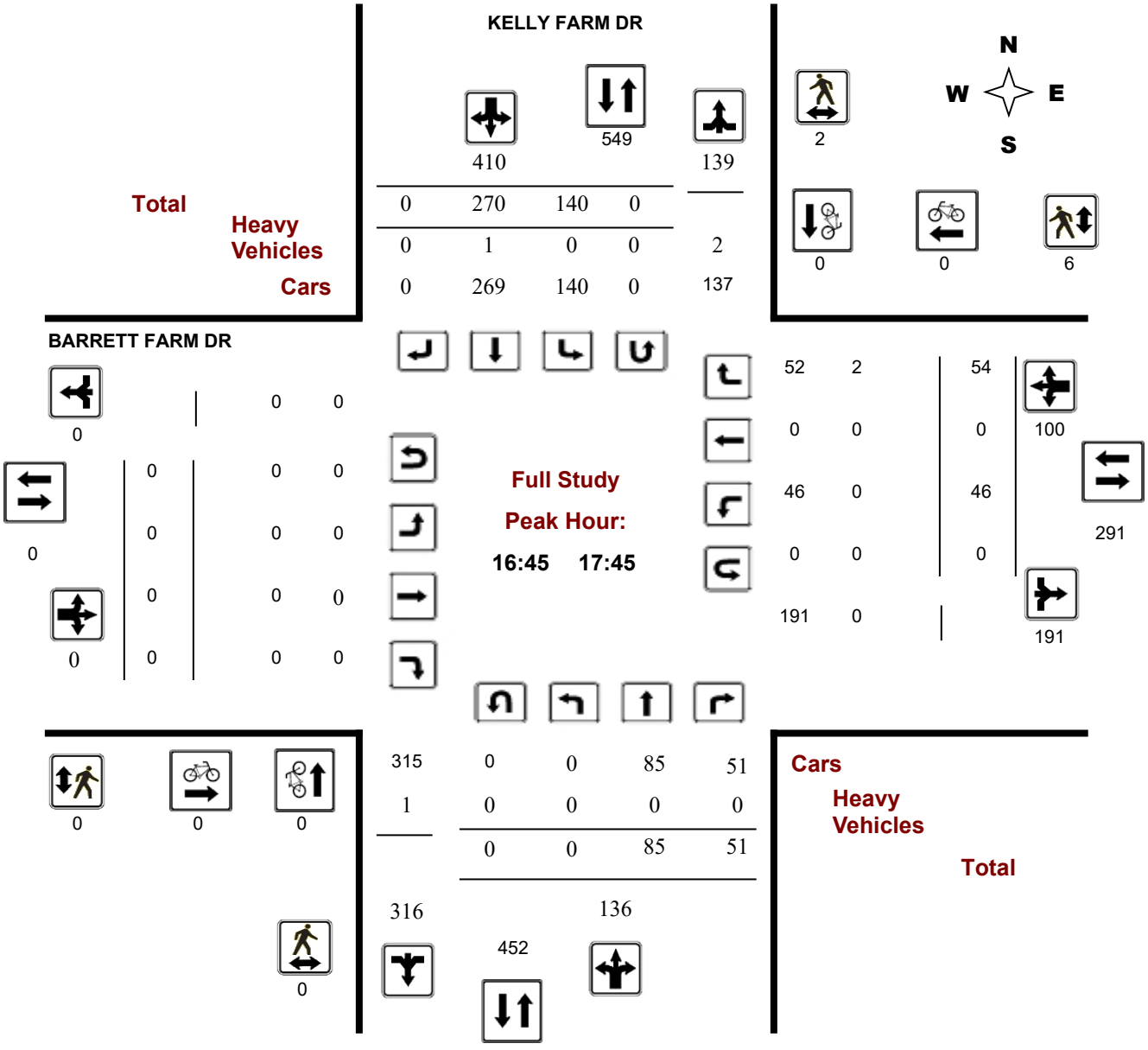
Turning Movement Count - Study Results

BARRETT FARM DR @ KELLY FARM DR

Survey Date: Wednesday, November 13, 2024 **WO No:** 42177

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

Full Study Peak Hour Diagram



Transportation Services - Traffic Services

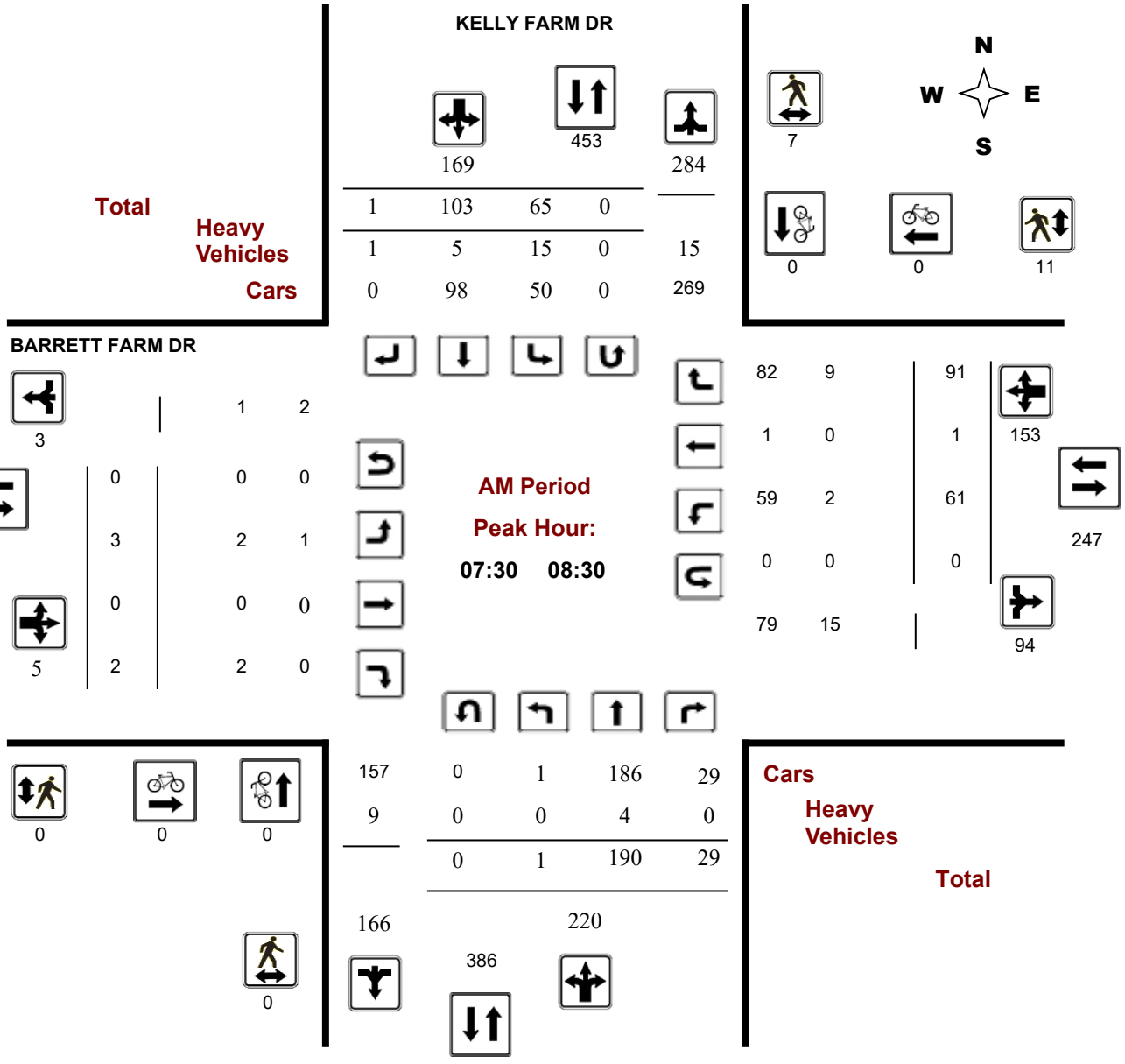
Turning Movement Count - Study Results

BARRETT FARM DR @ KELLY FARM DR

Survey Date: Wednesday, November 13, 2024 **WO No:** 42177

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

AM Period Peak Hour Diagram



Transportation Services - Traffic Services

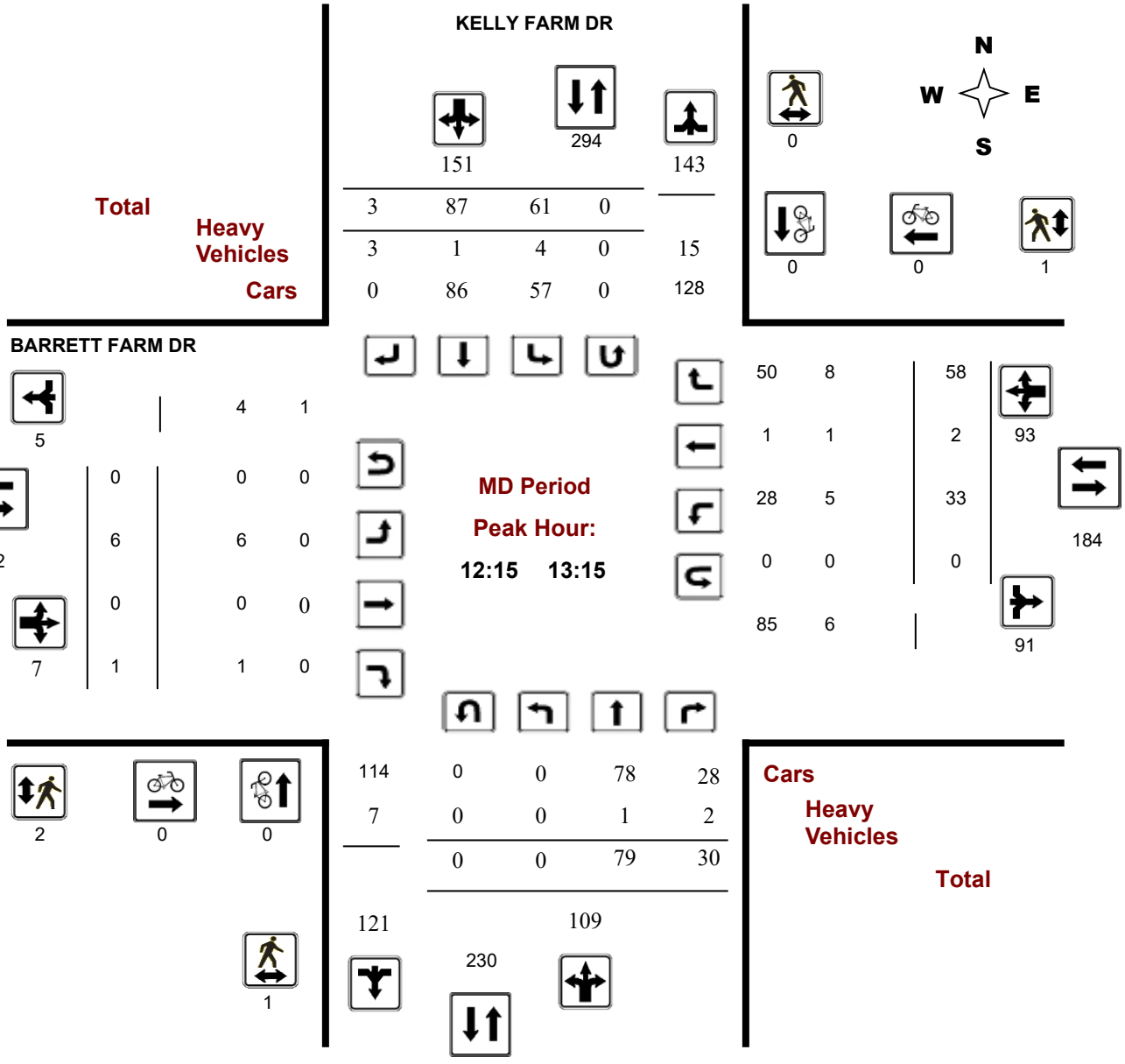
Turning Movement Count - Study Results

BARRETT FARM DR @ KELLY FARM DR

Survey Date: Wednesday, November 13, 2024 **WO No:** 42177

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

MD Period Peak Hour Diagram



Transportation Services - Traffic Services

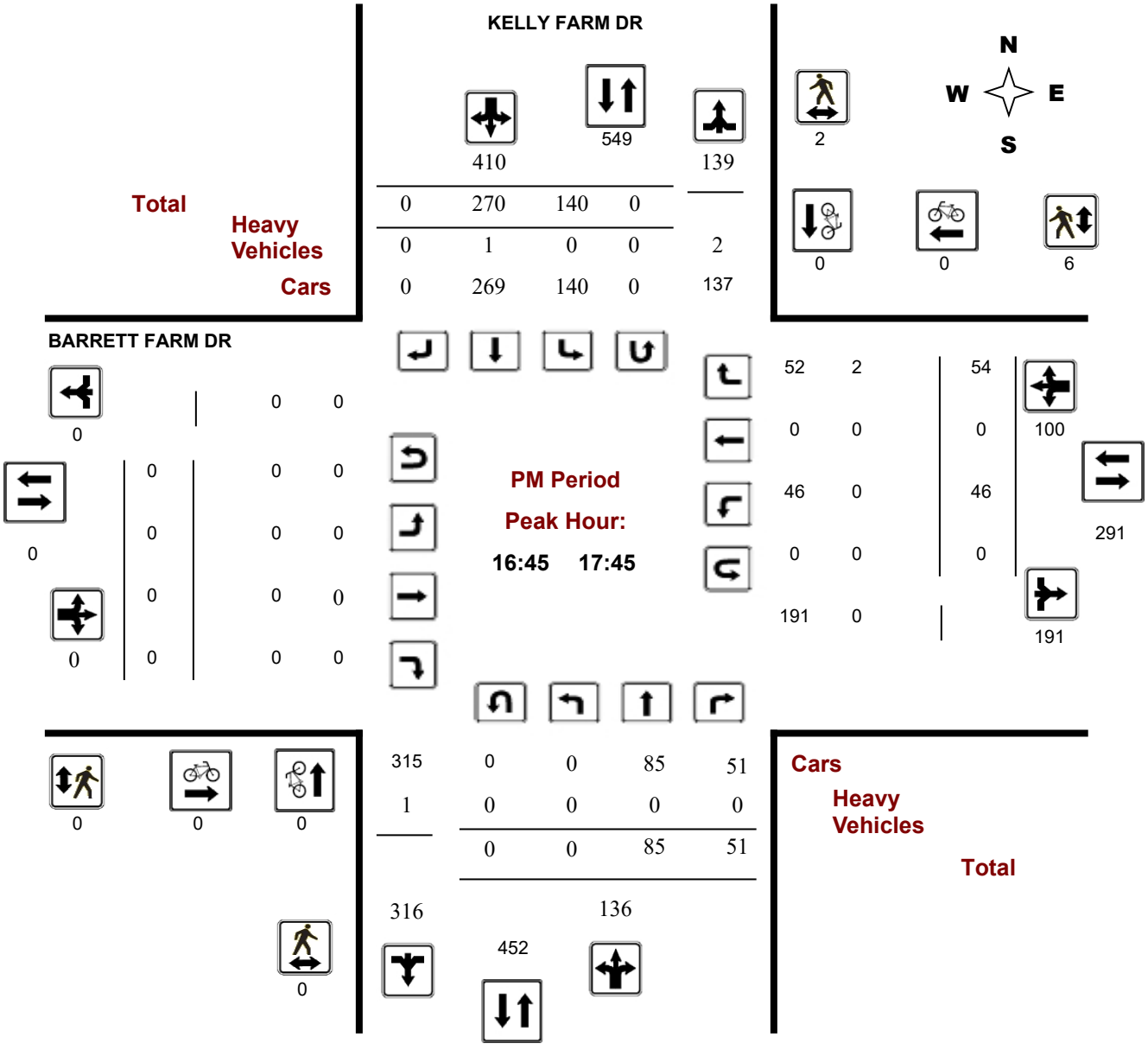
Turning Movement Count - Study Results

BARRETT FARM DR @ KELLY FARM DR

Survey Date: Wednesday, November 13, 2024 **WO No:** 42177

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

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BARRETT FARM DR @ KELLY FARM DR

Survey Date: Wednesday, November 13, 2024 **WO No:** 42177

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

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, November 13, 2024

Total Observed U-Turns

Northbound: 1 Southbound: 1

Eastbound: 0 Westbound: 1

AADT Factor

.90

	KELLY FARM DR									BARRETT FARM DR									
	Northbound				Southbound					Eastbound				Westbound					
Period	LT	ST	RT	**NB TOT**	LT	ST	RT	**SB TOT**	**STR TOT**	LT	ST	RT	**EB TOT**	LT	ST	RT	**WB TOT**	**STR TOT**	**Grand Total**
07:00 08:00	2	208	17	**227**	45	67	1	**113**	**340**	1	0	2	**3**	36	2	90	**128**	**131**	**471**
08:00 09:00	5	152	46	**203**	92	100	2	**194**	**397**	3	0	1	**4**	59	0	81	**140**	**144**	**541**
09:00 10:00	3	125	27	**155**	48	69	0	**117**	**272**	7	1	5	**13**	41	2	76	**119**	**132**	**404**
11:30 12:30	1	92	23	**116**	40	76	3	**119**	**235**	5	0	0	**5**	18	1	52	**71**	**76**	**311**
12:30 13:30	0	71	31	**102**	62	88	5	**155**	**257**	9	1	1	**11**	34	2	55	**91**	**102**	**359**
15:00 16:00	0	101	38	**139**	115	224	0	**339**	**478**	0	0	0	**0**	44	2	40	**86**	**86**	**564**
16:00 17:00	0	69	57	**126**	129	265	0	**394**	**520**	0	0	0	**0**	53	0	66	**119**	**119**	**639**
17:00 18:00	0	91	44	**135**	145	247	0	**392**	**527**	0	0	0	**0**	38	0	44	**82**	**82**	**609**
Sub Total	11	909	283	**1203**	676	1136	11	**1823**	**3026**	25	2	9	**36**	323	9	504	**836**	**872**	**3898**
U Turns				**1**				**1**	**2**				**0**				**1**	**1**	**3**
Total	11	909	283	**1204**	676	1136	11	**1824**	**3028**	25	2	9	**36**	323	9	504	**837**	**873**	**3901**
EQ 12Hr	15	1264	393	**1674**	940	1579	15	**2535**	**4209**	35	3	13	**50**	449	13	701	**1163**	**1213**	**5422**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	14	1138	354	**1507**	846	1862	18	**2282**	**3788**	32	3	12	**45**	404	12	631	**1047**	**1092**	**4880**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**.90**					
AVG 24Hr	18	1491	464	**1974**	1108	2439	24	**2989**	**4962**	42	4	16	**59**	529	16	827	**1372**	**1431**	**6393**
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

BARRETT FARM DR @ KELLY FARM DR

Survey Date: Wednesday, November 13, 2024 **WO No:** 42177

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

Full Study 15 Minute Increments

		KELLY FARM DR									BARRETT FARM 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
09:00	09:15	0	31	4	35	13	24	0	37	72	3	0	1	4	18	0	20	38	42	114
09:15	09:30	1	39	9	49	15	18	0	33	82	1	0	0	1	10	0	15	25	26	108
09:30	09:45	1	26	8	36	11	7	0	18	54	2	0	2	4	5	0	27	32	36	90
09:45	10:00	1	29	6	36	9	20	0	29	65	1	1	2	4	8	2	14	24	28	93
11:30	11:45	0	27	2	29	5	19	0	24	53	0	0	0	0	4	1	13	18	18	71
11:45	12:00	1	17	5	23	10	17	0	27	50	1	0	0	1	4	0	13	17	18	68
12:00	12:15	0	23	8	31	10	20	3	33	64	4	0	0	4	5	0	10	15	19	83
12:15	12:30	0	25	8	33	15	20	0	35	68	0	0	0	0	5	0	16	21	21	89
12:30	12:45	0	24	8	32	20	18	0	38	70	2	0	0	2	7	0	15	22	24	94
12:45	13:00	0	18	9	27	18	24	0	42	69	1	0	0	1	14	1	9	24	25	94
13:00	13:15	0	12	5	17	8	25	3	36	53	3	0	1	4	7	1	18	26	30	83
13:15	13:30	0	17	9	26	16	21	2	39	65	3	1	0	4	6	0	13	19	23	88
15:00	15:15	0	35	7	42	25	41	0	66	108	0	0	0	0	8	0	7	15	15	123
15:15	15:30	0	16	11	27	30	48	0	78	105	0	0	0	0	6	2	13	21	21	126
15:30	15:45	0	26	5	31	27	64	0	91	122	0	0	0	0	16	0	12	28	28	150
15:45	16:00	0	24	15	39	33	71	0	105	144	0	0	0	0	14	0	8	22	22	166
16:00	16:15	0	20	21	41	27	50	0	77	118	0	0	0	0	14	0	24	38	38	156
16:15	16:30	0	20	10	30	37	80	0	117	147	0	0	0	0	17	0	9	26	26	173
16:30	16:45	0	16	12	28	26	62	0	88	116	0	0	0	0	8	0	13	21	21	137
16:45	17:00	0	13	14	27	39	73	0	112	139	0	0	0	0	14	0	20	34	34	173
17:00	17:15	0	21	18	39	30	70	0	100	139	0	0	0	0	16	0	7	23	23	162
17:15	17:30	0	26	11	37	35	57	0	92	129	0	0	0	0	7	0	11	18	18	147
17:30	17:45	0	25	8	33	36	70	0	106	139	0	0	0	0	9	0	16	25	25	164
17:45	18:00	0	19	7	26	44	50	0	94	120	0	0	0	0	6	0	10	16	16	136
07:00	07:15	2	40	1	43	15	9	1	25	68	0	0	0	0	4	0	17	22	22	90
07:15	07:30	0	61	4	65	11	14	0	25	90	0	0	0	0	6	1	27	34	34	124
07:30	07:45	0	64	6	70	7	19	0	26	96	0	0	2	2	12	1	25	38	40	136
07:45	08:00	0	43	6	49	12	25	0	37	86	1	0	0	1	14	0	21	35	36	122
08:00	08:15	0	35	9	44	30	32	1	63	107	0	0	0	0	12	0	26	38	38	145
08:15	08:30	1	48	8	57	16	27	0	43	100	2	0	0	2	23	0	19	42	44	144
08:30	08:45	4	42	12	58	18	20	0	38	96	0	0	0	0	11	0	22	33	33	129
08:45	09:00	0	27	17	44	28	21	1	50	94	1	0	1	2	13	0	14	27	29	123
Total:		11	909	283	1204	676	1136	11	1824	3028	25	2	9	36	323	9	504	837	873	3,901

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BARRETT FARM DR @ KELLY FARM DR

Survey Date: Wednesday, November 13, 2024 **WO No:** 42177

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

Full Study Cyclist Volume

Time Period		KELLY FARM DR			BARRETT FARM DR			
		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
09:00	09:15	0	0	0	0	0	0	0
09:15	09:30	0	0	0	0	0	0	0
09:30	09:45	0	0	0	0	0	0	0
09:45	10:00	0	0	0	0	0	0	0
11:30	11:45	0	0	0	0	0	0	0
11:45	12:00	0	0	0	0	0	0	0
12:00	12:15	0	0	0	0	0	0	0
12:15	12:30	0	0	0	0	0	0	0
12:30	12:45	0	0	0	0	0	0	0
12:45	13:00	0	0	0	0	0	0	0
13:00	13:15	0	0	0	0	0	0	0
13:15	13:30	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0
15:15	15:30	0	0	0	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0
16:00	16:15	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0
17:00	17:15	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	0	0
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
Total		0	0	**0**	0	0	0	0

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BARRETT FARM DR @ KELLY FARM DR

Survey Date: Wednesday, November 13, 2024 **WO No:** 42177

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

Full Study Pedestrian Volume

	KELLY FARM DR			BARRETT FARM 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**
09:00 09:15	2	0	**2**	1	2	**3**	**5**
09:15 09:30	2	0	**2**	0	2	**2**	**4**
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**	2	0	**2**	**2**
11:45 12:00	0	0	**0**	0	1	**1**	**1**
12:00 12:15	0	0	**0**	1	0	**1**	**1**
12:15 12:30	0	0	**0**	0	0	**0**	**0**
12:30 12:45	0	0	**0**	0	1	**1**	**1**
12:45 13:00	0	0	**0**	2	0	**2**	**2**
13:00 13:15	1	0	**1**	0	0	**0**	**1**
13:15 13:30	1	0	**1**	0	0	**0**	**1**
15:00 15:15	1	0	**1**	0	0	**0**	**1**
15:15 15:30	1	0	**1**	0	2	**2**	**3**
15:30 15:45	0	0	**0**	0	0	**0**	**0**
15:45 16:00	1	0	**1**	0	0	**0**	**1**
16:00 16:15	0	13	**13**	0	4	**4**	**17**
16:15 16:30	0	0	**0**	0	1	**1**	**1**
16:30 16:45	0	4	**4**	1	3	**4**	**8**
16:45 17:00	0	0	**0**	0	4	**4**	**4**
17:00 17:15	0	2	**2**	0	1	**1**	**3**
17:15 17:30	0	0	**0**	0	1	**1**	**1**
17:30 17:45	0	0	**0**	0	0	**0**	**0**
17:45 18:00	0	0	**0**	0	2	**2**	**2**
07:00 07:15	0	0	**0**	0	1	**1**	**1**
07:15 07:30	0	0	**0**	0	2	**2**	**2**
07:30 07:45	0	0	**0**	0	4	**4**	**4**
07:45 08:00	0	0	**0**	0	1	**1**	**1**
08:00 08:15	0	2	**2**	0	2	**2**	**4**
08:15 08:30	0	5	**5**	0	4	**4**	**9**
08:30 08:45	0	0	**0**	1	1	**2**	**2**
08:45 09:00	0	0	**0**	1	1	**2**	**2**
Total	9	26	**35**	9	40	**49**	**84**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BARRETT FARM DR @ KELLY FARM DR

Survey Date: Wednesday, November 13, 2024 **WO No:** 42177

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

Full Study Heavy Vehicles

		KELLY FARM DR									BARRETT FARM 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**
09:00	09:15	0	2	0	**2**	1	4	0	**5**	**7**	2	0	0	**2**	1	0	6	**7**	**9**	**16**
09:15	09:30	1	1	0	**2**	2	1	0	**3**	**5**	1	0	0	**1**	1	0	1	**2**	**3**	**8**
09:30	09:45	1	2	0	**3**	1	0	0	**1**	**4**	2	0	0	**2**	0	0	4	**4**	**6**	**10**
09:45	10:00	1	0	0	**1**	0	5	0	**5**	**6**	1	1	2	**4**	1	1	2	**4**	**8**	**14**
11:30	11:45	0	0	1	**1**	0	1	0	**1**	**2**	0	0	0	**0**	0	0	1	**1**	**1**	**3**
11:45	12:00	0	0	0	**0**	2	0	0	**2**	**2**	1	0	0	**1**	1	0	3	**4**	**5**	**7**
12:00	12:15	0	0	0	**0**	0	0	2	**2**	**2**	3	0	0	**3**	0	0	2	**2**	**5**	**7**
12:15	12:30	0	0	0	**0**	2	0	0	**2**	**2**	0	0	0	**0**	2	0	2	**4**	**4**	**6**
12:30	12:45	0	0	0	**0**	0	1	0	**1**	**1**	2	0	0	**2**	0	0	1	**1**	**3**	**4**
12:45	13:00	0	1	2	**3**	1	0	0	**1**	**4**	1	0	0	**1**	1	1	3	**5**	**6**	**10**
13:00	13:15	0	0	0	**0**	1	0	3	**4**	**4**	3	0	1	**4**	2	0	2	**4**	**8**	**12**
13:15	13:30	0	0	1	**1**	3	2	1	**6**	**7**	2	0	0	**2**	0	0	2	**2**	**4**	**11**
15:00	15:15	0	0	0	**0**	0	1	0	**1**	**1**	0	0	0	**0**	0	0	2	**2**	**2**	**3**
15:15	15:30	0	0	1	**1**	0	0	0	**0**	**1**	0	0	0	**0**	1	0	1	**2**	**2**	**3**
15:30	15:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
15:45	16:00	0	1	1	**2**	0	1	0	**1**	**3**	0	0	0	**0**	1	0	0	**1**	**1**	**4**
16:00	16:15	0	1	0	**1**	0	4	0	**4**	**5**	0	0	0	**0**	0	0	1	**1**	**1**	**6**
16:15	16:30	0	1	1	**2**	2	0	0	**2**	**4**	0	0	0	**0**	0	0	0	**0**	**0**	**4**
16:30	16:45	0	1	0	**1**	0	2	0	**2**	**3**	0	0	0	**0**	0	0	0	**0**	**0**	**3**
16:45	17:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	1	**1**	**1**	**1**
17:00	17:15	0	0	0	**0**	0	1	0	**1**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
17:15	17:30	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
17:30	17:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	1	**1**	**1**	**1**
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	1	1	1	**3**	5	1	1	**7**	**10**	0	0	0	**0**	0	0	3	**3**	**3**	**13**
07:15	07:30	0	8	0	**8**	3	2	0	**5**	**13**	0	0	0	**0**	1	0	4	**5**	**5**	**18**
07:30	07:45	0	2	0	**2**	1	1	0	**2**	**4**	0	0	2	**2**	1	0	2	**3**	**5**	**9**
07:45	08:00	0	0	0	**0**	3	1	0	**4**	**4**	0	0	0	**0**	0	0	2	**2**	**2**	**6**
08:00	08:15	0	1	0	**1**	6	0	1	**7**	**8**	0	0	0	**0**	0	0	4	**4**	**4**	**12**
08:15	08:30	0	1	0	**1**	5	3	0	**8**	**9**	2	0	0	**2**	1	0	1	**2**	**4**	**13**
08:30	08:45	4	3	1	**8**	4	1	0	**5**	**13**	0	0	0	**0**	2	0	3	**5**	**5**	**18**
08:45	09:00	0	1	0	**1**	5	0	0	**5**	**6**	1	0	1	**2**	1	0	2	**3**	**5**	**11**
Total:	None	8	27	9	**44**	47	33	8	**88**	**132**	21	1	6	**28**	17	2	56	**75**	**103**	**235**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BARRETT FARM DR @ KELLY FARM DR

Survey Date: Wednesday, November 13, 2024 **WO No:** 42177

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

Full Study 15 Minute U-Turn Total

Time Period		KELLY FARM DR		BARRETT FARM DR		
		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
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
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	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	0	0	0	0
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
07:00	07:15	0	0	0	1	1
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
Total		1	1	0	1	3

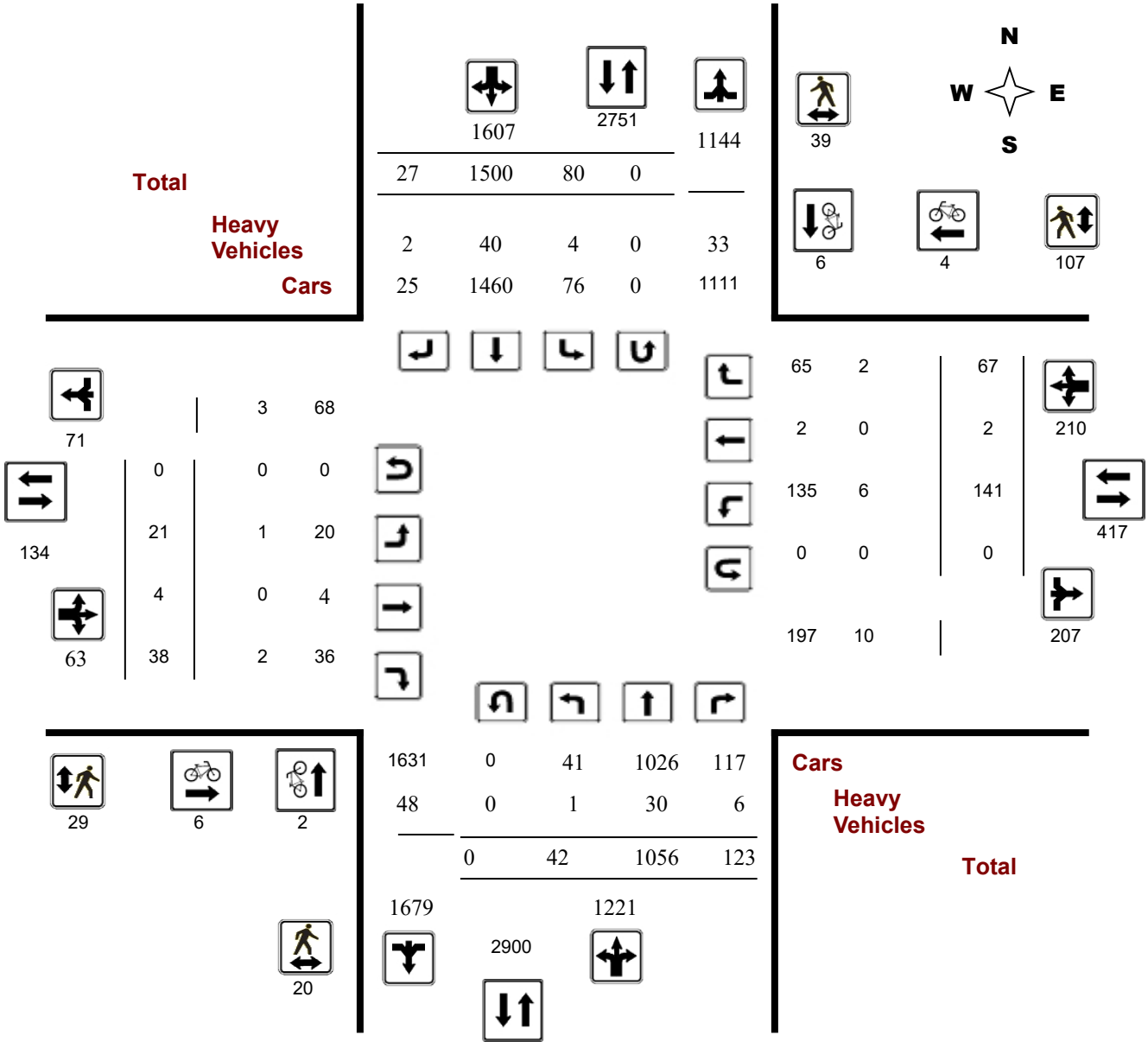
Transportation Services - Traffic Services

Turning Movement Count - Study Results

KELLY FARM DR @ TROLLIUS WAY

Survey Date: Wednesday, November 20, 2024
Start Time: 07:00
WO No: 42363
Device: Miovision

Full Study Diagram



Transportation Services - Traffic Services

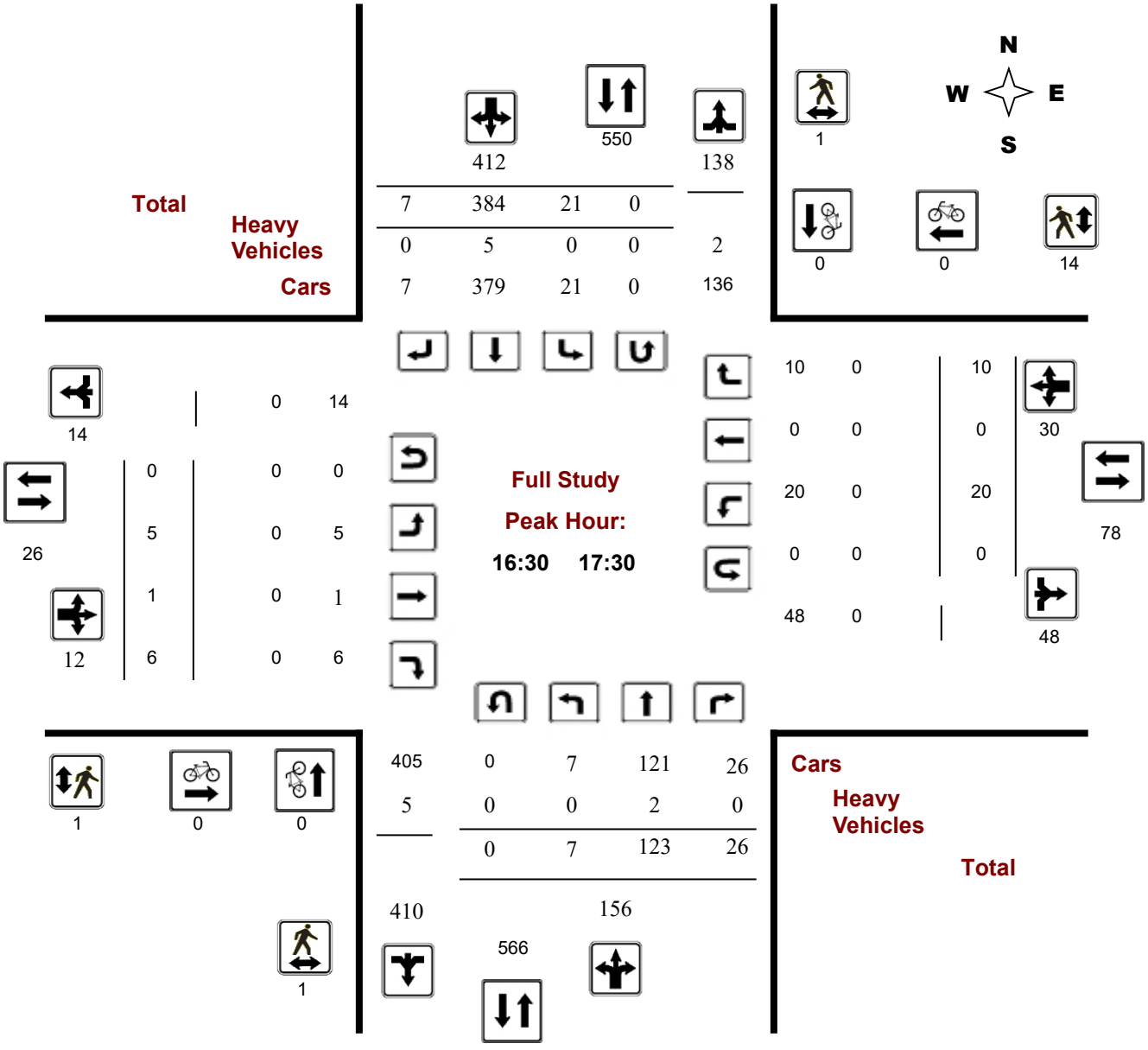
Turning Movement Count - Study Results

KELLY FARM DR @ TROLLIUS WAY

Survey Date: Wednesday, November 20, 2024 **WO No:** 42363

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

Full Study Peak Hour Diagram



Transportation Services - Traffic Services

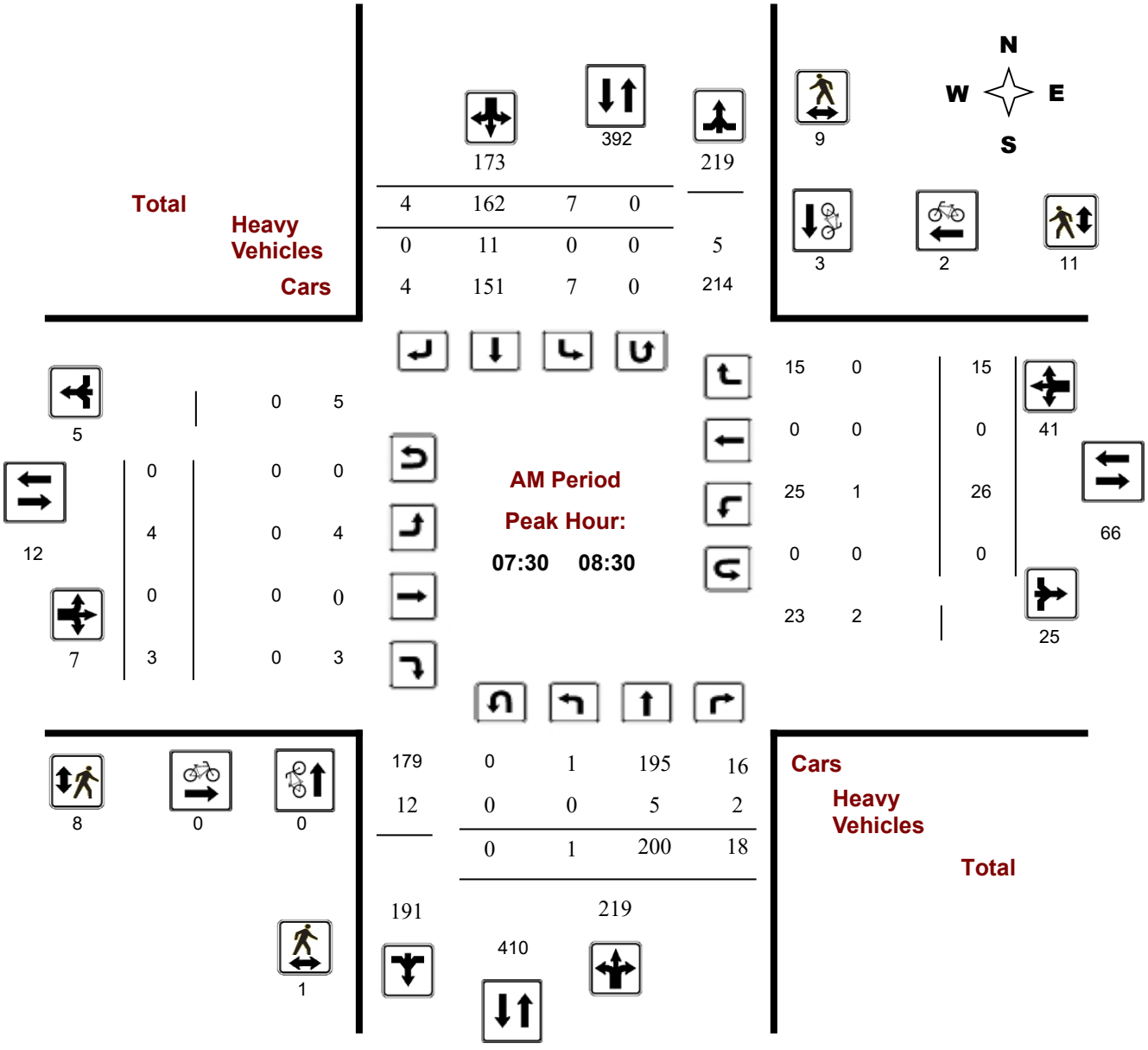
Turning Movement Count - Study Results

KELLY FARM DR @ TROLLIUS WAY

Survey Date: Wednesday, November 20, 2024 **WO No:** 42363

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

AM Period Peak Hour Diagram



Transportation Services - Traffic Services

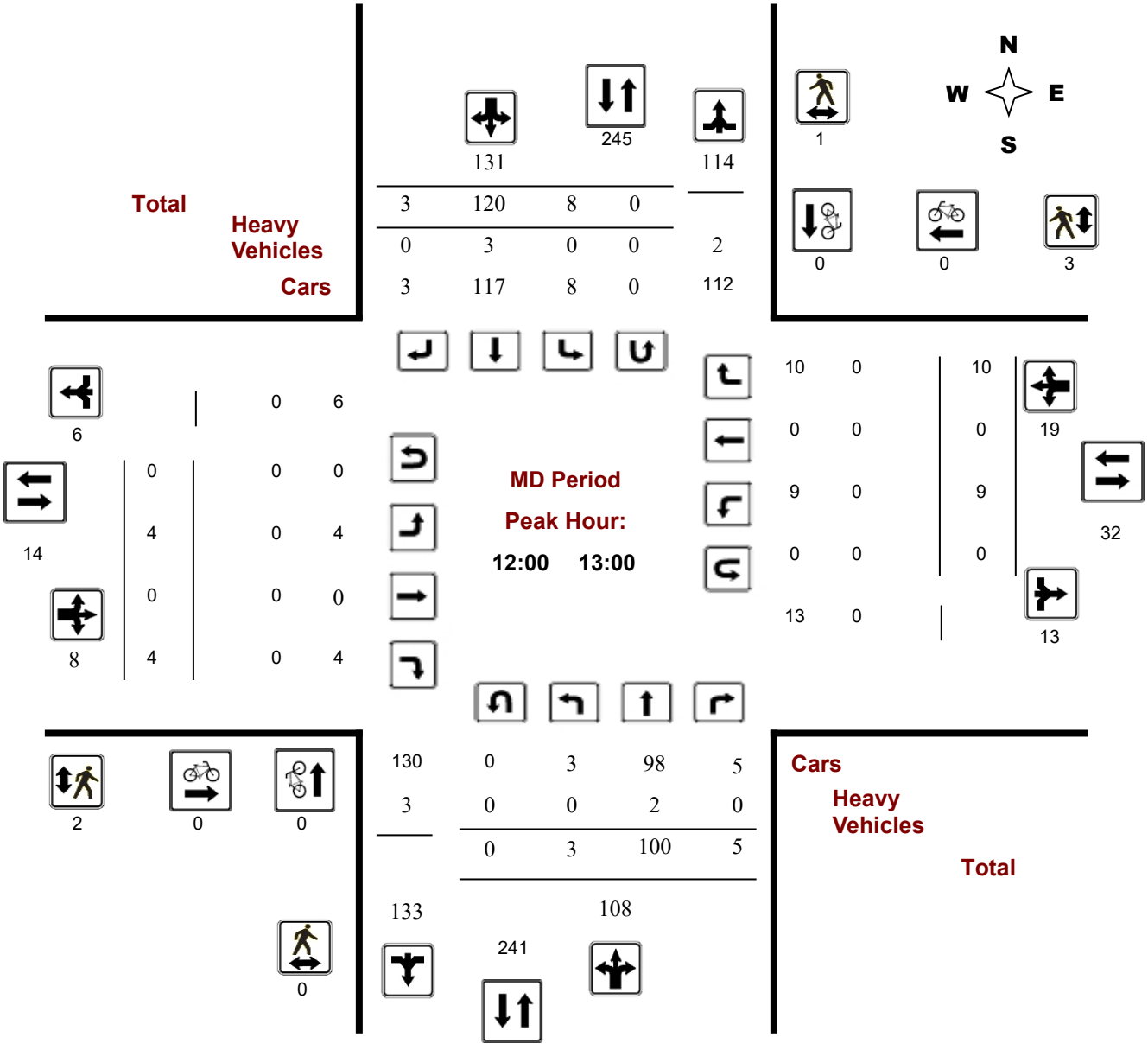
Turning Movement Count - Study Results

KELLY FARM DR @ TROLLIUS WAY

Survey Date: Wednesday, November 20, 2024 **WO No:** 42363

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

MD Period Peak Hour Diagram



Transportation Services - Traffic Services

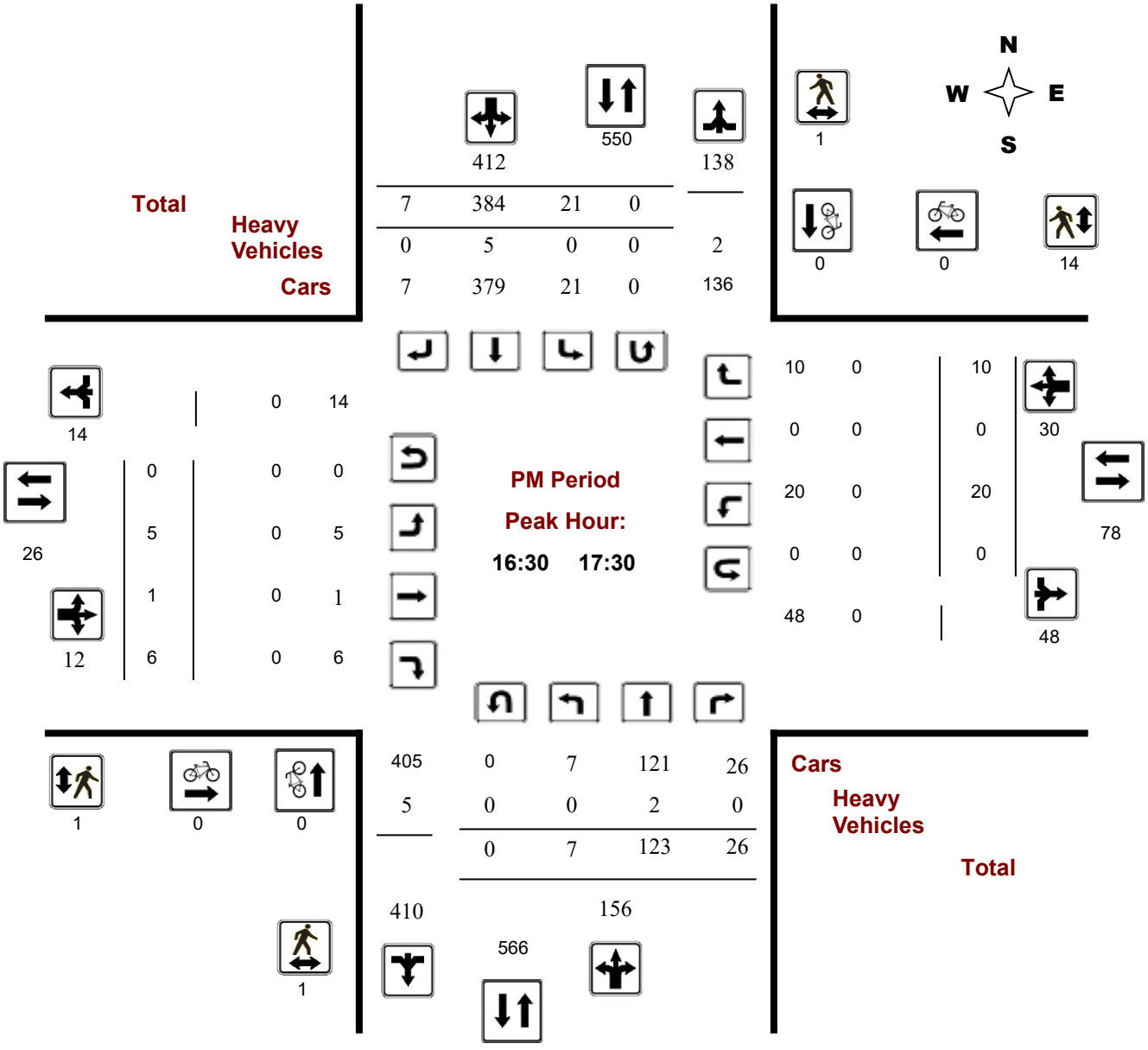
Turning Movement Count - Study Results

KELLY FARM DR @ TROLLIUS WAY

Survey Date: Wednesday, November 20, 2024 **WO No:** 42363

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

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

KELLY FARM DR @ TROLLIUS WAY

Survey Date: Wednesday, November 20, 2024 **WO No:** 42363

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

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, November 20, 2024

Total Observed U-Turns

Northbound: 0 Southbound: 0

Eastbound: 0 Westbound: 0

AADT Factor

.90

	Northbound				Southbound					Eastbound				Westbound					
Period	LT	ST	RT	**NB TOT**	LT	ST	RT	**SB TOT**	**STR TOT**	LT	ST	RT	**EB TOT**	LT	ST	RT	**WB TOT**	**STR TOT**	**Grand Total**
07:00 08:00	8	213	11	**232**	4	121	3	**128**	**360**	3	0	7	**10**	15	0	5	**20**	**30**	**390**
08:00 09:00	2	181	16	**199**	8	137	2	**147**	**346**	3	0	0	**3**	25	0	23	**48**	**51**	**397**
09:00 10:00	5	126	13	**144**	6	110	2	**118**	**262**	0	2	3	**5**	18	0	4	**22**	**27**	**289**
11:30 12:30	4	96	6	**106**	8	113	4	**125**	**231**	3	0	4	**7**	6	1	9	**16**	**23**	**254**
12:30 13:30	2	88	10	**100**	7	110	3	**120**	**220**	2	0	3	**5**	10	0	7	**17**	**22**	**242**
15:00 16:00	6	129	25	**160**	7	239	1	**247**	**407**	0	1	2	**3**	26	0	3	**29**	**32**	**439**
16:00 17:00	11	92	21	**124**	23	366	9	**398**	**522**	3	0	9	**12**	24	1	6	**31**	**43**	**565**
17:00 18:00	4	131	21	**156**	17	304	3	**324**	**480**	7	1	10	**18**	17	0	10	**27**	**45**	**525**
Sub Total	42	1056	123	**1221**	80	1500	27	**1607**	**2828**	21	4	38	**63**	141	2	67	**210**	**273**	**3101**
U Turns				**0**				**0**	**0**				**0**				**0**	**0**	**0**
Total	42	1056	123	**1221**	80	1500	27	**1607**	**2828**	21	4	38	**63**	141	2	67	**210**	**273**	**3101**
EQ 12Hr	58	1468	171	**1697**	111	2085	38	**2234**	**3931**	29	6	53	**88**	196	3	93	**292**	**379**	**4310**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	52	1321	154	**1527**	100	2458	44	**2011**	**3538**	26	5	48	**79**	176	3	84	**263**	**341**	**3879**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**.90**					
AVG 24Hr	68	1731	202	**2000**	131	3220	58	**2634**	**4635**	34	7	63	**103**	231	4	110	**345**	**447**	**5081**
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

KELLY FARM DR @ TROLLIUS WAY

Survey Date: Wednesday, November 20, 2024 **WO No:** 42363

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

Full Study 15 Minute Increments

		Northbound				Southbound					Eastbound				Westbound					
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	1	41	0	42	0	12	1	13	55	0	0	0	0	1	0	1	2	2	57
07:15	07:30	7	70	2	79	1	23	0	24	103	1	0	4	5	3	0	0	3	8	111
07:30	07:45	0	54	7	61	2	50	1	53	114	1	0	1	2	9	0	3	12	14	128
07:45	08:00	0	48	2	50	1	36	1	38	88	1	0	2	3	2	0	1	3	6	94
08:00	08:15	0	43	1	44	0	42	2	44	88	0	0	0	0	1	0	6	7	7	95
08:15	08:30	1	55	8	64	4	34	0	38	102	2	0	0	2	14	0	5	19	21	123
08:30	08:45	0	49	5	54	3	25	0	28	82	1	0	0	1	6	0	8	14	15	97
08:45	09:00	1	34	2	37	1	36	0	37	74	0	0	0	0	4	0	4	8	8	82
09:00	09:15	1	41	9	51	0	35	0	35	86	0	0	0	0	11	0	1	12	12	98
09:15	09:30	1	35	2	38	3	41	0	44	82	0	2	1	3	6	0	1	7	10	92
09:30	09:45	2	25	1	28	2	19	1	22	50	0	0	1	1	1	0	1	2	3	53
09:45	10:00	1	25	1	27	1	15	1	17	44	0	0	1	1	0	0	1	1	2	46
11:30	11:45	2	28	3	33	1	24	0	25	58	0	0	1	1	3	1	3	7	8	66
11:45	12:00	0	16	2	18	2	24	1	27	45	1	0	0	1	0	0	3	3	4	49
12:00	12:15	2	28	0	30	2	30	3	35	65	1	0	1	2	1	0	2	3	5	70
12:15	12:30	0	24	1	25	3	35	0	38	63	1	0	2	3	2	0	1	3	6	69
12:30	12:45	1	26	2	29	2	27	0	29	58	2	0	1	3	4	0	3	7	10	68
12:45	13:00	0	22	2	24	1	28	0	29	53	0	0	0	0	2	0	4	6	6	59
13:00	13:15	0	19	3	22	2	30	2	34	56	0	0	2	2	2	0	0	2	4	60
13:15	13:30	1	21	3	25	2	25	1	28	53	0	0	0	0	2	0	0	2	2	55
15:00	15:15	1	42	8	51	3	46	0	49	100	0	1	1	2	5	0	0	5	7	107
15:15	15:30	2	23	3	28	3	44	1	48	76	0	0	0	0	4	0	0	4	4	80
15:30	15:45	0	18	1	19	0	84	0	84	103	0	0	0	0	11	0	1	12	12	115
15:45	16:00	3	46	13	62	1	65	0	66	128	0	0	1	1	6	0	2	8	9	137
16:00	16:15	5	23	4	32	4	82	2	88	120	1	0	2	3	8	0	0	8	11	131
16:15	16:30	1	21	5	27	7	77	3	87	114	0	0	5	5	6	1	4	11	16	130
16:30	16:45	3	29	7	39	3	91	3	97	136	1	0	2	3	5	0	1	6	9	145
16:45	17:00	2	19	5	26	9	116	1	126	152	1	0	0	1	5	0	1	6	7	159
17:00	17:15	1	35	6	42	2	94	3	99	141	1	1	3	5	6	0	2	8	13	154
17:15	17:30	1	40	8	49	7	83	0	90	139	2	0	1	3	4	0	6	10	13	152
17:30	17:45	0	33	4	37	4	71	0	75	112	2	0	4	6	4	0	1	5	11	123
17:45	18:00	2	23	3	28	4	56	0	60	88	2	0	2	4	3	0	1	4	8	96
Total:		42	1056	123	1221	80	1500	27	1607	2828	21	4	38	63	141	2	67	210	273	3,101

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

KELLY FARM DR @ TROLLIUS WAY

Survey Date: Wednesday, November 20, 2024 **WO No:** 42363

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

Full Study Cyclist Volume

Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	0	0	0	0	0
07:15	07:30	0	0	0	0	0	0	0
07:30	07:45	0	0	0	0	0	0	0
07:45	08:00	0	0	0	0	0	0	0
08:00	08:15	0	3	3	0	2	2	5
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	1	0	1	5	2	7	8
15:15	15:30	0	0	0	1	0	1	1
15:30	15:45	0	3	3	0	0	0	3
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	1	0	1	0	0	0	1
17:45	18:00	0	0	0	0	0	0	0
Total		2	6	**8**	6	4	10	18

Transportation Services - Traffic Services

Turning Movement Count - Study Results

KELLY FARM DR @ TROLLIUS WAY

Survey Date: Wednesday, November 20, 2024 **WO No:** 42363

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

Full Study Pedestrian Volume

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	2	**2**	0	1	**1**	**3**
07:15 07:30	0	1	**1**	0	11	**11**	**12**
07:30 07:45	0	2	**2**	0	1	**1**	**3**
07:45 08:00	1	0	**1**	0	4	**4**	**5**
08:00 08:15	0	5	**5**	6	4	**10**	**15**
08:15 08:30	0	2	**2**	2	2	**4**	**6**
08:30 08:45	0	2	**2**	4	5	**9**	**11**
08:45 09:00	1	1	**2**	0	6	**6**	**8**
09:00 09:15	2	5	**7**	0	4	**4**	**11**
09:15 09:30	0	1	**1**	0	1	**1**	**2**
09:30 09:45	1	1	**2**	0	2	**2**	**4**
09:45 10:00	1	3	**4**	1	2	**3**	**7**
11:30 11:45	0	0	**0**	1	0	**1**	**1**
11:45 12:00	2	0	**2**	0	2	**2**	**4**
12:00 12:15	0	0	**0**	1	2	**3**	**3**
12:15 12:30	0	0	**0**	1	0	**1**	**1**
12:30 12:45	0	0	**0**	0	1	**1**	**1**
12:45 13:00	0	1	**1**	0	0	**0**	**1**
13:00 13:15	0	0	**0**	1	1	**2**	**2**
13:15 13:30	0	2	**2**	1	2	**3**	**5**
15:00 15:15	5	2	**7**	5	13	**18**	**25**
15:15 15:30	0	1	**1**	2	7	**9**	**10**
15:30 15:45	3	3	**6**	1	1	**2**	**8**
15:45 16:00	0	0	**0**	2	6	**8**	**8**
16:00 16:15	1	4	**5**	0	10	**10**	**15**
16:15 16:30	1	0	**1**	0	2	**2**	**3**
16:30 16:45	1	1	**2**	0	2	**2**	**4**
16:45 17:00	0	0	**0**	1	4	**5**	**5**
17:00 17:15	0	0	**0**	0	1	**1**	**1**
17:15 17:30	0	0	**0**	0	7	**7**	**7**
17:30 17:45	1	0	**1**	0	3	**3**	**4**
17:45 18:00	0	0	**0**	0	0	**0**	**0**
Total	20	39	**59**	29	107	**136**	**195**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

KELLY FARM DR @ TROLLIUS WAY

Survey Date: Wednesday, November 20, 2024 **WO No:** 42363

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

Full Study Heavy Vehicles

Time Period		Northbound				Southbound					Eastbound				Westbound					
		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	1	0	**1**	0	5	0	**5**	**6**	0	0	0	**0**	0	0	0	**0**	**0**	**6**
07:15	07:30	1	8	1	**10**	1	3	0	**4**	**14**	1	0	0	**1**	0	0	0	**0**	**1**	**15**
07:30	07:45	0	2	1	**3**	0	3	0	**3**	**6**	0	0	0	**0**	0	0	0	**0**	**0**	**6**
07:45	08:00	0	2	0	**2**	0	4	0	**4**	**6**	0	0	0	**0**	0	0	0	**0**	**0**	**6**
08:00	08:15	0	1	1	**2**	0	0	0	**0**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**2**
08:15	08:30	0	0	0	**0**	0	4	0	**4**	**4**	0	0	0	**0**	1	0	0	**1**	**1**	**5**
08:30	08:45	0	2	1	**3**	0	0	0	**0**	**3**	0	0	0	**0**	0	0	1	**1**	**1**	**4**
08:45	09:00	0	1	0	**1**	0	1	0	**1**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**2**
09:00	09:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	1	0	1	**2**	**2**	**2**
09:15	09:30	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
09:30	09:45	0	0	0	**0**	0	2	0	**2**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**2**
09:45	10:00	0	1	0	**1**	0	0	0	**0**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
11:30	11:45	0	1	0	**1**	0	1	0	**1**	**2**	0	0	0	**0**	1	0	0	**1**	**1**	**3**
11:45	12:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
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	2	0	**2**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**2**
12:30	12:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
12:45	13:00	0	2	0	**2**	0	0	0	**0**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**2**
13:00	13:15	0	1	0	**1**	0	5	1	**6**	**7**	0	0	1	**1**	0	0	0	**0**	**1**	**8**
13:15	13:30	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
15:00	15:15	0	0	0	**0**	1	0	0	**1**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
15:15	15:30	0	2	1	**3**	0	0	0	**0**	**3**	0	0	0	**0**	0	0	0	**0**	**0**	**3**
15:30	15:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	1	0	0	**1**	**1**	**1**
15:45	16:00	0	2	0	**2**	0	1	0	**1**	**3**	0	0	0	**0**	0	0	0	**0**	**0**	**3**
16:00	16:15	0	1	1	**2**	1	1	0	**2**	**4**	0	0	0	**0**	0	0	0	**0**	**0**	**4**
16:15	16:30	0	1	0	**1**	1	1	1	**3**	**4**	0	0	1	**1**	2	0	0	**2**	**3**	**7**
16:30	16:45	0	1	0	**1**	0	2	0	**2**	**3**	0	0	0	**0**	0	0	0	**0**	**0**	**3**
16:45	17:00	0	0	0	**0**	0	1	0	**1**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
17:00	17:15	0	1	0	**1**	0	1	0	**1**	**2**	0	0	0	**0**	0	0	0	**0**	**0**	**2**
17:15	17:30	0	0	0	**0**	0	1	0	**1**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
17:30	17:45	0	0	0	**0**	0	1	0	**1**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
17:45	18:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
Total:	None	1	30	6	**37**	4	40	2	**46**	**83**	1	0	2	**3**	6	0	2	**8**	**11**	**94**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

KELLY FARM DR @ TROLLIUS WAY

Survey Date: Wednesday, November 20, 2024 **WO No:** 42363

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

Full Study 15 Minute U-Turn Total

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

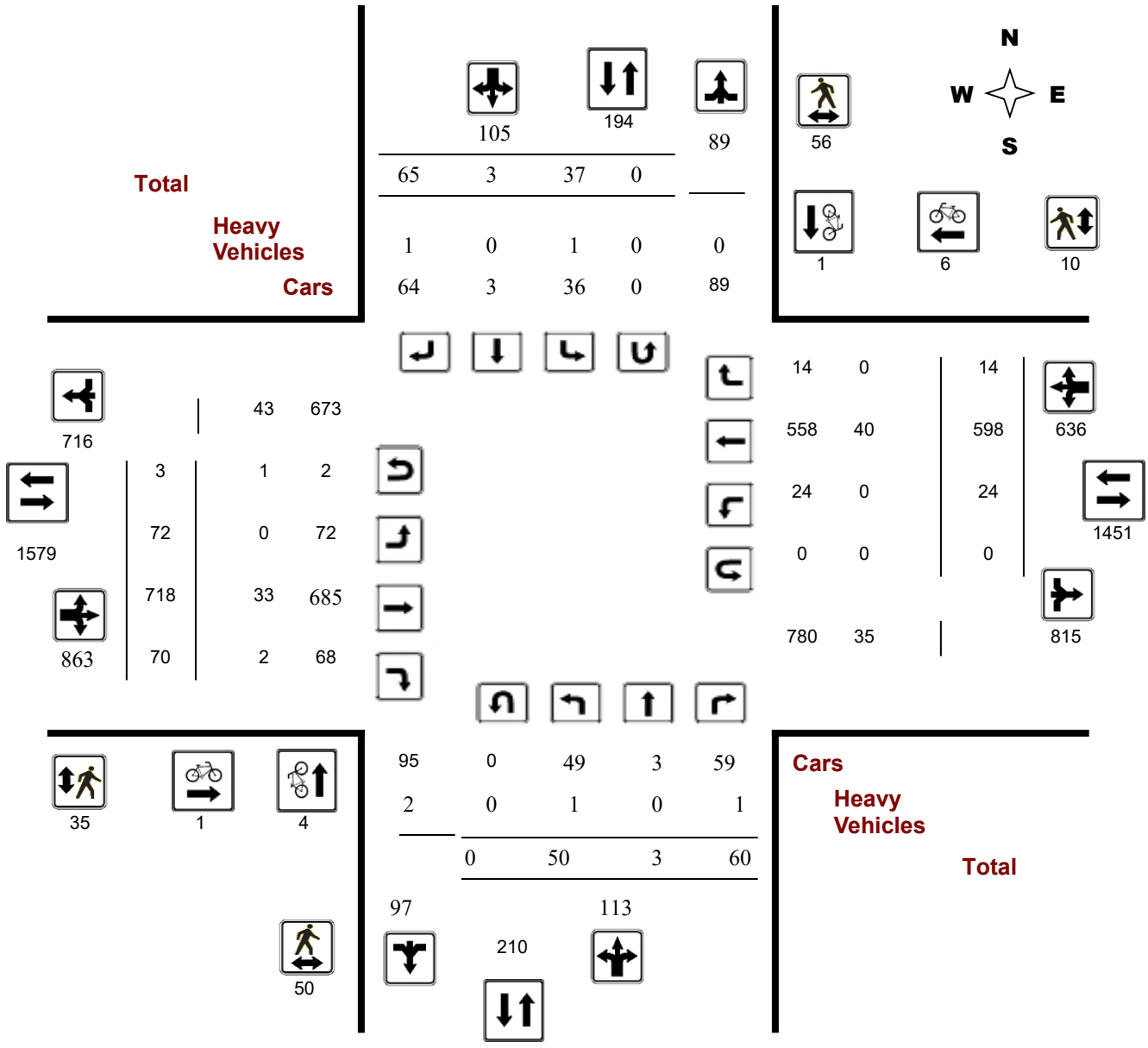
Transportation Services - Traffic Services

Turning Movement Count - Study Results

BARRETT FARM DR @ NEPETA CRES W

Survey Date: Wednesday, November 20, 2024
Start Time: 07:00
WO No: 42364
Device: Miovision

Full Study Diagram



Transportation Services - Traffic Services

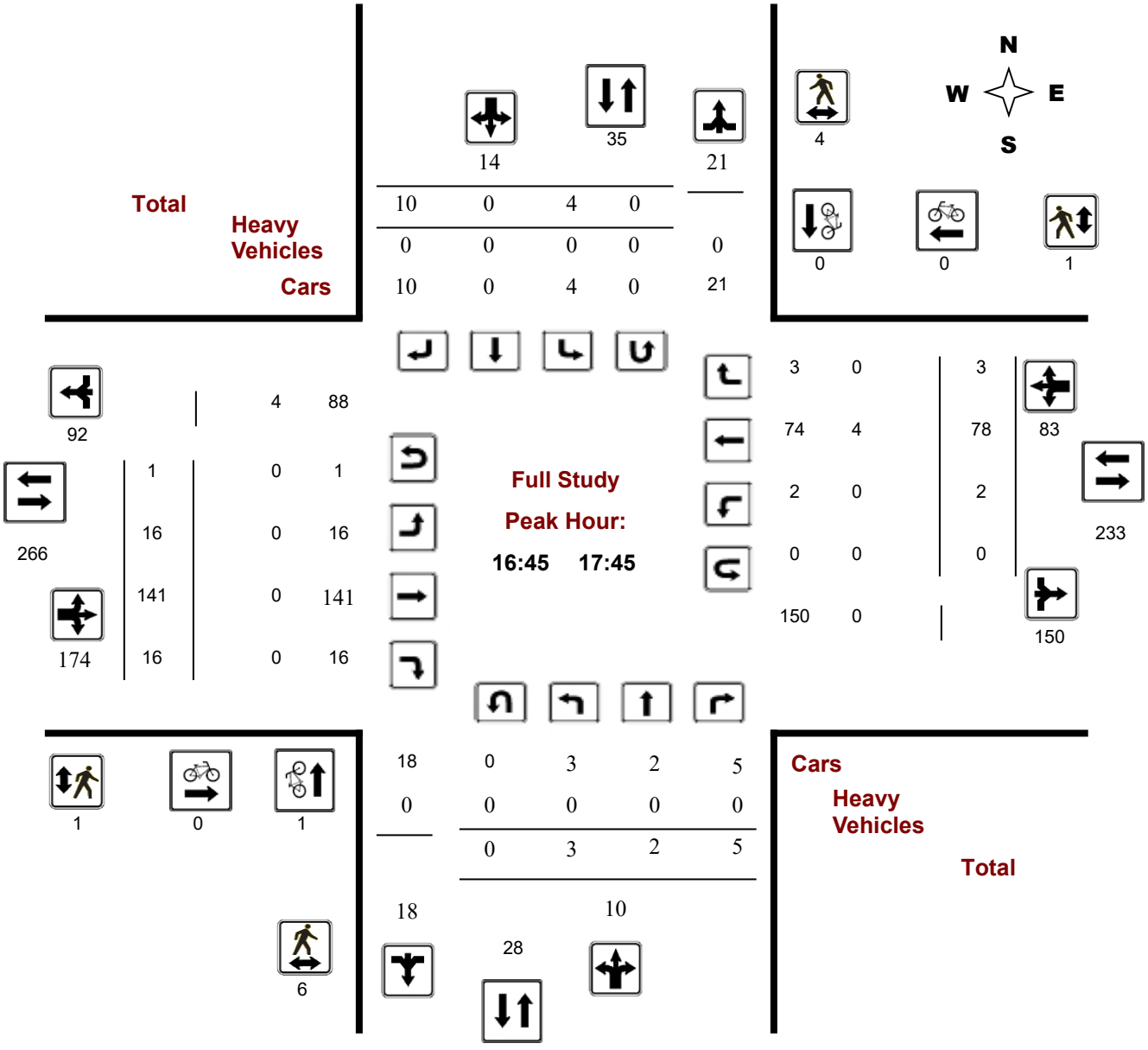
Turning Movement Count - Study Results

BARRETT FARM DR @ NEPETA CRES W

Survey Date: Wednesday, November 20, 2024 **WO No:** 42364

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

Full Study Peak Hour Diagram



Transportation Services - Traffic Services

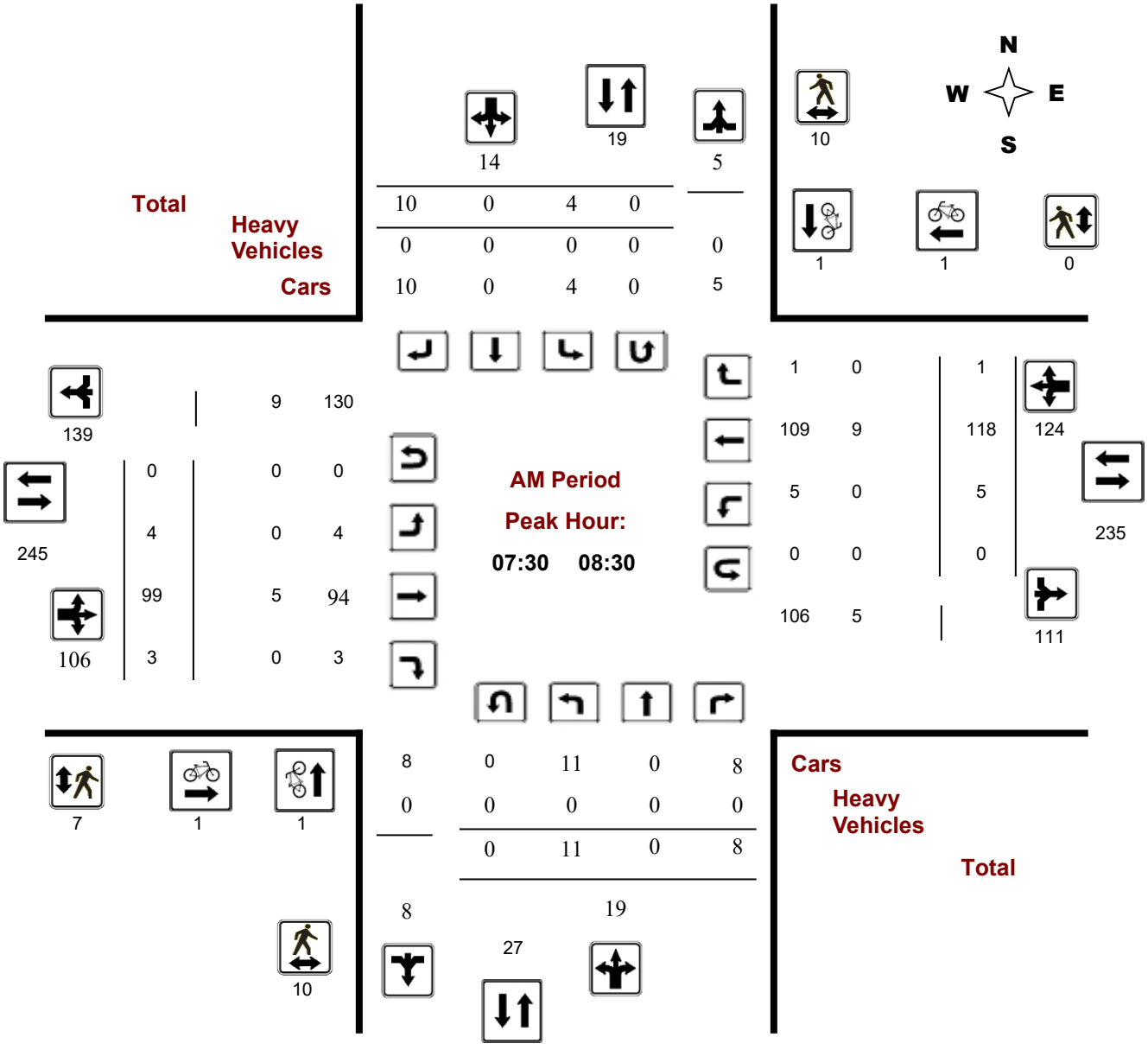
Turning Movement Count - Study Results

BARRETT FARM DR @ NEPETA CRES W

Survey Date: Wednesday, November 20, 2024 **WO No:** 42364

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

AM Period Peak Hour Diagram



Transportation Services - Traffic Services

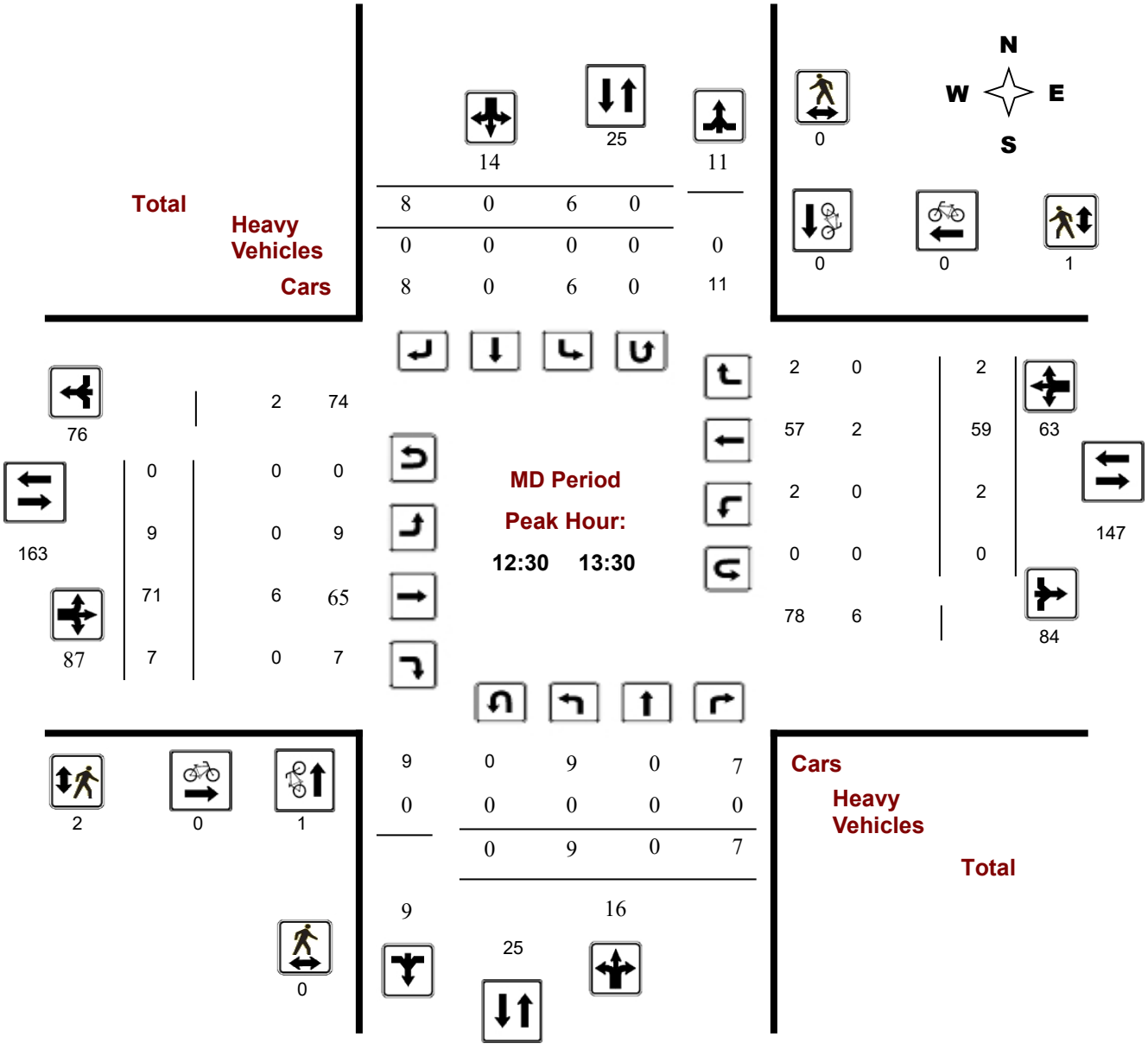
Turning Movement Count - Study Results

BARRETT FARM DR @ NEPETA CRES W

Survey Date: Wednesday, November 20, 2024 **WO No:** 42364

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

MD Period Peak Hour Diagram



Transportation Services - Traffic Services

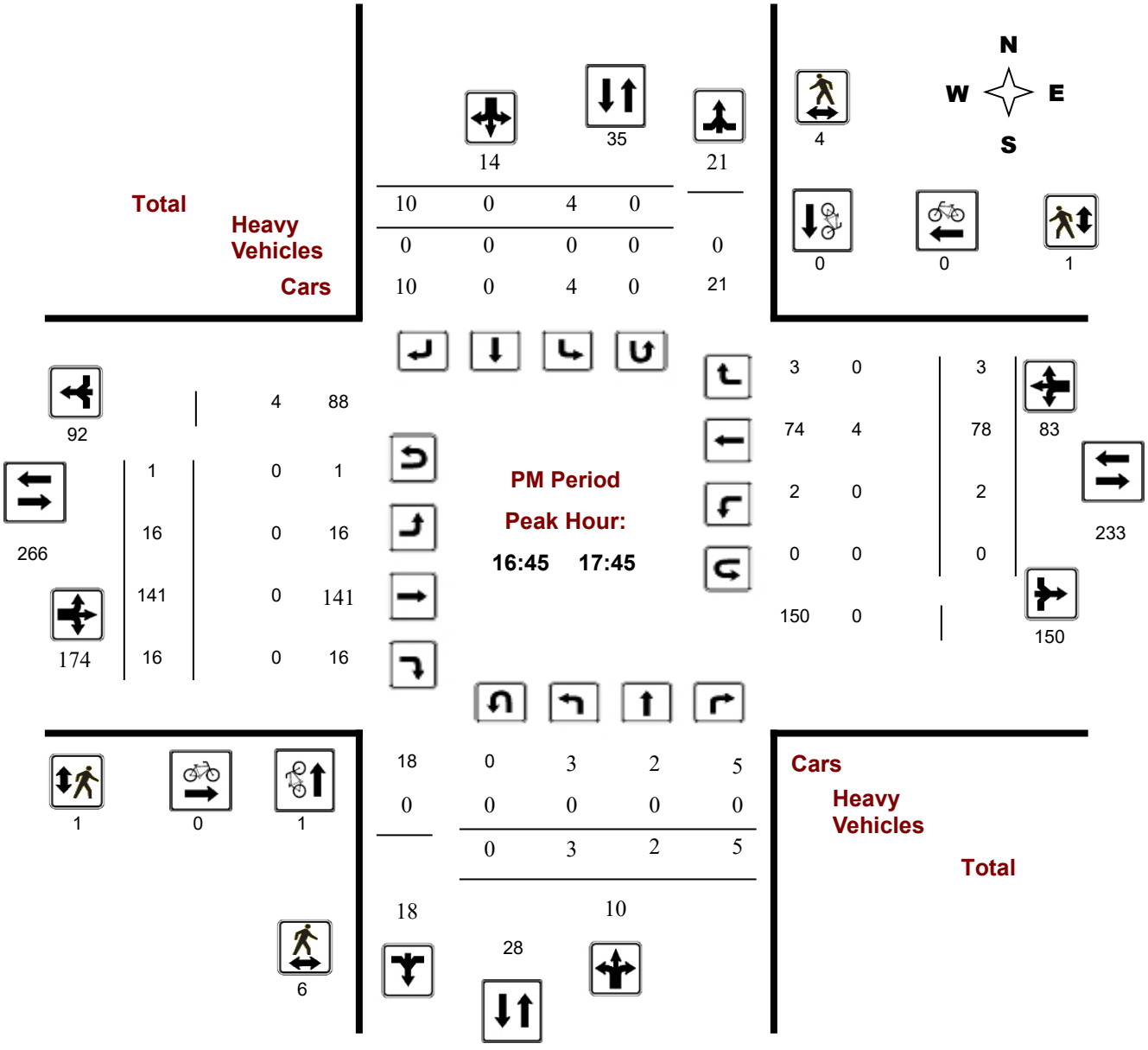
Turning Movement Count - Study Results

BARRETT FARM DR @ NEPETA CRES W

Survey Date: Wednesday, November 20, 2024 **WO No:** 42364

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

PM Period Peak Hour Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

BARRETT FARM DR @ NEPETA CRES W

Survey Date: Wednesday, November 20, 2024 **WO No:** 42364

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

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, November 20, 2024

Total Observed U-Turns

Northbound: 0 Southbound: 0

Eastbound: 3 Westbound: 0

AADT Factor

.90

	Northbound				Southbound					Eastbound				Westbound					
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00 08:00	11	0	6	**17**	6	1	6	**13**	**30**	3	77	1	**81**	1	117	0	**118**	**199**	**229**
08:00 09:00	9	0	9	**18**	3	0	14	**17**	**35**	6	91	10	**107**	5	85	2	**92**	**199**	**234**
09:00 10:00	0	0	6	**6**	5	0	8	**13**	**19**	6	55	5	**66**	0	49	1	**50**	**116**	**135**
11:30 12:30	7	0	7	**14**	5	0	4	**9**	**23**	4	70	5	**79**	2	51	0	**53**	**132**	**155**
12:30 13:30	9	0	7	**16**	6	0	8	**14**	**30**	9	71	7	**87**	2	59	2	**63**	**150**	**180**
15:00 16:00	5	0	13	**18**	3	2	5	**10**	**28**	12	115	15	**142**	6	83	1	**90**	**232**	**260**
16:00 17:00	5	1	8	**14**	6	0	8	**14**	**28**	17	101	15	**133**	5	81	7	**93**	**226**	**254**
17:00 18:00	4	2	4	**10**	3	0	12	**15**	**25**	15	138	12	**165**	3	73	1	**77**	**242**	**267**
Sub Total	50	3	60	**113**	37	3	65	**105**	**218**	72	718	70	**860**	24	598	14	**636**	**1496**	**1714**
U Turns				**0**				**0**	**0**				**3**				**0**	**3**	**3**
Total	50	3	60	**113**	37	3	65	**105**	**218**	72	718	70	**863**	24	598	14	**636**	**1499**	**1717**
EQ 12Hr	70	4	83	**157**	51	4	90	**146**	**303**	100	998	97	**1200**	33	831	19	**884**	**2084**	**2387**
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														**1.39**					
AVG 12Hr	63	4	75	**141**	46	5	107	**131**	**273**	90	898	87	**1080**	30	748	17	**796**	**1876**	**2148**
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														**.90**					
AVG 24Hr	83	5	98	**185**	60	7	140	**172**	**358**	118	1176	114	**1415**	39	980	22	**1043**	**2458**	**2814**
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

BARRETT FARM DR @ NEPETA CRES W

Survey Date: Wednesday, November 20, 2024 **WO No:** 42364

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

Full Study 15 Minute Increments

Time Period		Northbound				Southbound					Eastbound				Westbound					Grand Total
		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	
07:00	07:15	1	0	0	1	2	0	0	2	3	0	15	1	16	0	20	0	20	36	39
07:15	07:30	4	0	2	6	1	1	1	3	9	1	17	0	18	0	29	0	29	47	56
07:30	07:45	5	0	2	7	2	0	2	4	11	0	24	0	24	0	34	0	34	58	69
07:45	08:00	1	0	2	3	1	0	3	4	7	2	21	0	23	1	34	0	35	58	65
08:00	08:15	3	0	1	4	1	0	1	2	6	1	23	0	24	2	31	1	34	58	64
08:15	08:30	2	0	3	5	0	0	4	4	9	1	31	3	35	2	19	0	21	56	65
08:30	08:45	3	0	5	8	1	0	5	6	14	3	23	4	31	1	19	0	20	51	65
08:45	09:00	1	0	0	1	1	0	4	5	6	1	14	3	18	0	16	1	17	35	41
09:00	09:15	0	0	1	1	0	0	3	3	4	0	14	1	15	0	11	0	11	26	30
09:15	09:30	0	0	3	3	2	0	1	3	6	6	13	1	20	0	12	0	12	32	38
09:30	09:45	0	0	0	0	1	0	2	3	3	0	15	0	15	0	15	1	16	31	34
09:45	10:00	0	0	2	2	2	0	2	4	6	0	13	3	16	0	11	0	11	27	33
11:30	11:45	0	0	3	3	0	0	1	1	4	1	21	0	22	0	16	0	16	38	42
11:45	12:00	0	0	3	3	1	0	0	1	4	1	13	1	15	0	14	0	14	29	33
12:00	12:15	2	0	0	2	2	0	3	5	7	1	25	1	27	1	13	0	14	41	48
12:15	12:30	5	0	1	6	2	0	0	2	8	1	11	3	15	1	8	0	9	24	32
12:30	12:45	3	0	2	5	1	0	3	4	9	4	18	3	25	0	17	0	17	42	51
12:45	13:00	0	0	0	0	0	0	2	2	2	2	23	2	27	0	13	1	14	41	43
13:00	13:15	4	0	1	5	2	0	3	5	10	1	9	0	10	0	13	1	14	24	34
13:15	13:30	2	0	4	6	3	0	0	3	9	2	21	2	25	2	16	0	18	43	52
15:00	15:15	1	0	6	7	0	0	1	1	8	4	25	5	34	2	21	0	23	57	65
15:15	15:30	2	0	0	2	1	1	1	3	5	2	21	3	26	0	22	0	22	48	53
15:30	15:45	2	0	6	8	1	1	1	3	11	2	36	3	41	2	21	0	23	64	75
15:45	16:00	0	0	1	1	1	0	2	3	4	4	33	4	41	2	19	1	22	63	67
16:00	16:15	2	0	2	4	1	0	1	2	6	3	27	3	33	3	27	0	30	63	69
16:15	16:30	0	1	1	2	2	0	4	6	8	2	21	2	25	2	20	4	26	51	59
16:30	16:45	2	0	2	4	2	0	2	4	8	7	24	5	37	0	16	1	17	54	62
16:45	17:00	1	0	3	4	1	0	1	2	6	5	29	5	39	0	18	2	20	59	65
17:00	17:15	0	0	1	1	0	0	4	4	5	4	38	4	47	1	15	1	17	64	69
17:15	17:30	0	2	1	3	0	0	2	2	5	2	35	3	40	1	18	0	19	59	64
17:30	17:45	2	0	0	2	3	0	3	6	8	5	39	4	48	0	27	0	27	75	83
17:45	18:00	2	0	2	4	0	0	3	3	7	4	26	1	31	1	13	0	14	45	52
Total:		50	3	60	113	37	3	65	105	218	72	718	70	863	24	598	14	636	1499	1,717

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BARRETT FARM DR @ NEPETA CRES W

Survey Date: Wednesday, November 20, 2024 **WO No:** 42364

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

Full Study Cyclist Volume

Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	0	0	0	0	0
07:15	07:30	0	0	0	0	0	0	0
07:30	07:45	0	0	0	0	0	0	0
07:45	08:00	0	0	0	0	0	0	0
08:00	08:15	1	1	2	1	1	2	4
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	1	1	1
12:00	12:15	0	0	0	0	0	0	0
12:15	12:30	0	0	0	0	0	0	0
12:30	12:45	0	0	0	0	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	1	0	1	0	0	0	1
15:15	15:30	0	0	0	0	2	2	2
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	2	2	2
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	1	0	1	0	0	0	1
17:45	18:00	0	0	0	0	0	0	0
Total		4	1	**5**	1	6	7	12

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BARRETT FARM DR @ NEPETA CRES W

Survey Date: Wednesday, November 20, 2024 **WO No:** 42364

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

Full Study Pedestrian Volume

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	1	1	**2**	0	0	**0**	**2**
07:15 07:30	2	4	**6**	8	2	**10**	**16**
07:30 07:45	1	4	**5**	3	0	**3**	**8**
07:45 08:00	4	2	**6**	1	0	**1**	**7**
08:00 08:15	3	3	**6**	2	0	**2**	**8**
08:15 08:30	2	1	**3**	1	0	**1**	**4**
08:30 08:45	6	5	**11**	3	4	**7**	**18**
08:45 09:00	2	2	**4**	2	0	**2**	**6**
09:00 09:15	1	0	**1**	0	1	**1**	**2**
09:15 09:30	0	0	**0**	0	0	**0**	**0**
09:30 09:45	0	2	**2**	0	0	**0**	**2**
09:45 10:00	1	0	**1**	0	0	**0**	**1**
11:30 11:45	0	0	**0**	0	0	**0**	**0**
11:45 12:00	0	0	**0**	0	0	**0**	**0**
12:00 12:15	1	1	**2**	0	0	**0**	**2**
12:15 12:30	3	0	**3**	0	0	**0**	**3**
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**	0	0	**0**	**0**
13:15 13:30	0	0	**0**	1	1	**2**	**2**
15:00 15:15	2	0	**2**	2	0	**2**	**4**
15:15 15:30	1	4	**5**	5	1	**6**	**11**
15:30 15:45	0	0	**0**	0	0	**0**	**0**
15:45 16:00	1	2	**3**	0	0	**0**	**3**
16:00 16:15	3	13	**16**	5	0	**5**	**21**
16:15 16:30	7	3	**10**	0	0	**0**	**10**
16:30 16:45	3	3	**6**	0	0	**0**	**6**
16:45 17:00	0	1	**1**	0	0	**0**	**1**
17:00 17:15	1	0	**1**	0	0	**0**	**1**
17:15 17:30	3	3	**6**	1	1	**2**	**8**
17:30 17:45	2	0	**2**	0	0	**0**	**2**
17:45 18:00	0	2	**2**	0	0	**0**	**2**
Total	50	56	**106**	35	10	**45**	**151**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BARRETT FARM DR @ NEPETA CRES W

Survey Date: Wednesday, November 20, 2024 **WO No:** 42364

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

Full Study Heavy Vehicles

Time Period		Northbound				Southbound					Eastbound				Westbound					
		LT	ST	RT	**N TOT**	LT	ST	RT	**S TOT**	**STR TOT**	LT	ST	RT	**E TOT**	LT	ST	RT	**W TOT**	**STR TOT**	**Grand Total**
07:00	07:15	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	1	0	**1**	**2**	**2**
07:15	07:30	0	0	0	**0**	0	0	0	**0**	**0**	0	5	0	**5**	0	6	0	**6**	**11**	**11**
07:30	07:45	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	2	0	**2**	**3**	**3**
07:45	08:00	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	3	0	**3**	**4**	**4**
08:00	08:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	2	0	**2**	**2**	**2**
08:15	08:30	0	0	0	**0**	0	0	0	**0**	**0**	0	3	0	**3**	0	2	0	**2**	**5**	**5**
08:30	08:45	0	0	0	**0**	0	0	0	**0**	**0**	0	3	0	**4**	0	2	0	**2**	**6**	**6**
08:45	09:00	0	0	0	**0**	0	0	0	**0**	**0**	0	2	0	**2**	0	1	0	**1**	**3**	**3**
09:00	09:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	1	**1**	0	0	0	**0**	**1**	**1**
09:15	09:30	0	0	1	**1**	0	0	0	**0**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
09:30	09:45	0	0	0	**0**	0	0	0	**0**	**0**	0	3	0	**3**	0	1	0	**1**	**4**	**4**
09:45	10:00	0	0	0	**0**	0	0	1	**1**	**1**	0	1	1	**2**	0	2	0	**2**	**4**	**5**
11:30	11:45	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	1	0	**1**	**2**	**2**
11:45	12:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
12:00	12:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
12:15	12:30	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
12:30	12:45	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	0	0	**0**	**1**	**1**
12:45	13:00	0	0	0	**0**	0	0	0	**0**	**0**	0	4	0	**4**	0	0	0	**0**	**4**	**4**
13:00	13:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	1	0	**1**	**1**	**1**
13:15	13:30	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	1	0	**1**	**2**	**2**
15:00	15:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	2	0	**2**	**2**	**2**
15:15	15:30	0	0	0	**0**	0	0	0	**0**	**0**	0	1	0	**1**	0	3	0	**3**	**4**	**4**
15:30	15:45	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	1	0	**1**	**1**	**1**
15:45	16:00	0	0	0	**0**	0	0	0	**0**	**0**	0	2	0	**2**	0	0	0	**0**	**2**	**2**
16:00	16:15	1	0	0	**1**	0	0	0	**0**	**1**	0	1	0	**1**	0	1	0	**1**	**2**	**3**
16:15	16:30	0	0	0	**0**	0	0	0	**0**	**0**	0	2	0	**2**	0	4	0	**4**	**6**	**6**
16:30	16:45	0	0	0	**0**	1	0	0	**1**	**1**	0	0	0	**0**	0	0	0	**0**	**0**	**1**
16:45	17:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	2	0	**2**	**2**	**2**
17:00	17:15	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
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	1	0	**1**	**1**	**1**
17:45	18:00	0	0	0	**0**	0	0	0	**0**	**0**	0	0	0	**0**	0	0	0	**0**	**0**	**0**
Total:	None	1	0	1	**2**	1	0	1	**2**	**4**	0	33	2	**36**	0	40	0	**40**	**76**	**80**

Transportation Services - Traffic Services

Turning Movement Count - Study Results

BARRETT FARM DR @ NEPETA CRES W

Survey Date: Wednesday, November 20, 2024 **WO No:** 42364

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

Full Study 15 Minute U-Turn Total

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