

1867 Alta Vista Drive
Transportation Impact Assessment

Step 1 Screening Report

Step 2 Scoping Report

Step 3 Strategy Report

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Table of Contents

| | | |
|--------|---|----|
| 1 | Screening | 1 |
| 2 | Existing and Planned Conditions | 1 |
| 2.1 | Proposed Development..... | 1 |
| 2.2 | Existing Conditions | 3 |
| 2.2.1 | Area Road Network..... | 3 |
| 2.2.2 | Existing Intersections | 3 |
| 2.2.3 | Existing Driveways | 3 |
| 2.2.4 | Cycling and Pedestrian Facilities..... | 4 |
| 2.2.5 | Existing Transit..... | 6 |
| 2.2.6 | Existing Area Traffic Management Measures..... | 8 |
| 2.2.7 | Existing Peak Hour Travel Demand..... | 8 |
| 2.2.8 | Collision Analysis..... | 10 |
| 2.3 | Planned Conditions..... | 12 |
| 2.3.1 | Changes to the Area Transportation Network | 12 |
| 2.3.2 | Other Study Area Developments | 14 |
| 3 | Study Area and Time Periods | 14 |
| 3.1 | Study Area | 14 |
| 3.2 | Time Periods | 15 |
| 3.3 | Horizon Years..... | 15 |
| 4 | Development-Generated Travel Demand | 15 |
| 4.1 | Mode Shares..... | 15 |
| 4.2 | Trip Generation | 15 |
| 4.3 | Trip Distribution..... | 16 |
| 4.4 | Trip Assignment..... | 16 |
| 5 | Exemption Review | 17 |
| 6 | Development Design | 19 |
| 6.1 | Design for Sustainable Modes | 19 |
| 6.2 | Circulation and Access | 19 |
| 7 | Parking..... | 19 |
| 7.1 | Parking Supply | 19 |
| 8 | Boundary Street Design..... | 19 |
| 9 | Transportation Demand Management | 20 |
| 9.1 | Context for TDM | 20 |
| 9.2 | Need and Opportunity..... | 20 |
| 9.3 | TDM Program | 20 |
| 10 | Intersection Design..... | 20 |
| 10.1 | Access Intersection Control..... | 20 |
| 10.2 | Intersection Design..... | 21 |
| 10.2.1 | Private Approach By-Law Provisions | 21 |
| 10.2.2 | TAC Suggested Design Criteria | 21 |
| 10.2.3 | Recommended Design Elements..... | 22 |
| 11 | Summary of Improvements Indicated and Modifications Options | 22 |

| | | |
|----|------------------|----|
| 12 | Conclusion | 24 |
|----|------------------|----|

List of Figures

| | |
|---|----|
| Figure 1: Area Context Plan | 1 |
| Figure 2: Concept Plan..... | 2 |
| Figure 3: Existing Driveways | 4 |
| Figure 4: Study Area Pedestrian Facilities | 5 |
| Figure 5: Study Area Cycling Facilities | 5 |
| Figure 6: Existing Pedestrian Volumes | 6 |
| Figure 7: Existing Cyclist Volumes | 6 |
| Figure 8: Existing Study Area Transit Service..... | 7 |
| Figure 9: Existing Study Area Transit Stops | 8 |
| Figure 10: Existing Traffic Counts | 9 |
| Figure 11: Study Area Collision Records | 11 |
| Figure 12: Smyth Road Cycling Safety Improvements Project | 14 |
| Figure 13: New Site Generation Auto Volumes..... | 17 |

Table of Tables

| | |
|--|----|
| Table 1: Intersection Count Date..... | 8 |
| Table 2: Existing Intersection Operations..... | 9 |
| Table 3: Study Area Collision Summary, 2018-2022 | 10 |
| Table 4: Summary of Collision Locations, 2018-2022 | 11 |
| Table 5: Alta Vista Drive at Smyth Road Collision Summary | 11 |
| Table 6: TRANS Trip Generation Manual Recommended Mode Shares – Alta Vista | 15 |
| Table 7: Trip Generation Person Trip Rates by Peak Period..... | 15 |
| Table 8: Person Trip Generation by Peak Period..... | 15 |
| Table 9: Trip Generation by Mode | 16 |
| Table 10: OD Survey Distribution – Alta Vista | 16 |
| Table 11: Trip Assignment | 16 |
| Table 12: Exemption Review | 17 |
| Table 13: Boundary Street MMLOS Analysis..... | 20 |

List of Appendices

| |
|--|
| Appendix A – TIA Screening Form and Certification Form |
| Appendix B – Turning Movement Count Data |
| Appendix C – Synchro Intersection Worksheets – Existing Conditions |
| Appendix D – Collision Data |
| Appendix E – TDM Checklists |
| Appendix F – Turning Templates |
| Appendix G – MMLOS Analysis |

1 Screening

This study has been prepared according to the City of Ottawa's 2017 Transportation Impact Assessment (TIA) Guidelines, incorporating the 2023 Revision to Transportation Impact Assessment Guidelines. Accordingly, a Step 1 Screening Form has been prepared and is included as Appendix A, along with the Certification Form for the TIA study PM. As shown in the Screening Form, a TIA is required, and this study has been prepared to support an Official Plan Amendment and Zoning By-Law Amendment application.

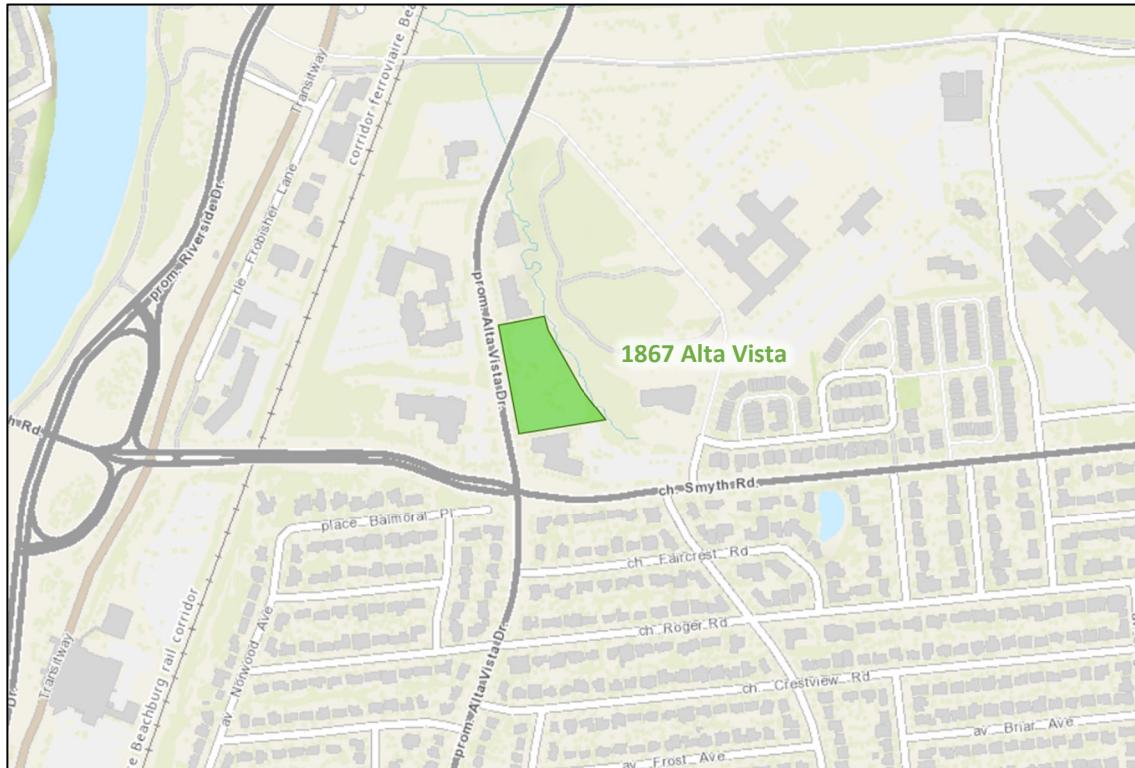
2 Existing and Planned Conditions

2.1 Proposed Development

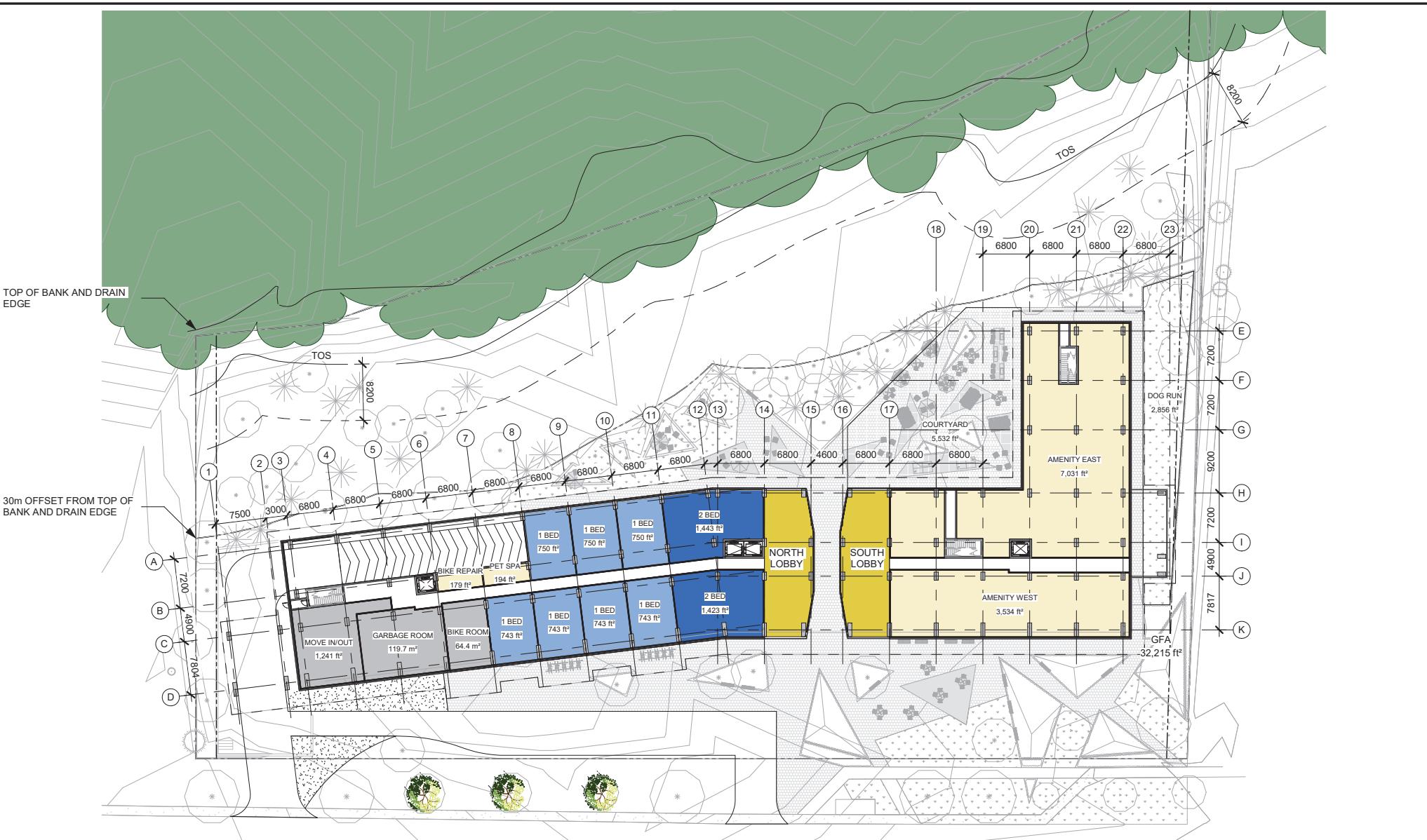
The subject site, located at 1867 Alta Vista Drive, is currently zoned as Business Park Industrial Subzone 12 (IP12 F(1.5), IP12[2424] F(1.2)). The site is currently an at-grade parking lot and the proposed development concept is to remove the existing parking lot and to construct a nine-storey residential building comprising 329 residential dwellings with vehicle parking comprising 216 spaces is proposed below grade. Site access is proposed via a two-way full-movement access on the north side of the site and a one-way inbound access to a drop-off loop central to the parcel. The development is anticipated to be built out in a single phase by 2028.

Figure 1 illustrates the study area context. Figure 2 illustrates the proposed concept plan.

Figure 1: Area Context Plan



Source: <http://maps.ottawa.ca/geoOttawa/> Accessed: August 18, 2025



rla / architecture

GROUND FLOOR PLAN

SCALE: 1 : 500

DATE: 2025-12-09

GFA: 32,215 SQ FT
AMENITY AREA: 19,326 SQ FT / 1,795 SQ M
UNITS: 9
STUDIO: 0 2 BED: 2
1 BED: 0 2+ DEN: 0
1+ DEN: 7 3 BED: 0

1867 ALTA VISTA

1867 Alta Vista Drive, Ottawa, Ontario

DRAWN BY
LS

SHEET #

D102

PROJ. No. 2516

PLOT DATE: 12/9/2025 2:56:15 PM

2.2 Existing Conditions

2.2.1 Area Road Network

Alta Vista Drive: Alta Vista Drive is a City of Ottawa major collector road with a two-lane urban cross section. Sidewalks and bike lanes are provided on both sides of the road. The posted speed limit is 50 km/h and the measured right of way is 30.5 metres. No right-of-way protection is designated for Alta Vista Drive within the Official Plan.

Smyth Road: Smyth Road is a City of Ottawa arterial road with a four-lane urban cross-section. West of Alta Vista Drive, sidewalks are provided on both sides of the road and east of Alta Vista Drive, a sidewalk is provided on the north side of the road and an asphalt pathway is provided on the south side of the road. The posted speed limit is 50 km/h, and the measured right-of-way is 42.5 metres west of Alta Vista Drive and the protected right-of-way from the Official Plan is 30 metres east of Alta Vista Drive. Smyth Road is designated as a truck route.

2.2.2 Existing Intersections

The existing study area intersection, within 400 metres of the development, is summarized below:

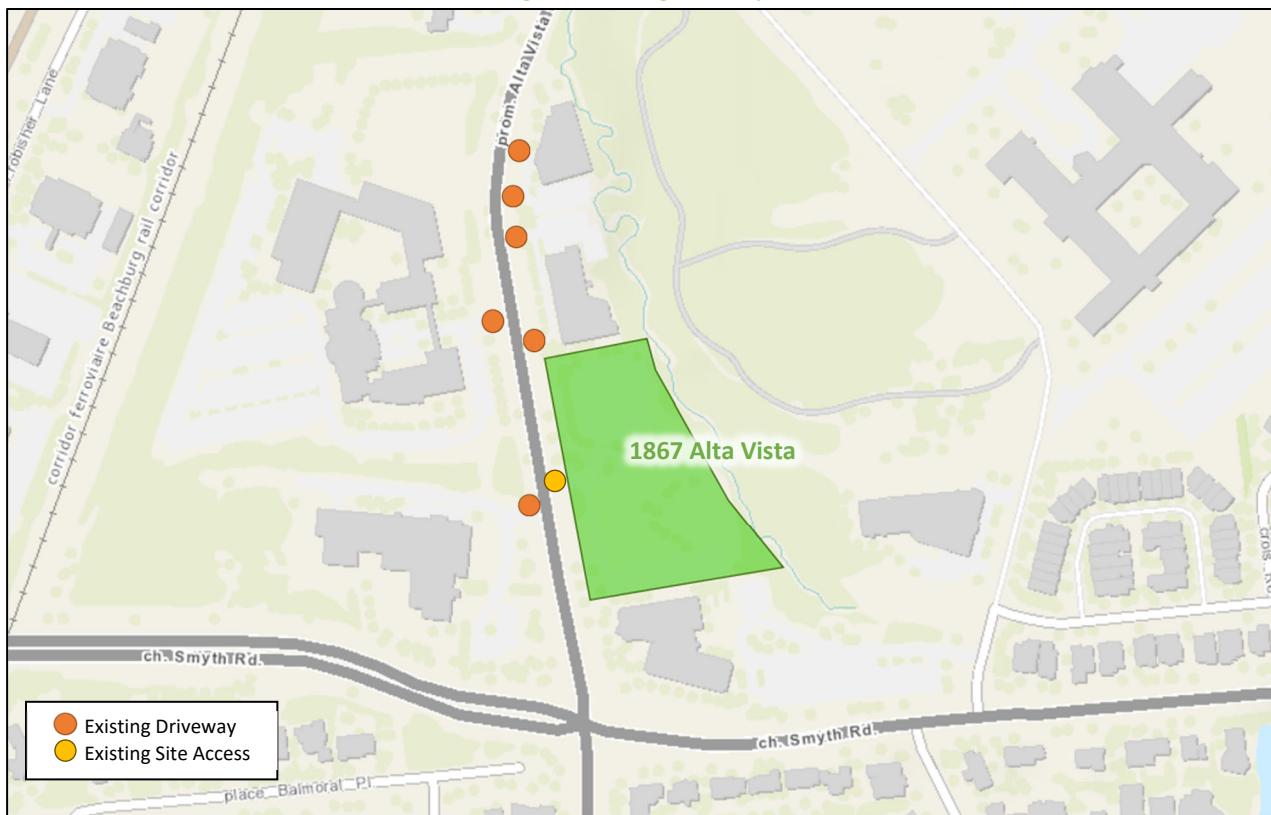
Smyth Road at Alta Vista Drive

The intersection of Smyth Road at Alta Vista Drive is a signalized intersection. The northbound and southbound approaches each consist of an auxiliary left-turn lane, a through lane, a bike lane, and a channelized right-turn lane. The eastbound and westbound approaches each consist of an auxiliary left-turn lane, two through lanes and an auxiliary channelized right-turn lane. No turn restrictions were noted.

2.2.3 Existing Driveways

Within 200 metres of the proposed site access, two driveways to office buildings are present on the west side of Alta Vista Drive, and four driveways to two office buildings are present on the east side of Alta Vista Drive. Figure 3 illustrates the existing driveways.

Figure 3: Existing Driveways



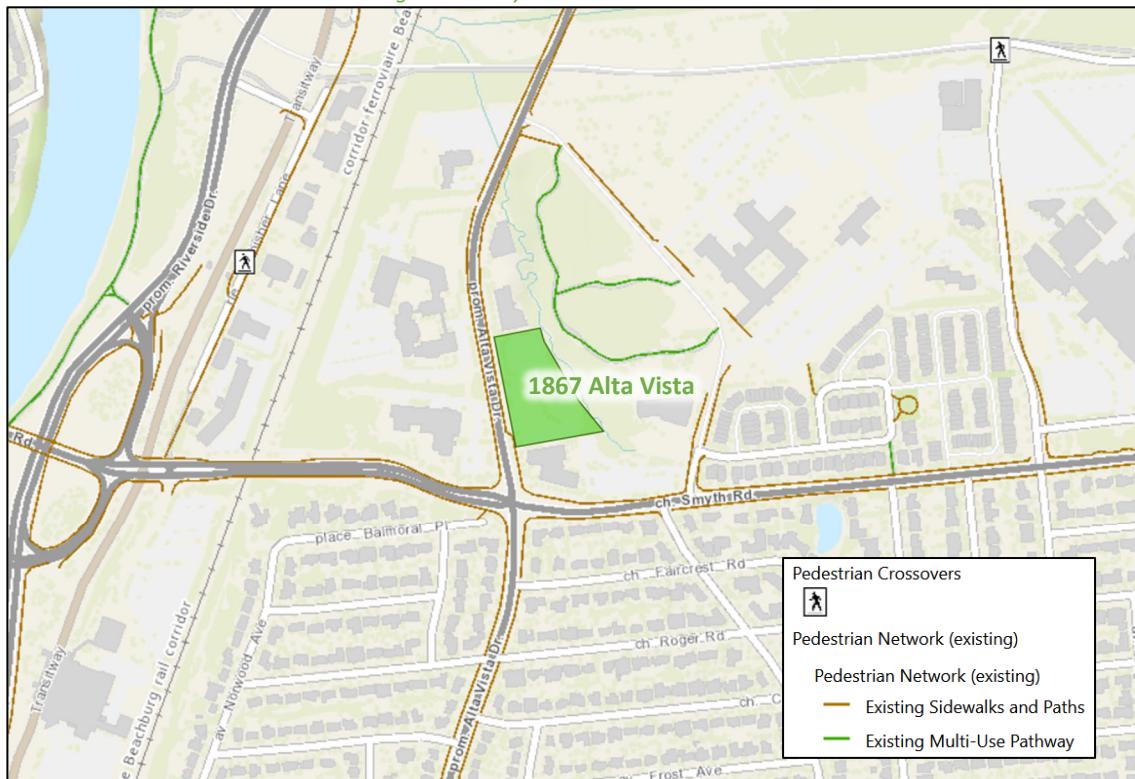
2.2.4 Cycling and Pedestrian Facilities

Figure 4 illustrates the pedestrian facilities in the study area and Figure 5 illustrates the cycling facilities.

Sidewalks are provided on both sides along Alta Vista Drive and portions of Smyth Road and Valor Drive. Sidewalks are provided on one side of portions of Smyth Road and Valor Drive. Additionally, asphalt pathways are present on portions of Hospital Link Road and Smyth Road.

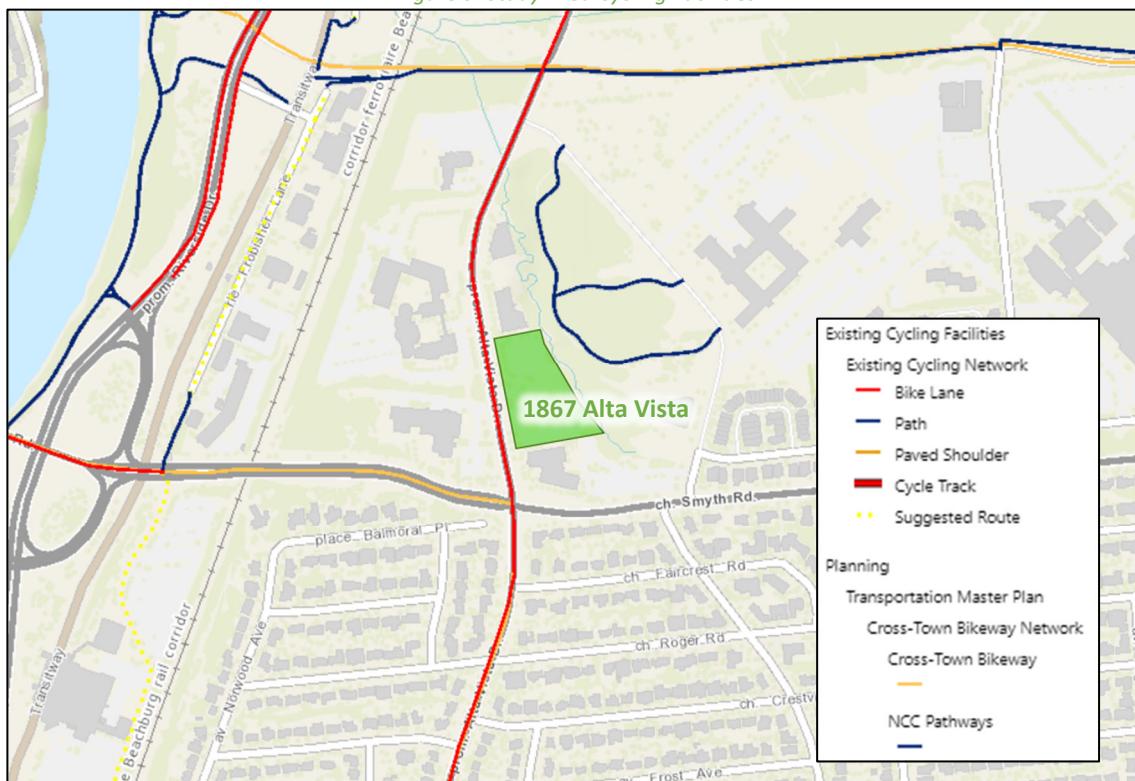
Bike lanes are provided on both sides of Alta Vista Drive and a cycling path is provided on the south side of Hospital Link Road east of Alta Vista Drive. Hospital Link Road, Alta Vista Drive south of Hospital Link Road, and Smyth Road west of Alta Vista Drive are cross-town bikeways.

Figure 4: Study Area Pedestrian Facilities



Source: <http://maps.ottawa.ca/geoOttawa/> Accessed: August 18, 2025

Figure 5: Study Area Cycling Facilities



Source: <http://maps.ottawa.ca/geoOttawa/> Accessed: August 18, 2025

Pedestrian and cyclist volumes included in study area intersection counts presented in Section 2.2.7, have been compiled and are illustrated in Figure 6 and Figure 7, respectively.

Figure 6: Existing Pedestrian Volumes

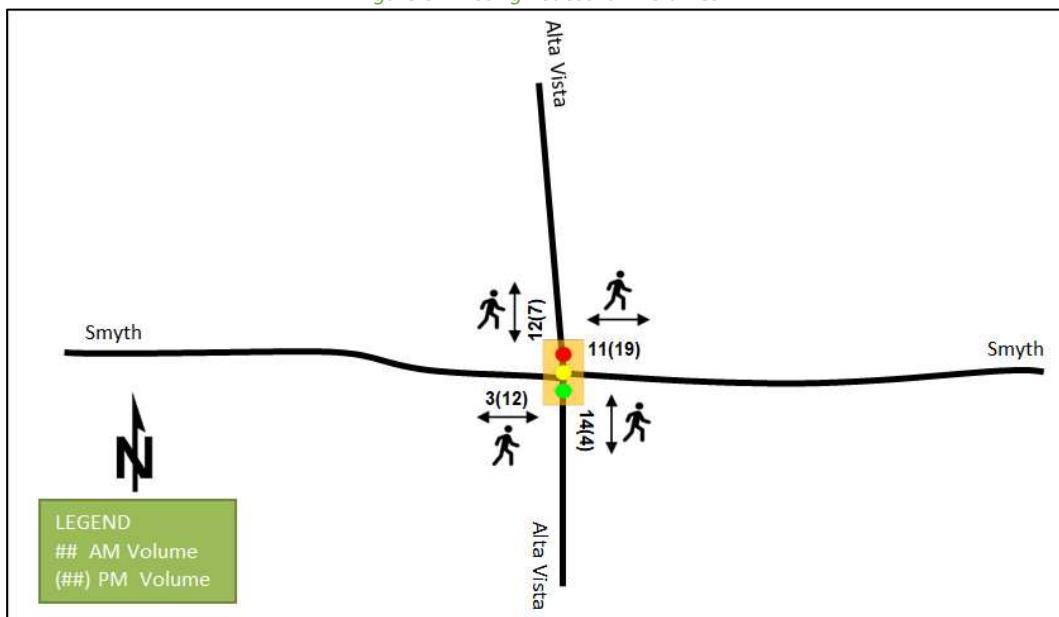
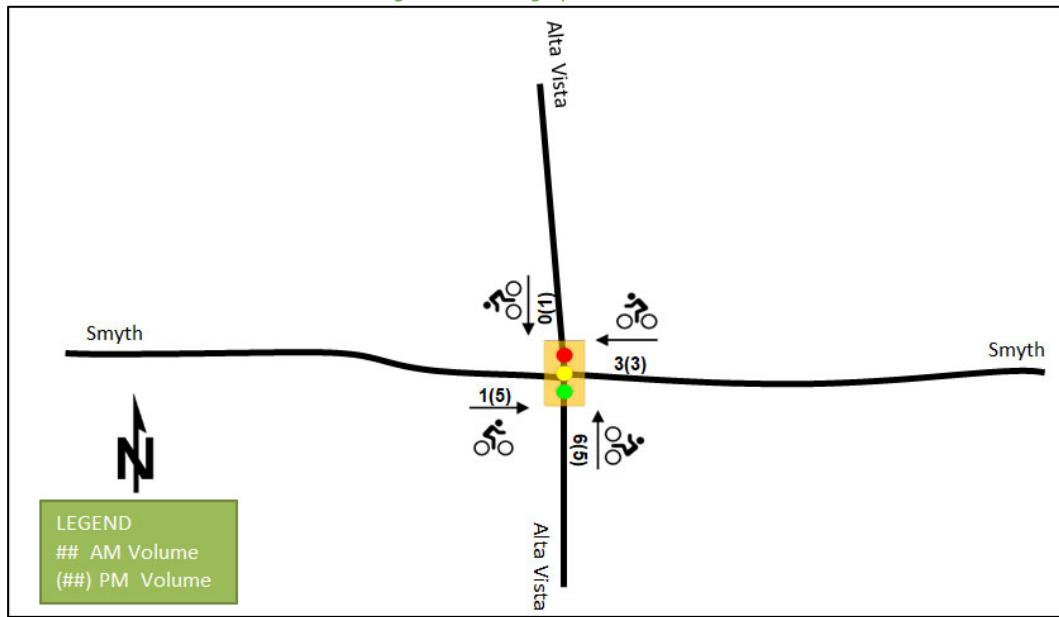


Figure 7: Existing Cyclist Volumes



2.2.5 Existing Transit

Figure 8 illustrates the transit system map in the study area and Figure 9 illustrates nearby transit stops. All transit information is from August 18, 2025, and is included for general information purposes and context to the surrounding area.

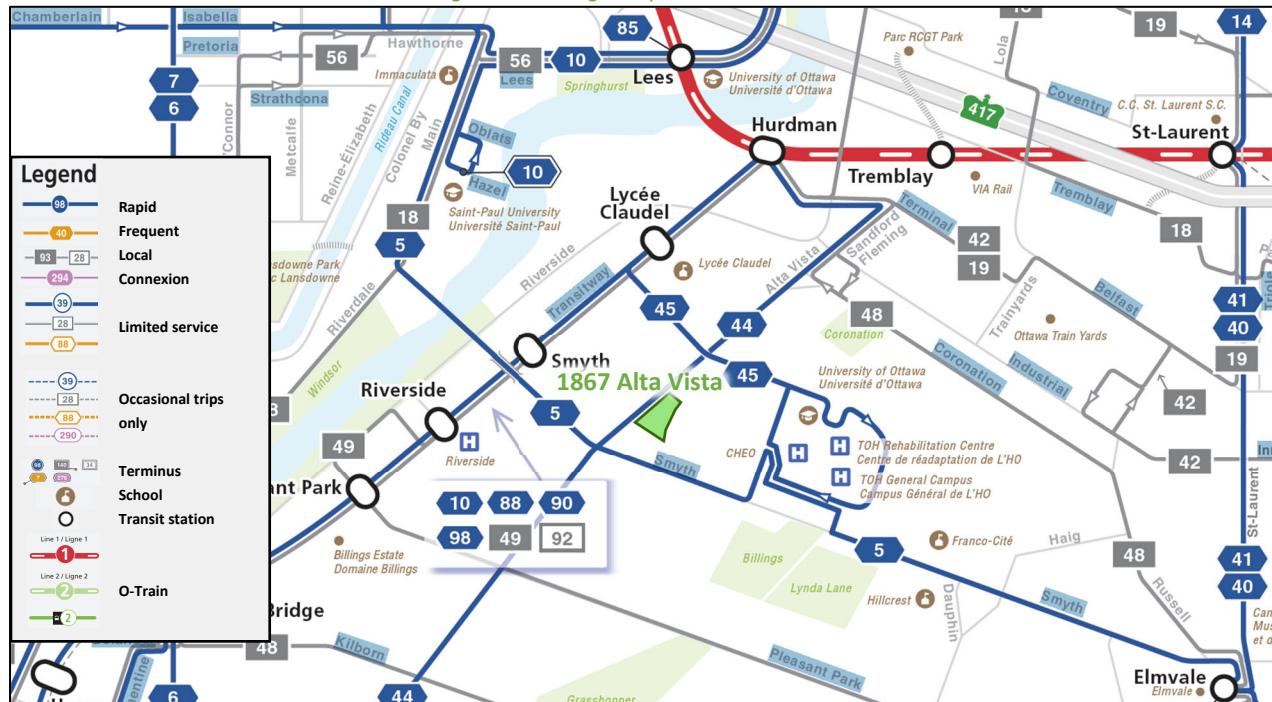
Within the study area, route #5 travels along Smyth Road, route #44 travels along Alta Vista Drive and route #45 travels along Hospital Link Road.

Stops within the study area are located at Smyth Road at Alta Vista Drive, Smyth Road at Valour Drive, Smyth Road at Fairbanks Avenue, Alta Vista Drive at Valour Drive, and Hospital Link Road at Alta Vista Drive.

The frequency of these routes within proximity of the proposed site based on August 18, 2025, service levels are:

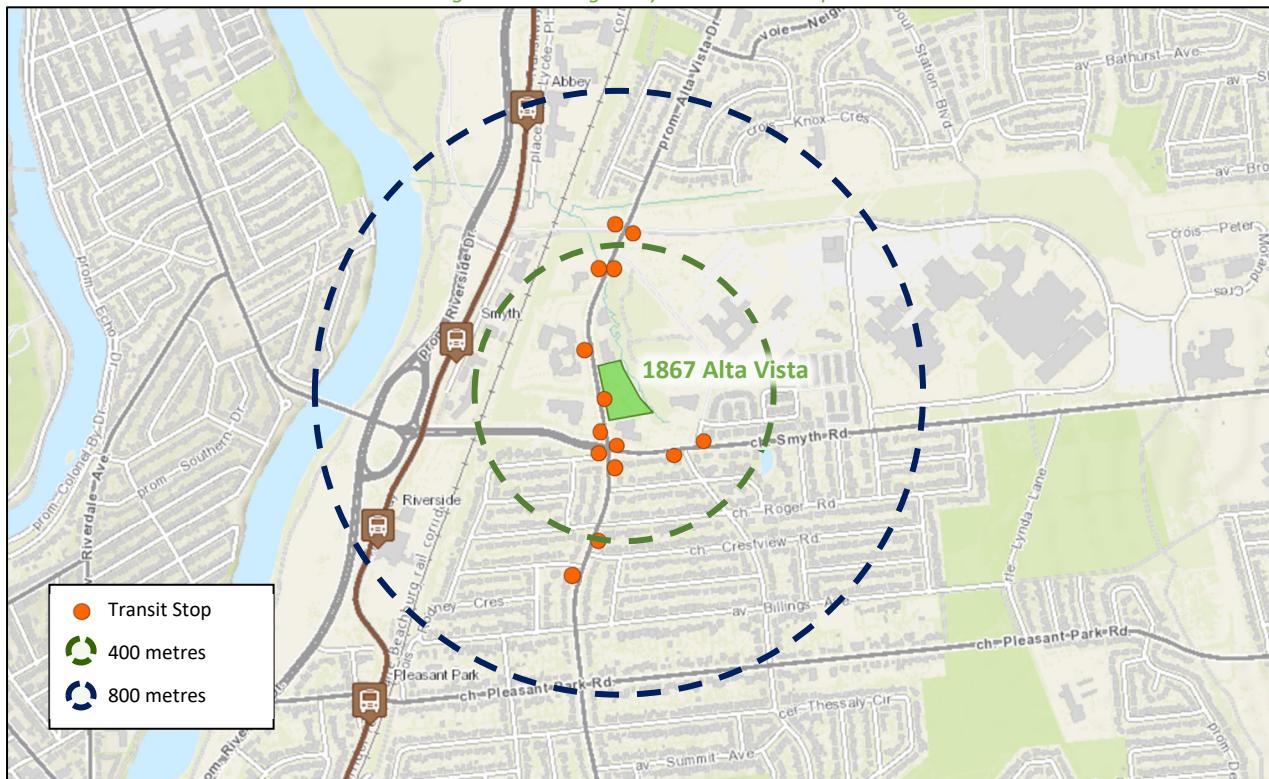
- Route #5 – Operates all day and 7 days a week, every 13-17 minutes during weekday peak periods, 15-30 minutes during weekday off-peak, and 30 minutes throughout the weekends
- Route #44 – Operates all day and 7 days a week, every 14-16 minutes or less on weekdays, and 15-30 minutes on weekends
- Route #45 – Quick station-to-station bus service, operates all day and 7 days a week, every 12-19 minutes or less on weekdays, and 30 minutes on weekends

Figure 8: Existing Study Area Transit Service



Source: <http://www.octranspo.com/> Accessed: August 18, 2025

Figure 9: Existing Study Area Transit Stops



Source: <http://www.octranspo.com/> Accessed: August 18, 2025

2.2.6 Existing Area Traffic Management Measures

Speed bumps are noted along the private section of Valour Drive, and no other existing area traffic management measures within the study area.

2.2.7 Existing Peak Hour Travel Demand

Existing turning movement counts were acquired from the City of Ottawa for the existing study area intersection. Table 1 summarizes the intersection count date.

Table 1: Intersection Count Date

| Intersection | Count Date |
|--------------------------------|----------------------------|
| Alta Vista Drive at Smyth Road | Wednesday, October 2, 2024 |

Figure 10 illustrates the existing traffic counts and Table 2 summarizes the existing intersection operations. The level of service for signalized intersections is based on volume to capacity ratio (v/c) calculations for individual lane movements and MMLOS Guidelines weighted v/c methodology for the overall intersection, per direction from Transportation Engineering Services, and average delay for unsignalized intersections. Detailed turning movement count data is included in Appendix B and the Synchro worksheets are provided in Appendix C.

Figure 10: Existing Traffic Counts

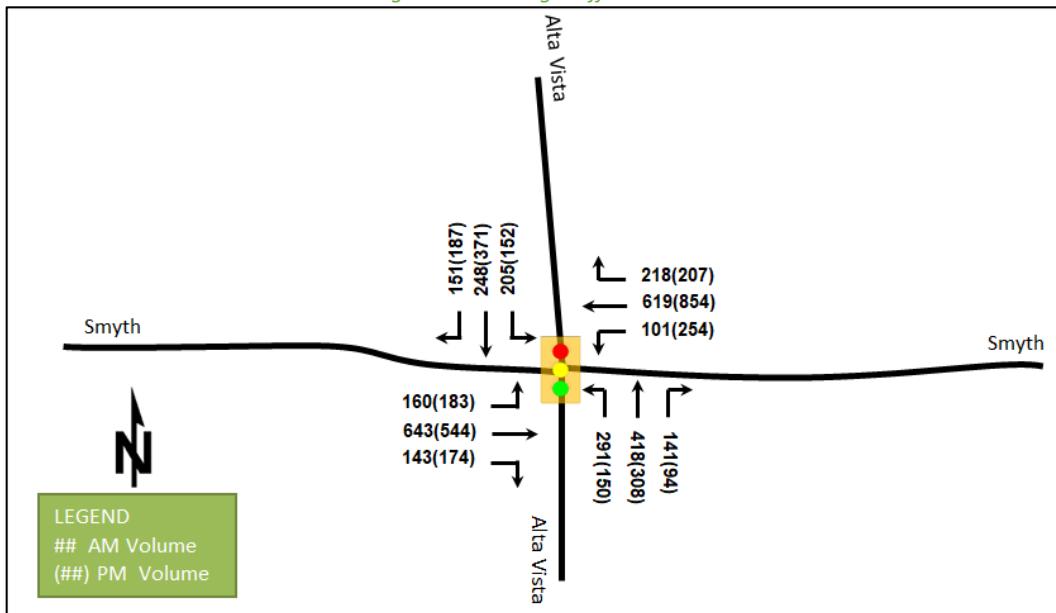


Table 2: Existing Intersection Operations

| Intersection | Lane | AM Peak Hour | | | | PM Peak Hour | | | |
|---|------|--------------|-------------|-------------|-----------------------|--------------|-------------|-------------|-----------------------|
| | | LOS | V/C | Delay (s) | Q (95 th) | LOS | V/C | Delay (s) | Q (95 th) |
| Alta Vista Drive & Smyth Road Signalized | EBL | B | 0.62 | 29.3 | 39.0 | D | 0.81 | 44.3 | #59.0 |
| | EBT | B | 0.69 | 38.6 | 96.4 | A | 0.55 | 33.2 | 76.6 |
| | EBR | A | 0.29 | 7.7 | 17.5 | A | 0.34 | 10.2 | 25.1 |
| | WBL | A | 0.44 | 24.8 | 25.6 | C | 0.71 | 26.8 | 53.4 |
| | WBT | C | 0.71 | 41.4 | 96.0 | C | 0.76 | 36.2 | 122.4 |
| | WBR | A | 0.48 | 17.2 | 41.5 | A | 0.38 | 11.8 | 32.4 |
| | NBL | D | 0.82 | 43.2 | #87.5 | D | 0.87 | 67.6 | #60.1 |
| | NBT | F | 1.02 | 89.0 | #173.4 | E | 0.91 | 73.1 | #129.8 |
| | NBR | A | 0.32 | 9.1 | 18.6 | A | 0.24 | 3.9 | 6.7 |
| | SBL | D | 0.88 | 61.5 | #78.8 | B | 0.68 | 40.2 | #43.9 |
| | SBT | B | 0.62 | 44.0 | 82.9 | E | 1.00 | 88.6 | #156.0 |
| | SBR | A | 0.35 | 10.3 | 21.4 | A | 0.46 | 16.3 | 33.9 |
| Overall | | D | 0.82 | 41.5 | - | D | 0.83 | 41.2 | - |

Notes: Saturation flow rate of 1800 veh/h/lane

Delay = average vehicle delay in seconds

Queue is measured in metres

m = metered queue

Peak Hour Factor = 0.90

= volume for the 95th %ile cycle exceeds capacity

The intersection of Alta Vista Drive at Smyth Road is forecast to operate with peak direction movements on Alta Vista Drive at or over theoretical capacity, but with residual capacity for the overall intersection.

During the AM peak hour, the northbound through movement is over theoretical capacity with high delays and queues, and queueing is additionally noted on the northbound left and southbound left movements. The overall intersection has residual capacity during the AM peak hour, and to reduce the v/c of the northbound through movement to 1.00 or below, one second of split would need to be reallocated from the eastbound and westbound through phases to the northbound and southbound through phases.

During the PM peak hour, the northbound through movement is approaching theoretical capacity with extended queues, the southbound through movement is at theoretical capacity with high delays and extended queues, and

extended queueing may additionally be exhibited by the eastbound left, northbound left, and southbound left movements.

It is assumed that the City is prioritizing the operation of the arterial Smyth Road with the supplied timing plan. During both peak hours, split beyond one second can be reallocated from the eastbound through and westbound through phases to the northbound through and southbound through phases to better balance the operations along both corridors, to the extent that this effect is desirable. Notwithstanding desired operations, capacity issues can be mitigated during both peak hours through signal timing adjustments.

2.2.8 Collision Analysis

Collision data have been acquired from the City of Ottawa open data website (data.ottawa.ca) for five years prior to the commencement of this TIA for the surrounding study area road network. Table 3 summarizes the collision types and conditions in the study area, Figure 11 illustrates the area collisions, and Table 4 summarizes the total collisions for each of the locations analyzed. Collision data are included in Appendix D.

Table 3: Study Area Collision Summary, 2018-2022

| | | Number | % |
|-------------------------------|-----------------------------|-----------|-------------|
| Total Collisions | | 57 | 100% |
| Classification | Fatality | 0 | 0% |
| | Non-Fatal Injury | 12 | 21% |
| | Property Damage Only | 45 | 79% |
| Initial Impact Type | Approaching | 1 | 2% |
| | Angle | 4 | 7% |
| | Rear end | 21 | 37% |
| | Sideswipe | 3 | 5% |
| | Turning Movement | 26 | 46% |
| | SMV Other | 2 | 4% |
| Road Surface Condition | Dry | 38 | 67% |
| | Wet | 8 | 14% |
| | Loose Snow | 2 | 4% |
| | Slush | 2 | 4% |
| | Packed Snow | 3 | 5% |
| | Ice | 4 | 7% |
| Pedestrian Involved | | 1 | 2% |
| Cyclists Involved | | 0 | 0% |

Figure 11: Study Area Collision Records

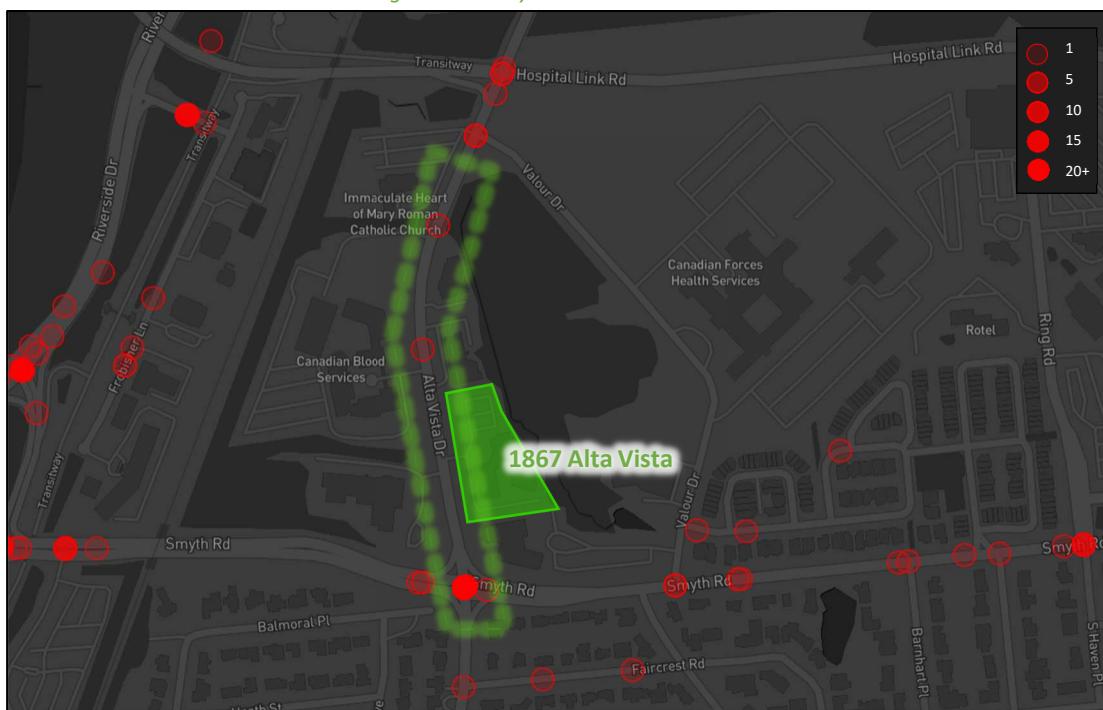


Table 4: Summary of Collision Locations, 2018-2022

| Intersections / Segments | Number | % |
|---|-----------|-------------|
| Alta Vista Dr at Smyth Rd | 57 | 100% |
| Alta Vista Dr between Smyth Rd & Valour Dr | 54 | 95% |
| | 3 | 5% |

Within the study area, the intersection of Alta Vista Drive at Smyth Road is noted to have experienced more than an average of two collisions per year. Table 5 summarizes the collision types and conditions for this intersection.

Table 5: Alta Vista Drive at Smyth Road Collision Summary

| Total Collisions | | Number | % |
|----------------------------|-----------------------------|--------|-----|
| Classification | Fatality | 0 | 0% |
| | Non-Fatal Injury | 11 | 20% |
| | Property Damage Only | 43 | 80% |
| Initial Impact Type | Angle | 4 | 7% |
| | Rear end | 20 | 37% |
| | Sideswipe | 3 | 6% |
| | Turning Movement | 26 | 48% |
| | SMV Other | 1 | 2% |
| Road Surface Condition | Dry | 36 | 67% |
| | Wet | 8 | 15% |
| | Loose Snow | 2 | 4% |
| | Slush | 2 | 4% |
| | Packed Snow | 2 | 4% |
| | Ice | 4 | 7% |
| Pedestrian Involved | | 1 | 2% |
| Cyclists Involved | | 0 | 0% |

The Smyth Road at Alta Vista Drive intersection had a total of 54 collisions during the 2018-2022 time period, with 43 involving property damage only and the remaining 11 having non-fatal injuries. The collision types are most represented by turning movement with 26 collisions, followed by rear end with 20, angle with four, sideswipe with three, and SMV (other) with one. Reviewing the trends in the available detailed collision data and applying professional judgment to draw inferences from them, turning movement collisions are more associated with eastbound and westbound left-turning vehicles in conflict with the conflicting eastbound and westbound through movements than the corresponding movements on the northbound and southbound approaches. Given the congestion, drivers may be pushing gaps in the opposing through traffic, which may be conceptually supported by these collisions clustering around peak hours, and by the statistic that of 20 out of 26 of these collisions involved property damage only.

It is noted that Smyth Road has both horizontal and vertical curvature in the vicinity of the intersection. While the geometric elements of the intersection and roadway cannot feasibly be mitigated, the City may wish to consider whether fully protected eastbound and westbound left-turn phases are desirable to mitigate this observed collision type. This treatment could be operationally supported with all movements able to achieve a v/c of 1.00 or less with signal timing adjustments considering the existing volumes, however queueing impacts of this phasing may include spillback beyond auxiliary lane storage lengths and periodic blockages of the adjacent through lane on the approaches. Ultimately, it is recommended that the City monitor this intersection through its road safety programs or via review of future traffic studies to determine the persistence of this existing trend to help inform its desired mitigation options, if any, for these conditions based on the findings of future City review.

Rear end collisions are typically associated with congested conditions. Weather conditions are not considered to affect collisions at this location.

One pedestrian collision involving a non-fatal injury was recorded on Thursday, November 11, 2021 at 7:56 in the morning in clear, dry, daylight conditions where a southbound left-turning driver was in conflict with a pedestrian. It is expected that the pedestrian was on the east crossing and that the collision happened during the permitted left turn phase. Based on congestion on the northbound through movement during the AM peak hour, it is possible that this collision was a result of a driver pushing a gap in the oncoming traffic stream when a pedestrian was crossing. The crosswalk already includes ladder markings, and the skew of the intersection provides a clearer sightline to the pedestrian crossing from the southbound left turn than at a typical, orthogonal intersection. Ultimately, a single event could not denote a pattern, and thus no normative statements can be made from this collision. Therefore, given the crossing conditions are adequate, no mitigations are recommended. No further review is required for collisions at this intersection.

2.3 Planned Conditions

2.3.1 Changes to the Area Transportation Network

2.3.1.1 *Transportation Master Plan (2025)*

The recently approved Transportation Master Plan includes a Capital Infrastructure Plan identifying transportation investments to support the forecasted growth and strategic connectivity and livability targets for the City. It also identifies committed projects, and a subset of priority projects that are expected to be implemented by 2046 based on current affordability assumptions. Area projects anticipated to impact travel in the study area that are included within the Capital Infrastructure Plan are:

- Active Transportation Network
 - Pedestrian Projects with Prioritization
 - Billings Avenue Sidewalk
 - Dale Park Pathway
 - Cycling Projects with Prioritization
 - Smyth and Rideau River Eastern Pathway Connection
- Transit Network
 - Priority Network
 - Transit Priority Corridors along:
 - Alta Vista Drive
 - Smyth Road
 - Hospital Link Road
 - Transportation and Infrastructure Corridor along Riverside Drive
 - Needs-Based Network
 - (No additional projects within the study area)
- Road Network
 - Priority Network
 - (No projects within the study area)
 - Needs-Based Network
 - Alta Vista Transportation Corridor

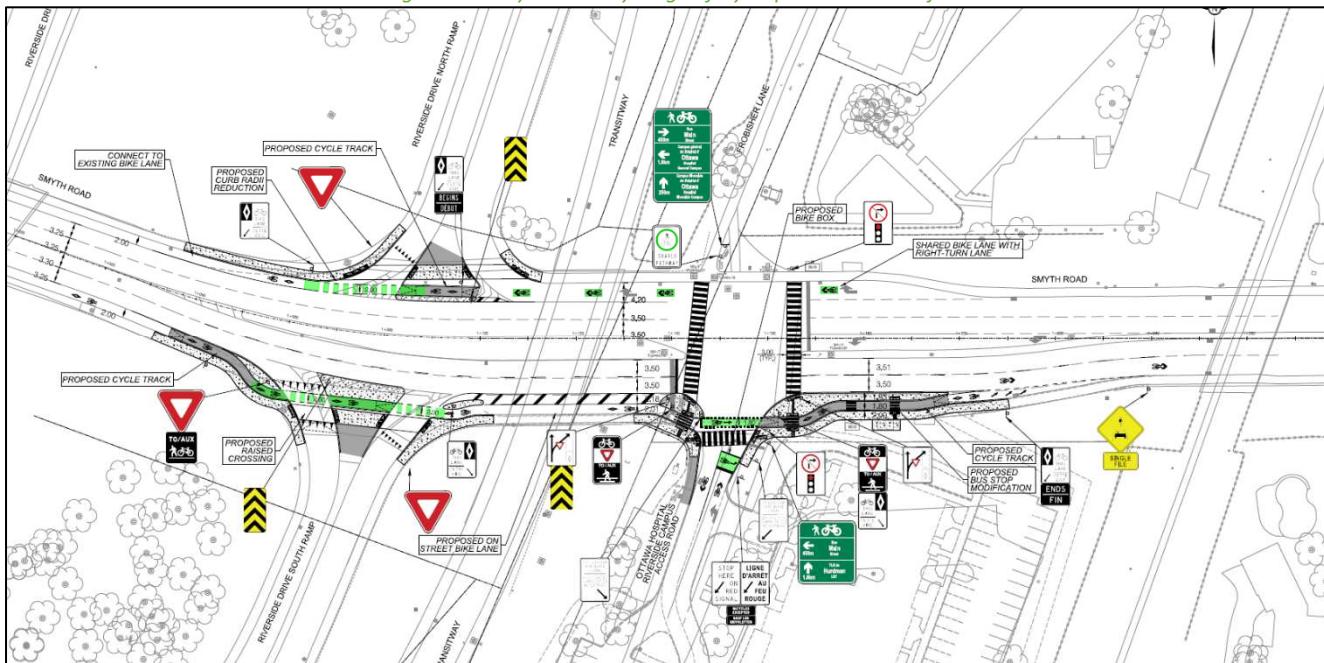
2.3.1.2 *Smyth Road Cycling Safety Improvements*

The Smyth Road Cycling Safety Improvements project is planned for implementation and proposes improvements southwest of the study area, including:

- Modifications to the Pleasant Park and Riverside Drive Intersection
- Modifications to the south end of Frobisher Lane (connection from on-road to off-road)
- Modifications to the south side of Pleasant Park Road at Rodney Crescent
- Modifications to improve connectivity on the west side of Rodney Crescent at the MUP connection
- Signalized Pedestrian Crossing (PXO) at Lynda Lane and Billings Avenue
- Pavement markings and signage to identify cycling route along Pleasant Park (Riverside Drive to Rodney Crescent), Rodney Crescent (Pleasant Park Road to Billings Avenue), Billings Avenue (Rodney Crescent to Lynda Lane), Lynda Lane Park MUP (Lynda Lane to Portage Avenue) and Portage Avenue (Lynda Lane Park MUP to Dauphin Road)

The proposed changes west of the study area are illustrated in Figure 12.

Figure 12: Smyth Road Cycling Safety Improvements Project



2.3.2 Other Study Area Developments

1919 Riverside Drive

The subject site is currently occupied by The Ottawa Hospital Riverside Campus' surface parking lots. The development concept proposes the replacement of these parking facilities with a continuing care facility comprising an eight-storey building with 256 long-term care beds and a 15-storey building with 270 retirement dwelling units, each structure connected by a town square building. The access configuration is noted to remove the existing link between its two signalized access intersections. The long-term care home is to be built-out in the first phase and the retirement home and town square connection to be built-out in the second phase, initially anticipated by 2026, although the first phase is presently still under construction. A total of 49 new AM and 68 new PM peak hour two-way vehicle trips are projected as a result of the proposed development.

Children's Hospital of Eastern Ontario (CHEO) Parking Garage

A parking garage will be constructed as a part of the Phase 1 1Door4Care (1D4C) hospital expansion located at 401 Smyth Road. The proposed parking garage is to be located on the northeast corner of the Ring Road (E-W) and Emergency Access Road Intersection which is currently occupied by a surface parking lot. The new parking garage is anticipated to replace existing surface parking lots and house 1,083 parking spaces in total. The existing demand for CHEO staff parking passes, and room within the new garage to accommodate them before the occupation of the new 1D4C building, was forecast to generate a total of 101 two-way new vehicle trips in both weekday AM and PM peak hours. The parking garage was built out in 2025.

3 Study Area and Time Periods

3.1 Study Area

The study area will include the intersection of Alta Vista Drive at Smyth Road. The intersection of Alta Vista Drive at Hospital Link Road is greater than 400 metres from the site centroid and therefore will not be included within the study.

The boundary road will be Alta Vista Drive and TRANS Screenline SL54 is along Hospital Link Road north of the study area and will not be analyzed as part of this study.

3.2 Time Periods

As the proposed development is composed entirely of residential units, the AM and PM peak hours will be examined.

3.3 Horizon Years

The anticipated build-out year is 2028. As a result, the full build-out plus five years horizon year is 2033.

4 Development-Generated Travel Demand

4.1 Mode Shares

Examining the mode shares recommended in the TRANS Trip Generation Manual (2020) for the subject district, derived from the most recent National Capital Region Origin-Destination survey (OD Survey), the existing average district mode shares by land use for Alta Vista have been summarized in Table 6.

Table 6: TRANS Trip Generation Manual Recommended Mode Shares – Alta Vista

| Travel Mode | Multi-Unit (High-Rise) | |
|----------------|------------------------|-------------|
| | AM | PM |
| Auto Driver | 38% | 45% |
| Auto Passenger | 12% | 16% |
| Transit | 41% | 28% |
| Cycling | 2% | 2% |
| Walking | 7% | 9% |
| Total | 100% | 100% |

4.2 Trip Generation

This TIA has been prepared using the vehicle and person trip rates for the residential dwellings using the TRANS Trip Generation Manual (2020). Table 7 summarizes the person trip rates for the proposed residential land use for each peak period.

Table 7: Trip Generation Person Trip Rates by Peak Period

| Land Use | Land Use Code | Peak Period | Person Trip Rates |
|----------------------|-------------------|-------------|-------------------|
| Multi-Unit High-Rise | 221 & 222 (TRANS) | AM | 0.80 |
| | | PM | 0.90 |

Using the above person trip rates, the total person trip generation has been estimated. Table 8 summarizes the total person trip generation for the residential land use.

Table 8: Person Trip Generation by Peak Period

| Land Use | Units | AM Peak Period | | | PM Peak Period | | |
|----------------------|-------|----------------|-----|-------|----------------|-----|-------|
| | | In | Out | Total | In | Out | Total |
| Multi-Unit High-Rise | 329 | 82 | 181 | 263 | 172 | 124 | 296 |

Using the above mode share targets and the person trip rates, the person trips by mode have been projected. Trip generation by peak hour has been forecasted using the prescribed peak period conversion factors presented in the TRANS Trip Generation Manual (2020) for the residential development. Table 9 summarizes the residential trip generation by mode and peak hour.

Table 9: Trip Generation by Mode

| Travel Mode | Mode Share | AM Peak Hour | | | PM Peak Hour | | | | |
|------------------------|----------------|--------------|-----|-------|--------------|------|-----|-------|-----|
| | | In | Out | Total | Mode Share | In | Out | Total | |
| Multi-Unit (High-Rise) | Auto Driver | 38% | 14 | 34 | 48 | 45% | 33 | 26 | 59 |
| | Auto Passenger | 12% | 5 | 11 | 15 | 16% | 12 | 9 | 21 |
| | Transit | 41% | 18 | 41 | 59 | 28% | 22 | 17 | 39 |
| | Cycling | 2% | 1 | 2 | 3 | 2% | 2 | 1 | 3 |
| | Walking | 7% | 3 | 7 | 10 | 9% | 8 | 6 | 14 |
| | Total | 100% | 41 | 95 | 135 | 100% | 77 | 59 | 136 |

As shown above, a total of 48 AM and 59 PM new peak hour two-way vehicle trips are projected as a result of the proposed development.

4.3 Trip Distribution

To understand the travel patterns of the subject development, the OD Survey has been reviewed to determine the travel for the residential development, and these patterns were applied based on the build-out of Alta Vista. Table 10 below summarizes the distributions.

Table 10: OD Survey Distribution – Alta Vista

| To/From | % of Trips |
|---------|------------|
| North | 20% |
| South | 25% |
| East | 25% |
| West | 30% |
| Total | 100% |

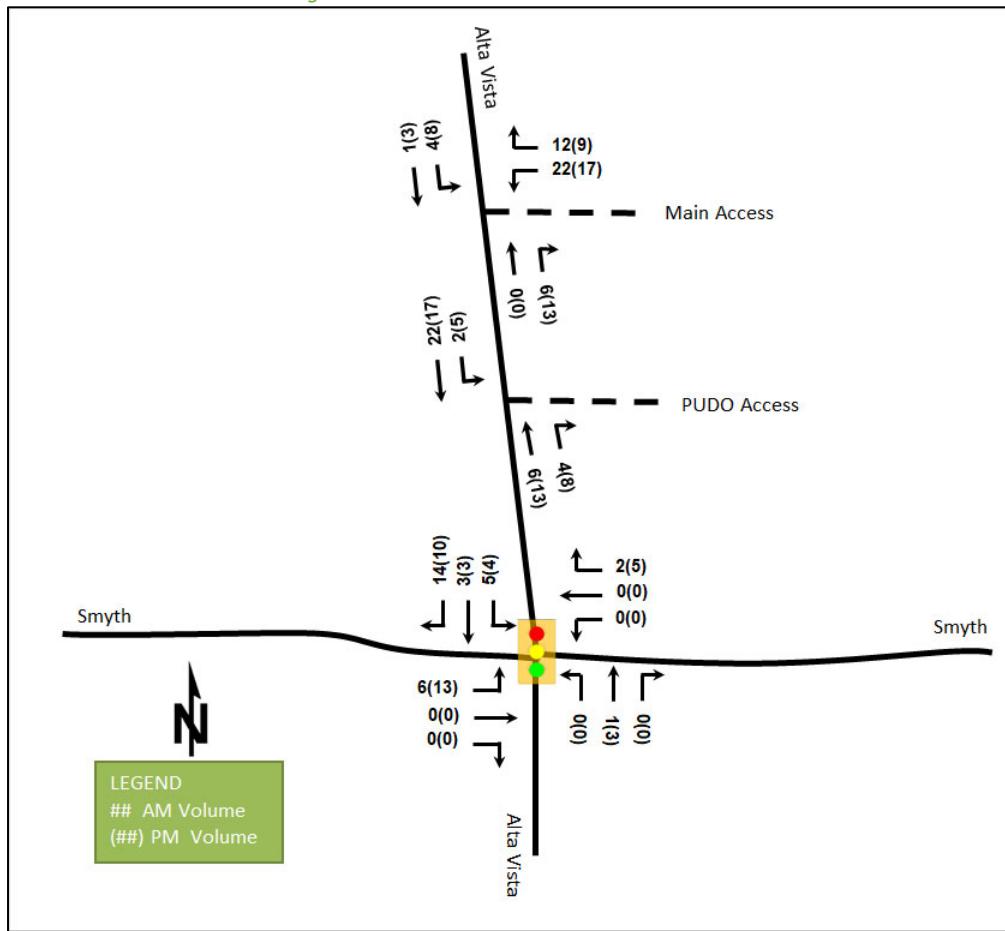
4.4 Trip Assignment

Using the distribution outlined above, turning movement splits, and access to major transportation infrastructure, the trips generated by the site have been assigned to the study area road network. Table 11 summarizes the proportional assignment to the study area roadways, and Figure 13 illustrates the new site generated volumes.

Table 11: Trip Assignment

| To/From | Via |
|---------|---|
| North | 10% Alta Vista Dr (N), 10% Smyth Rd (W) |
| South | 15% Smyth Rd (W), 10% Alta Vista Dr (S) |
| East | 10% Alta Vista Dr (N), 15% Smyth Rd (E) |
| West | 15% Smyth Rd (W), 15% Alta Vista Dr (N) |
| Total | 100% |

Figure 13: New Site Generation Auto Volumes



5 Exemption Review

Table 12 summarizes the exemptions for this TIA.

Table 12: Exemption Review

| Module | Element | Explanation | Exempt/Required |
|---|------------------------------|--|-----------------|
| Site Design and TDM | | | |
| Development Design | 4.1.2 Circulation and Access | Only required for site plan and zoning by-law applications | Required |
| | 4.1.3 New Street Networks | Only required for plans of subdivision | Exempt |
| Parking | 4.2.1 Parking Supply | Only required for site plan and zoning by-law applications | Required |
| Boundary Street Design | | All applications | Required |
| Transportation Demand Management | All Elements | Only required when the development generates more than 60 person-trips | Required |
| Network Impact | | | |
| Background Network Travel Demand | All Elements | Only required when one or more other Network Impact Modules are triggered when the | Exempt |

| Module | Element | Explanation | Exempt/Required |
|-------------------------------|-------------------------------------|--|--|
| | | development generates more than 75 auto or transit trips | |
| Demand Rationalization | | Only required when one or more other Network Impact Modules when the development generates more than 75 auto trips | Exempt |
| Neighbourhood Traffic Calming | 4.6.1 Adjacent Neighbourhoods | <p>If the development meets all of the following criteria along the route(s) site generated traffic is expected to utilize between an arterial road and the site's access:</p> <ol style="list-style-type: none"> 1. Access to Collector or Local; 2. "Significant sensitive land use presence" exists, where there is at least two of the following adjacent to the subject street segment: <ul style="list-style-type: none"> • School (within 250m walking distance); • Park; • Retirement / Older Adult Facility (i.e. long-term care and retirement homes); • Licensed Child Care Centre; • Community Centre; or • 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 vehicle volumes along the route by 50% or more. | Exempt |
| Transit | 4.7.1 Transit Route Capacity | Only required when the development generates more than 75 transit trips | Exempt |
| | 4.7.2 Transit Priority Requirements | Only required when the development generates more than 75 auto trips | Exempt |
| Network Concept | | Only required when proposed development generates more than 200 person-trips during the peak hour in excess of equivalent volume permitted by established zoning | Exempt |
| Intersection Design | 4.4.1-2/4.9.1 Intersection Control | Only required when the development generates more than 75 auto trips | Exempt |
| | 4.4.3/4.9.2 Intersection Design | Only required when the development generates more than 75 auto trips | Exempt – Access Intersection Design Required |

6 Development Design

6.1 Design for Sustainable Modes

The proposed development is a residential building with vehicle and bicycle parking located below grade. Hard surface connections are provided between the building entrances and the pedestrian facilities and bus stop along the frontage.

The infrastructure TDM Checklist is provided in Appendix E. Bus stops serving the local area routes at the intersection of Alta Vista Drive at Smyth Road are within a 400-metre walk of the site entrances, and Smyth Station is within a 950-metre walk of the main site entrance. No changes to the existing bus stop along the frontage are proposed.

6.2 Circulation and Access

Vehicular access is provided via a two-way driveway on the north side of the site, which provides access to the ramp to the parking levels, and a one-way (inbound) access to the south, which provides access to a drop-off loop which outlets onto the two-way aisle.

The one-way drive aisle is 3.6 metres wide, and short-term stopping spaces are provided within a 2.8-metre-wide layby on the south side of the one-way loop. The inbound only access' throat is to be designated a fire lane, with the firetruck entering in a forward manner and reversing out. Garbage collection will take place on-site. Move-ins and move-outs will be accommodated on site with a moving room at the north of the building. Turning templates are provided in Appendix F.

7 Parking

7.1 Parking Supply

The site provides 350 bicycle parking spaces on the first parking level below grade, and 216 vehicle parking spaces, including 186 spaces for residents and 30 spaces for visitors, across two parking levels below grade.

From the Zoning By-Law, as the site is within Area B on Schedule 1A, the minimum vehicle parking provision is 165 spaces for residents and 60 spaces for visitors, for a total of 225 vehicle spaces. The minimum Zoning By-Law bicycle parking provision is 165 bicycle spaces.

The site bicycle parking provision and minimum resident parking provision meet the minimum quantities from the Zoning By-Law. The visitor parking is 30 spaces below the minimum quantity from the Zoning By-Law. While this is nominally half of the required value, it is noted that this would be the quantity were the site located in Area X, Y, or Z on Zoning Schedule 1A. This target is supported by the proximity to rapid transit, being a 950 metre walk from the entrance to Smyth Station. Therefore, the proposed visitor vehicle parking rate is recommended to be approved.

8 Boundary Street Design

Table 13 summarizes the MMLOS analysis for the boundary street of Alta Vista Drive. The existing and future conditions for the street will be the same and are considered in one row. The boundary street analysis is based on the policy area of within 600 m of a rapid transit station. The MMLOS worksheets has been provided in Appendix G.

Table 13: Boundary Street MMLOS Analysis

| Segment | Pedestrian LOS | | Bicycle LOS | | Transit LOS | | Public Realm LOS | |
|------------------|----------------|--------|-------------|--------|-------------|--------|------------------|--------|
| | PLOS | Target | BLOS | Target | TLOS | Target | PRLOS | Target |
| Alta Vista Drive | C | A | C | A | B | C | B | B |

Alta Vista Drive does not meet the pedestrian and cycling MMLOS targets.

Pedestrian LOS is limited by the primarily by the vehicle volumes on the curb lane, however the posted speed limit of 50 km/h, and the distances between crossings on Alta Vista Drive further reduce scores beyond the base conditions of sidewalk width and separation from the vehicle lane otherwise being considered adequate.

Bicycle LOS is limited by the on-road facility, and to meet targets, a cycletrack would be required.

No changes to the public right-of-way along the site frontage are recommended. The existing sidewalk is appropriate to be retained given it meets City width requirements and cannot meet targets given other configurations, especially in the presence of mature trees within the boulevard. The bicycle lane is appropriate to be retained along the frontage, continuous with the facility north and south of the site.

9 Transportation Demand Management

9.1 Context for TDM

The mode shares used within the TIA represent the typical district mode shares. Overall, the modal shares are likely to be achieved and TDM measures should be provided to support transit uptake given the proximity to Symth Station.

The total bedroom count within the development is 432, across 73 bachelors, 163 one-bedroom units, 77 two-bedroom units, and 13 three-bedroom units. No age restrictions are noted for site users.

9.2 Need and Opportunity

The subject site has been assumed to rely predominantly on auto and transit travel, and those assumptions have been carried through the analysis. Given the low auto trip generation, negligible impacts are anticipated from a failure to meet target mode shares.

9.3 TDM Program

The “suite of post occupancy TDM measures” has been summarized in the TDM checklists for the residential land uses. The checklists are provided in Appendix E. The key TDM measures recommended include:

- Display local area maps with walking and cycling routes, and transit route information and schedules at major entrances
- Provide a multimodal travel option information package to new residents
- Inclusion of a 1-month Presto card for first time new townhome purchase and apartment rental, with a set time frame for this offer (e.g. 6-months) from the initial opening of the site
- Unbundle parking cost from purchase or rental costs

10 Intersection Design

10.1 Access Intersection Control

The southern site access is inbound only and the northern site access is proposed as having minor stop control on the access approach.

10.2 Intersection Design

The site is proposed as having two access onto Alta Vista Drive, the northern site access being two-way and permitting full movements, and a southern site access being one-way permitting all inbound movements. Relevant design criteria for the proposed accesses are detailed below and discussed in relation to relevant by-laws and design guidance.

10.2.1 Private Approach By-Law Provisions

10.2.1.1 *Number of Private Approaches*

The site is to be accessed by one two-way access and one one-way access. Given the site frontage is approximately 143 metres, the site is permitted one (1) two-way private approach in addition to either a second two-way private approach, or two (2) one-way private approaches. Therefore, the site is in compliance with this provision and could provide one additional one-way private approach. As such, the site is considered to be limiting access onto Alta Vista, which is a Crosstown Bikeway.

10.2.1.2 *Location and Spacing of Private Approaches*

The accesses are spaced approximately 63 metres apart, and the southern access is approximately 110 metres from the nearest intersecting street, Smyth Road. The northern access is approximately eight metres from the northern property line, and the southern access is approximately 60 metres from the south property line.

Given Alta Vista Drive is a major collector road and the site is proposed as including 216 parking spaces, the site accesses are required to be spaced 45 metres apart and 45 metres from the nearest intersecting street. Additionally, private approaches are required to be 3.0 metres from the adjacent property line. Therefore, the site is in compliance with these provisions from the Private Approach By-Law.

10.2.1.3 *Width of Private Approaches*

The northern private approach is 6.7-metres-wide, and the curb radii are approximately 3.25 metres on the north side of the access and approximately 5.0 metres on the south side of the access. The southern private approach is 6.0-metres-wide to permit a fire lane, and the radii are approximately 5.25 on the north side and 4.75 metres on the south side of the access.

The resulting widths of the northern access are 6.9 metres at the street (right-of-way) line and 12.7 metres at the curb line, and of the southern access are 6.0 metres at the street (right-of-way) line and 9.1 metres at the curb line.

The Private Approach By-Law states that no two-way access shall exceed 9.0 metres at the street line and at the curb line, and that no one-way access shall exceed 7.5 metres at the street line and at the curb line. The application at the curb line is not consistent with typical applications of the minimum aisle widths combined with curb radii permitting garbage truck access and considering the application of SC 7.1. The accesses are in compliance with these maximum widths at the street line however, and these access width and radius values are recommended to be approved.

10.2.2 TAC Suggested Design Criteria

10.2.2.1 *Access Corner Clearance*

The southern access is approximately 125 metres from the Smyth Road roadway.

Per the Geometric Design Guide for Canadian Roads (TAC, 2017), the suggested minimum corner clearance on the undivided departure of Alta Vista Drive's intersection with Smyth Road is 55 metres, given the collector road designation of Alta Vista Drive. Therefore, the proposed offset meets this suggested minimum value.

10.2.2.2 Access Throat Length

At the main site access, the site provides approximately 8.1 metres of clear throat from the point of tangency of the curb return to the first point of conflict on-site of the intersecting one-way drive aisle. Beyond this point, the next point of conflict along the access is the garage ramp is a further 20.7 metres into the site. Additionally of note, an additional 2.5 metres of space is provided between the back of the sidewalk along Alta Vista Drive and the point of tangency of the curb return.

According to the TAC manual, the suggested minimum clear throat for accesses onto collector roads to apartment complexes of over 200 units is 25 metres.

It is noted that the first point of conflict is the aisle's intersection with the one-way drop-off loop outlet. This conflict is proposed as being controlled with priority given to the two-way garage access aisle. Therefore, this nominal point of conflict is not anticipated to be associated with blockages of the aisle, and therefore, the available throat would exceed this suggested minimum value. However, in the case that a blockage were to occur, space for one vehicle in the access throat would be available. Based on having multiple accesses permitting inbound movements, the averaged arrival rate based on the forecasted peak hour vehicle volumes of one vehicle every three to six minutes. Given this arrival rate and the rarity of the blockage of the free flow aisle from the outlet of the drop-off loop, this throat is considered adequate and is recommended to be approved.

At the one-way drop-off loop access, the site provides approximately 9.2 metres of clear throat from the point of tangency of the curb return to the first point of conflict on-site of the first parking space within the layby. Based on the multiple accesses, and the averaged arrival rate based on the forecasted peak hour vehicle volumes of one vehicle every four-and-a-half to ten minutes, this throat length, permitting a single vehicle to queue off the roadway is considered adequate and this condition is recommended to be approved.

10.2.3 Recommended Design Elements

The site accesses are proposed are recommended to conform to City Standard SC7.1 with a continuous sidewalk through the access with depressed curb radii tying into the roadway curbs on tangent.

11 Summary of Improvements Indicated and Modifications Options

The following summarizes the analysis and results presented in this TIA report:

Proposed Site and Screening

- The proposed site includes a nine-storey residential building comprising 329 dwelling units
- Site access is proposed via a two-way full-movement access on the north side of the site and a one-way inbound access to a drop-off loop central to the parcel
- The development is anticipated to be completed as a single phase by 2028

TIA Screening and Exemptions

- The TIA Screening form indicated a full TIA was required due to trip generation, location, and safety triggers
- The exemption review for the TIA indicated that the following modules and elements were not required: new street networks, background network travel demand, demand rationalization, neighbourhood traffic calming review, transit review, network concept review, network intersection control review or network intersection design review

Existing Conditions

- Smyth Road is an arterial road, and Alta Vista Drive is a collector road in the study area
- Sidewalks/MUPS are generally provided on both sides of the study area roadways, and on-street bike lanes on both sides of the roadway on Alta Vista Drive
- The high volumes roadways have produced a high number of collisions at the study area intersections, primarily at the Alta Vista Dr at Smyth Rd intersection where the collisions are predominantly rear end collisions which may be influenced by congestion and turning movement which may be influenced by congestion on the eastbound and westbound approaches coupled with intersection geometry, where it is recommended the City evaluate whether fully protected left turns would be beneficial on these approaches
- Capacity issues are noted on the northbound through movement during AM peak hour, however these can be mitigated through signal timing adjustments

Planned Conditions

- Alta Vista Drive, Smyth Road, and Hospital Link Road are transit priority corridors in the TMP priority transit network.
- Planned active transportation improvements in the area include pedestrian and cycling projects with prioritization in the surrounding neighbourhoods, along with the Smyth Road Cycling Safety Improvements project

Development Generated Travel Demand

- The proposed development is forecasted to produce 135 two-way people trips during the AM peak hour and 136 two-way people trips during the PM peak hour
- Of the forecasted people trips, 48 two-way trips will be vehicle trips during the AM peak hour and 59 two-way trips will be vehicle trips during the PM peak hour based on a 38%-45% auto modal share target
- Of the forecasted trips, 20% are anticipated to travel north, 30 % to the west, and 25% to both the east and south

Development Design

- The bike and auto parking areas are to be located in parking levels below grade
- Pedestrian connections will be made from the building entrances to the sidewalk on Alta Vista Drive providing access to the wider pedestrian network and the bus stop along the site frontage
- The two-way driveway on the north side of the site provides access to the ramp to the parking levels, and the one-way (inbound) access to the south provides access to a drop-off loop which outlets onto the two-way aisle
- A fire route is to be designated on the throat of the inbound only access, and garbage collection and the moving vehicles will be accommodated on-site

Parking

- The site will have 216 vehicle parking spaces along with 350 bicycle parking spaces
- Bicycle parking and resident vehicle parking meeting Zoning By-law minimums
- The visitor vehicle parking is 30 below Zoning By-Law minimums for the given location within the City, however a reduction to the required value of 30 spaces in nearby areas of the City is supported by the proximity to rapid transit and no area impacts are anticipated from this theoretical deficit

Boundary Street Design

- The boundary streets will not meet pedestrian MMLOS targets, due to vehicle volumes on the curb lane and distances between crossings along Alta Vista Drive and auto volumes and/or posted speed limits
- The boundary streets will not meet bicycle MMLOS targets, due to the cycling facility being located on-road
- Due to the issues limiting the ability to meet the MMLOS targets, the consistency with the continuous facilities along Alta Vista Drive, and the presence of mature street trees, no improvements to the public right-of-way along the site frontage are recommended as part of this study

TDM

- Supportive TDM measures to be included within the proposed development should include:
 - Display local area maps with walking and cycling routes, and transit route information and schedules at major entrances
 - Provide a multimodal travel option information package to new residents
 - Inclusion of a 1-month Presto card for first time new townhome purchase and apartment rental, with a set time frame for this offer (e.g. 6-months) from the initial opening of the site
 - Unbundle parking cost from purchase or rental costs

Intersection Design

- The site accesses generally meet the Private Approach By-Law provisions, limiting the access onto the Alta Vista Crosstown Bikeway, and generally meets the suggested minimum design values from TAC
- The throat lengths are considered to be adequate given the expected traffic as well as the priority of the drive aisle at the main access, and based on the expected traffic at the one-way access
- The site accesses are proposed to conform to City Standard SC7.1 with a continuous sidewalk through the access with depressed curb radii tying into the roadway curbs on tangent

12 Conclusion

It is recommended that, from a transportation perspective, the proposed development applications proceed.

Prepared By:



John Kingsley, BEng
Transportation Engineering-Intern

Reviewed By:



Christopher Gordon, P.Eng.
Senior Transportation Engineer

Appendix A

TIA Screening Form and PM Certification Form

City of Ottawa 2023 Revisions to 2017 TIA Guidelines
 Step 1 - Screening Form

 Date: 26-Aug-25
 Project Number: 2025-050
 Project Reference: 1867 Alta Vista

| 1.1 Description of Proposed Development | |
|---|---|
| Municipal Address | 1867 Alta Vista Drive |
| Description of Location | 1.21 ha parcel on east side of Alta Vista Dr, approximately 50 m north of Smyth Rd |
| Land Use Classification | Business Park Industrial |
| Development Size | Two mid-rise buildings comprising 383 Dwelling Units |
| Accesses | One full-moves access on Alta Vista Dr |
| Phase of Development | Single |
| Buildout Year | 2028 |
| TIA Requirement | Full TIA Required |

| 1.2 Trip Generation Trigger | |
|-----------------------------|--------------------------|
| Land Use Type | Multi-Family (High-Rise) |
| Development Size | 383 Units |
| Trip Generation Trigger | Yes |

| 1.3 Location Triggers | |
|--|-----|
| Does the development propose a new driveway to a boundary street that is designated as part of the Transit Priority Network, Rapid Transit network or Cross-Town Bikeways? | Yes |
| Is the development in a Hub, a Protected Major Transit Station Area (PMTSA), or a Design Priority Area (DPA)? | No |
| Location Trigger | Yes |

| 1.4. Safety Triggers | |
|---|-----|
| Are posted speed limits on a boundary street 80 km/hr or greater? | No |
| Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway? | No |
| 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)? | Yes |
| Is the proposed driveway within auxiliary lanes of an intersection? | Yes |
| Does the proposed driveway make use of an existing median break that serves an existing site? | No |
| Is there a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development? | No |
| Does the development include a drive-thru facility? | No |
| Safety Trigger | Yes |



Certification Form for TIA Study PM

TIA Plan Reports

On April 14, 2022, the Province's Bill 109 received Royal Assent providing legislative direction to implement the More Homes for Everyone Act, 2022 aiming to increase the supply of a range of housing options to make housing more affordable. Revisions have been made to the TIA guidelines to comply with Bill 109 and streamline the process for applicants and staff.

Individuals submitting TIA reports will be responsible for all aspects of development-related transportation assessment and reporting, and undertaking such work, in accordance and compliance with the City of Ottawa's Official Plan, the Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines.

By submitting the attached TIA report (and any associated documents) and signing this document, the individual acknowledges that they meet the four criteria listed below.

CERTIFICATION

I have reviewed and have a sound understanding of the objectives, needs and requirements of the City of Ottawa's Official Plan, Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines; (Update effective July 2023)

I have a sound knowledge of industry standard practice with respect to the preparation of transportation impact assessment reports, including multi modal level of service review;

I have substantial experience (more than 5 years) in undertaking and delivering transportation impact studies (analysis, reporting and geometric design) with strong background knowledge in transportation planning, engineering or traffic operations; and

I am either a licensed or registered¹ professional in good standing, whose field of expertise

- is either transportation engineering
- or transportation planning.

¹ License of registration body that oversees the profession is required to have a code of conduct and ethics guidelines that will ensure appropriate conduct and representation for transportation planning and/or transportation engineering works.

Dated at Ottawa this 17 day of August, 20 23.
(City)

Name : Andrew Harte

Professional title: Senior Transportation Engineer / Vice-President Ottawa



Signature of individual certifier that s/he/they meet the above criteria

Office Contact Information (Please Print)

Address: 6 Plaza Court

City / Postal Code: Ottawa, K2H 7W1

Telephone / Extension: 613-697-3797

Email Address: andrew.harte@cghtransportation.com

Stamp



Revision Date: June 2023

Appendix B

Turning Movement Counts



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

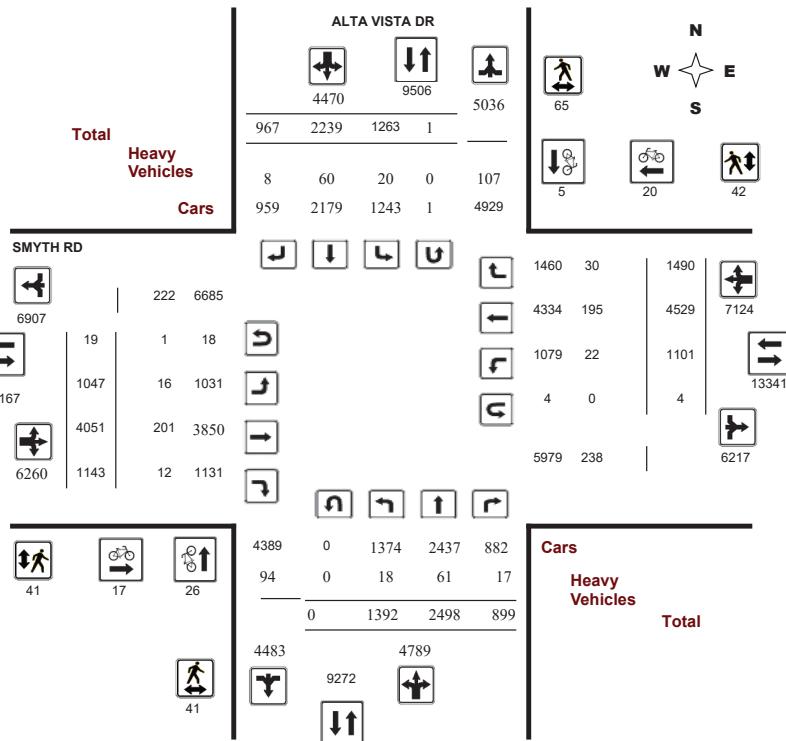
Survey Date: Wednesday, October 02, 2024

Start Time: 07:00

WO No: 42262

Device: Miovision

Full Study Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

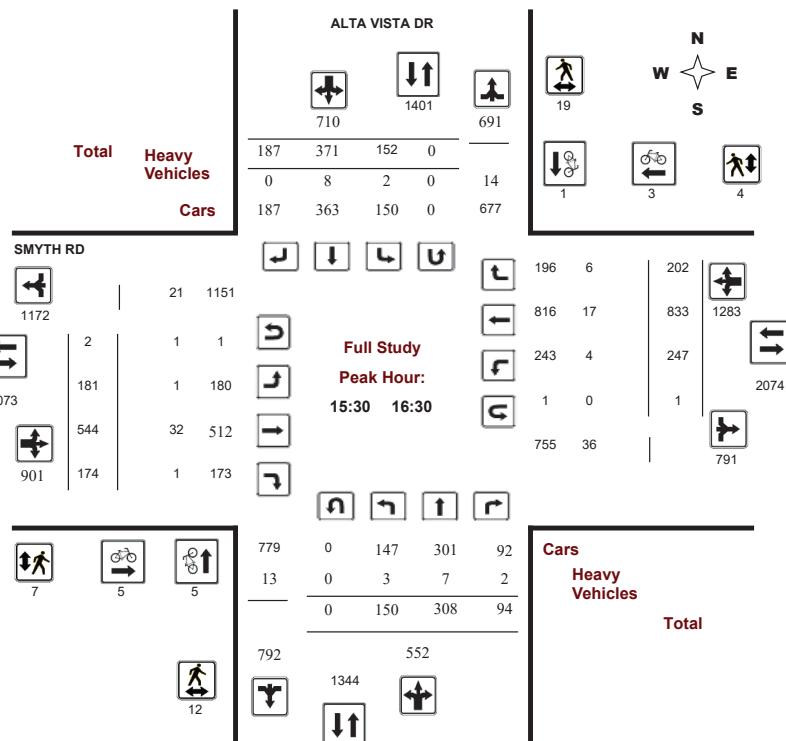
Survey Date: Wednesday, October 02, 2024

Start Time: 07:00

WO No: 42262

Device: Miovision

Full Study Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Wednesday, October 02, 2024

Total Observed U-Turns

AADT Factor

| | | |
|---------------|---------------|-----|
| Northbound: 0 | Southbound: 1 | .90 |
| Eastbound: 19 | Westbound: 4 | |

| ALTA VISTA DR | | | | | | | | | | | | | | | SMYTH RD | | | | | | | | | | | | | | |
|------------------|------------|------|------|------------|------|------|-----------|-----------|------------|-----------|------|------|-----------|------------|----------------|------|------|-------|-------|--|--|--|--|--|--|--|--|--|--|
| Period | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | WB TOT | STR TOT | Grand Total | | | | | | | | | | | | | | |
| | LT | ST | RT | NB TOT | LT | ST | RT | SB TOT | STR TOT | LT | ST | RT | | | | | | | | | | | | | | | | | |
| 07:00 08:00 | 232 | 258 | 162 | 652 | 154 | 154 | 79 | 387 | 1039 | 90 | 677 | 61 | 828 | 77 | 612 | 146 | 835 | 1663 | 2702 | | | | | | | | | | |
| 08:00 09:00 | 262 | 423 | 147 | 832 | 211 | 269 | 148 | 628 | 1460 | 179 | 591 | 141 | 911 | 101 | 586 | 231 | 918 | 1829 | 3289 | | | | | | | | | | |
| 09:00 10:00 | 195 | 347 | 111 | 653 | 158 | 217 | 94 | 469 | 1122 | 126 | 541 | 106 | 773 | 114 | 473 | 173 | 760 | 1533 | 2655 | | | | | | | | | | |
| 11:30 12:30 | 149 | 237 | 90 | 476 | 130 | 270 | 78 | 478 | 954 | 98 | 415 | 135 | 648 | 109 | 437 | 187 | 733 | 1381 | 2335 | | | | | | | | | | |
| 12:30 13:30 | 107 | 286 | 112 | 505 | 162 | 265 | 108 | 535 | 1040 | 97 | 412 | 155 | 664 | 108 | 389 | 165 | 662 | 1326 | 2366 | | | | | | | | | | |
| 15:00 16:00 | 131 | 324 | 121 | 576 | 155 | 370 | 179 | 704 | 1280 | 143 | 462 | 168 | 773 | 242 | 785 | 216 | 1243 | 2016 | 3296 | | | | | | | | | | |
| 16:00 17:00 | 146 | 352 | 75 | 573 | 148 | 355 | 160 | 663 | 1236 | 202 | 582 | 206 | 990 | 198 | 720 | 211 | 1129 | 2119 | 3355 | | | | | | | | | | |
| 17:00 18:00 | 170 | 271 | 81 | 522 | 145 | 339 | 121 | 605 | 1127 | 112 | 371 | 171 | 654 | 152 | 527 | 161 | 840 | 1494 | 2621 | | | | | | | | | | |
| Sub Total | 1392 | 2498 | 899 | 4789 | 1263 | 2239 | 967 | 4469 | 9258 | 1047 | 4051 | 1143 | 6241 | 1101 | 4529 | 1490 | 7120 | 13361 | 22619 | | | | | | | | | | |
| U Turns | | | 0 | | | 1 | 1 | | | 19 | | | | 4 | 23 | 24 | | | | | | | | | | | | | |
| Total | 1392 | 2498 | 899 | 4789 | 1263 | 2239 | 967 | 4470 | 9259 | 1047 | 4051 | 1143 | 6260 | 1101 | 4529 | 1490 | 7124 | 13384 | 22643 | | | | | | | | | | |
| EQ 12Hr | 1935 | 3472 | 1250 | 6657 | 1756 | 3112 | 1344 | 6213 | 12870 | 1455 | 5631 | 1589 | 8701 | 1530 | 6295 | 2071 | 9902 | 18604 | 31474 | | | | | | | | | | |

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

1.39

AVG 12Hr 1742 3125 1125 5991 1580 3669 1585 5592 11583 1310 5068 1430 7831 1377 5666 1864 8912 16744 28327

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

.90

AVG 24Hr 2282 4094 1474 7848 2070 4806 2076 7326 15174 1716 6639 1873 10259 1804 7422 2442 11675 21935 37108

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

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

| Time Period | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | E TOT | LT | ST | RT | W TOT | STR TOT | Grand Total | |
|-------------|------------|------|------|------------|------|------|-----------|----------|------------|-----------|------|------|----------|------|------|------|----------|------------|----------------|--------|
| | N TOT | LT | ST | TOT | LT | ST | RT | S TOT | STR TOT | LT | ST | RT | | | | | | | | |
| 07:00 | 36 | 39 | 38 | 113 | 33 | 31 | 16 | 80 | 314 | 14 | 163 | 12 | 189 | 8 | 108 | 17 | 133 | 314 | 515 | |
| 07:15 | 47 | 49 | 43 | 139 | 35 | 28 | 18 | 81 | 386 | 27 | 171 | 10 | 209 | 22 | 156 | 30 | 208 | 386 | 637 | |
| 07:30 | 66 | 70 | 30 | 166 | 32 | 50 | 12 | 94 | 482 | 23 | 144 | 16 | 183 | 16 | 193 | 47 | 256 | 482 | 699 | |
| 07:45 | 47 | 62 | 22 | 131 | 33 | 105 | 25 | 163 | 601 | 32 | 75 | 43 | 150 | 36 | 127 | 29 | 192 | 601 | 636 | |
| 08:00 | 83 | 100 | 51 | 234 | 54 | 45 | 33 | 132 | 643 | 26 | 199 | 23 | 248 | 31 | 155 | 52 | 238 | 643 | 852 | |
| 08:15 | 88 | 107 | 25 | 220 | 44 | 60 | 33 | 137 | 661 | 37 | 130 | 32 | 200 | 21 | 142 | 47 | 210 | 661 | 767 | |
| 08:30 | 70 | 104 | 39 | 213 | 51 | 60 | 40 | 151 | 682 | 44 | 159 | 43 | 246 | 23 | 159 | 44 | 226 | 682 | 836 | |
| 08:45 | 50 | 107 | 26 | 183 | 56 | 83 | 45 | 184 | 748 | 49 | 139 | 41 | 229 | 26 | 163 | 75 | 264 | 748 | 860 | |
| 09:00 | 54 | 105 | 57 | 216 | 60 | 66 | 30 | 156 | 713 | 49 | 163 | 25 | 239 | 31 | 122 | 65 | 218 | 713 | 829 | |
| 09:15 | 52 | 106 | 33 | 191 | 44 | 56 | 35 | 135 | 655 | 51 | 164 | 22 | 237 | 31 | 120 | 63 | 215 | 655 | 778 | |
| 09:30 | 51 | 105 | 25 | 181 | 46 | 63 | 26 | 135 | 630 | 29 | 122 | 34 | 186 | 29 | 125 | 54 | 208 | 630 | 710 | |
| 09:45 | 55 | 72 | 32 | 159 | 28 | 41 | 17 | 86 | 464 | 28 | 137 | 21 | 187 | 28 | 107 | 29 | 164 | 464 | 596 | |
| 10:00 | 37 | 64 | 21 | 122 | 40 | 57 | 16 | 113 | 456 | 18 | 118 | 29 | 166 | 26 | 121 | 27 | 174 | 456 | 575 | |
| 11:45 | 35 | 63 | 20 | 64 | 18 | 102 | 28 | 100 | 33 | 162 | 35 | 97 | 46 | 178 | 489 | 560 | | | | |
| 11:45 | 34 | 63 | 30 | 127 | 44 | 61 | 23 | 128 | 506 | 21 | 106 | 31 | 158 | 29 | 109 | 46 | 184 | 506 | 597 | |
| 12:00 | 41 | 53 | 15 | 109 | 40 | 76 | 21 | 137 | 509 | 25 | 90 | 38 | 153 | 16 | 92 | 55 | 163 | 509 | 562 | |
| 12:15 | 39 | 58 | 25 | 122 | 26 | 69 | 16 | 112 | 488 | 24 | 119 | 33 | 177 | 29 | 139 | 40 | 208 | 488 | 619 | |
| 12:30 | 37 | 84 | 26 | 147 | 56 | 70 | 30 | 156 | 581 | 22 | 104 | 34 | 161 | 25 | 106 | 43 | 174 | 581 | 638 | |
| 12:45 | 33 | 112 | 34 | 72 | 28 | 134 | 28 | 122 | 44 | 196 | 23 | 105 | 45 | 173 | 516 | | | | | |
| 13:15 | 28 | 69 | 29 | 126 | 31 | 66 | 20 | 117 | 508 | 24 | 114 | 39 | 179 | 32 | 93 | 35 | 160 | 508 | 582 | |
| 15:00 | 37 | 87 | 28 | 152 | 38 | 69 | 48 | 155 | 656 | 32 | 109 | 46 | 187 | 52 | 207 | 63 | 322 | 656 | 816 | |
| 15:15 | 30 | 91 | 40 | 161 | 39 | 106 | 42 | 187 | 753 | 34 | 116 | 45 | 195 | 60 | 161 | 69 | 292 | 753 | 835 | |
| 15:30 | 33 | 81 | 32 | 146 | 39 | 98 | 44 | 181 | 684 | 32 | 106 | 43 | 181 | 67 | 227 | 36 | 330 | 684 | 838 | |
| 15:45 | 31 | 65 | 21 | 117 | 39 | 97 | 45 | 181 | 654 | 45 | 131 | 34 | 210 | 63 | 190 | 48 | 302 | 650 | 810 | |
| 16:00 | 38 | 83 | 22 | 143 | 33 | 85 | 52 | 170 | 700 | 53 | 128 | 55 | 238 | 67 | 222 | 44 | 333 | 700 | 884 | |
| 16:15 | 48 | 79 | 19 | 146 | 41 | 91 | 46 | 178 | 711 | 51 | 179 | 42 | 272 | 50 | 194 | 74 | 318 | 711 | 914 | |
| 16:30 | 37 | 104 | 21 | 162 | 40 | 85 | 36 | 161 | 705 | 60 | 124 | 49 | 234 | 46 | 154 | 38 | 238 | 705 | 795 | |
| 16:45 | 23 | 86 | 13 | 122 | 34 | 94 | 26 | 154 | 644 | 38 | 151 | 60 | 249 | 35 | 150 | 55 | 240 | 644 | 765 | |
| 17:00 | 39 | 73 | 22 | 134 | 40 | 98 | 38 | 176 | 624 | 29 | 117 | 33 | 179 | 36 | 159 | 45 | 240 | 624 | 729 | |
| 17:15 | 44 | 74 | 20 | 138 | 42 | 68 | 32 | 142 | 585 | 25 | 92 | 46 | 164 | 42 | 136 | 50 | 228 | 585 | 672 | |
| 17:30 | 40 | 62 | 17 | 119 | 30 | 68 | 26 | 124 | 523 | 26 | 87 | 49 | 162 | 38 | 105 | 37 | 180 | 523 | 585 | |
| 13:00 | 13:15 | 24 | 75 | 21 | 120 | 41 | 57 | 30 | 128 | 511 | 23 | 72 | 38 | 134 | 28 | 85 | 42 | 155 | 511 | 537 |
| Total: | | 1392 | 2498 | 899 | 4789 | 1263 | 2239 | 967 | 4470 | 18778 | 1047 | 4051 | 1143 | 6260 | 1101 | 4529 | 1490 | 7124 | 18778 | 22,643 |

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

| Time Period | ALTA VISTA DR | | | SMYTH RD | | | Grand Total |
|-------------|---------------|------------|--------------|-----------|-----------|--------------|-------------|
| | Northbound | Southbound | Street Total | Eastbound | Westbound | Street Total | |
| 07:00 07:15 | 1 | 0 | 1 | 2 | 0 | 2 | 3 |
| 07:15 07:30 | 1 | 0 | 1 | 1 | 0 | 1 | 2 |
| 07:30 07:45 | 2 | 0 | 2 | 0 | 1 | 1 | 3 |
| 17:45 18:00 | 0 | 1 | 1 | 0 | 3 | 3 | 4 |
| 07:45 08:00 | 0 | 0 | 0 | 1 | 1 | 2 | 2 |
| 08:00 08:15 | 5 | 0 | 5 | 0 | 1 | 1 | 6 |
| 08:15 08:30 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 08:30 08:45 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 08:45 09:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:00 09:15 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 09:15 09:30 | 3 | 0 | 3 | 0 | 2 | 2 | 5 |
| 09:30 09:45 | 1 | 0 | 1 | 1 | 0 | 1 | 2 |
| 09:45 10:00 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 11:30 11:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 12:15 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 12:15 12:30 | 1 | 0 | 1 | 0 | 1 | 1 | 2 |
| 12:30 12:45 | 1 | 0 | 1 | 0 | 1 | 1 | 2 |
| 12:45 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 13:30 | 0 | 0 | 0 | 2 | 0 | 2 | 2 |
| 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 | 1 | 0 | 1 | 1 |
| 15:45 16:00 | 1 | 0 | 1 | 2 | 0 | 2 | 3 |
| 16:00 16:15 | 3 | 0 | 3 | 1 | 2 | 3 | 6 |
| 16:15 16:30 | 1 | 1 | 2 | 1 | 1 | 2 | 4 |
| 16:30 16:45 | 0 | 0 | 0 | 0 | 2 | 2 | 2 |
| 16:45 17:00 | 1 | 1 | 2 | 0 | 0 | 0 | 2 |
| 17:00 17:15 | 0 | 1 | 1 | 2 | 2 | 4 | 5 |
| 17:15 17:30 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 17:30 17:45 | 1 | 0 | 1 | 0 | 2 | 2 | 3 |
| 13:00 13:15 | 1 | 0 | 1 | 2 | 0 | 2 | 3 |
| Total | 26 | 5 | 31 | 17 | 20 | 37 | 68 |



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No:

42262

Start Time: 07:00

Device:

Miovision

Full Study Pedestrian Volume

| Time Period | ALTA VISTA DR | | SMYTH RD | | Total | EB Approach (N or S Crossing) | WB Approach (N or S Crossing) | Total | Grand Total |
|-------------|-------------------------------|-------------------------------|----------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------|-------------|
| | 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) | | | | |
| 07:00 07:15 | 1 | 2 | 3 | 1 | 3 | 4 | 7 | | |
| 07:15 07:30 | 4 | 1 | 5 | 1 | 0 | 1 | 6 | | |
| 07:30 07:45 | 0 | 4 | 4 | 1 | 0 | 1 | 5 | | |
| 17:45 18:00 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | |
| 07:45 08:00 | 0 | 2 | 2 | 1 | 2 | 3 | 5 | | |
| 08:00 08:15 | 0 | 1 | 1 | 5 | 10 | 15 | 16 | | |
| 08:15 08:30 | 0 | 4 | 4 | 3 | 0 | 3 | 7 | | |
| 08:30 08:45 | 3 | 4 | 7 | 3 | 2 | 5 | 12 | | |
| 08:45 09:00 | 0 | 1 | 1 | 1 | 0 | 1 | 2 | | |
| 09:00 09:15 | 2 | 0 | 2 | 0 | 4 | 4 | 6 | | |
| 09:15 09:30 | 1 | 0 | 1 | 0 | 1 | 1 | 2 | | |
| 09:30 09:45 | 0 | 0 | 0 | 2 | 1 | 3 | 3 | | |
| 09:45 10:00 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | | |
| 11:30 11:45 | 2 | 0 | 2 | 1 | 1 | 2 | 4 | | |
| 11:45 12:00 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | | |
| 12:00 12:15 | 0 | 2 | 2 | 3 | 2 | 5 | 7 | | |
| 12:15 12:30 | 1 | 3 | 4 | 1 | 1 | 2 | 6 | | |
| 12:30 12:45 | 2 | 0 | 2 | 0 | 1 | 1 | 3 | | |
| 12:45 13:00 | 3 | 0 | 3 | 2 | 2 | 4 | 7 | | |
| 13:15 13:30 | 1 | 2 | 3 | 1 | 1 | 2 | 5 | | |
| 15:00 15:15 | 1 | 3 | 4 | 0 | 3 | 3 | 7 | | |
| 15:15 15:30 | 2 | 0 | 2 | 0 | 0 | 0 | 2 | | |
| 15:30 15:45 | 3 | 1 | 4 | 0 | 0 | 0 | 4 | | |
| 15:45 16:00 | 5 | 8 | 13 | 2 | 3 | 5 | 18 | | |
| 16:00 16:15 | 2 | 3 | 5 | 2 | 0 | 2 | 7 | | |
| 16:15 16:30 | 2 | 7 | 9 | 3 | 1 | 4 | 13 | | |
| 16:30 16:45 | 0 | 2 | 2 | 4 | 0 | 4 | 6 | | |
| 16:45 17:00 | 1 | 3 | 4 | 3 | 0 | 3 | 7 | | |
| 17:00 17:15 | 0 | 6 | 6 | 0 | 2 | 2 | 8 | | |
| 17:15 17:30 | 0 | 3 | 3 | 1 | 1 | 2 | 5 | | |
| 17:30 17:45 | 1 | 1 | 2 | 0 | 1 | 1 | 3 | | |
| 13:00 13:15 | 1 | 1 | 2 | 0 | 0 | 0 | 2 | | |
| Total | 41 | 65 | 106 | 41 | 42 | 83 | 189 | | |



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

ALTA VISTA DR SMYTH RD

| Time Period | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | Grand Total |
|---------------|------------|----|----|----------|------------|----|----|----------|-----------|----|-----|----------|-----------|----|-----|----------|-------------|
| | LT | ST | RT | N TOT | LT | ST | RT | S TOT | LT | ST | RT | E TOT | LT | ST | RT | W TOT | |
| 07:00 - 07:15 | 0 | 3 | 1 | 5 | 0 | 1 | 0 | 4 | 9 | 0 | 10 | 0 | 22 | 0 | 12 | 0 | 23 45 27 |
| 07:15 - 07:30 | 0 | 1 | 0 | 4 | 1 | 1 | 0 | 4 | 8 | 0 | 8 | 0 | 19 | 2 | 11 | 1 | 23 42 25 |
| 07:30 - 07:45 | 0 | 2 | 0 | 4 | 0 | 2 | 0 | 5 | 9 | 0 | 3 | 0 | 8 | 0 | 5 | 1 | 9 17 13 |
| 17:45 - 18:00 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 4 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 4 4 |
| 07:45 - 08:00 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 4 | 5 | 0 | 5 | 0 | 9 | 0 | 4 | 2 | 12 21 13 |
| 08:00 - 08:15 | 3 | 1 | 0 | 9 | 1 | 3 | 2 | 7 | 16 | 0 | 5 | 1 | 14 | 1 | 3 | 0 | 10 24 20 |
| 08:15 - 08:30 | 1 | 1 | 1 | 5 | 0 | 2 | 1 | 6 | 11 | 2 | 3 | 0 | 14 | 0 | 7 | 0 | 11 25 18 |
| 08:30 - 08:45 | 1 | 2 | 0 | 6 | 1 | 2 | 1 | 6 | 12 | 0 | 6 | 1 | 32 | 0 | 23 | 0 | 30 62 37 |
| 08:45 - 09:00 | 1 | 2 | 5 | 11 | 0 | 2 | 0 | 7 | 18 | 1 | 8 | 0 | 18 | 1 | 8 | 2 | 24 42 30 |
| 09:00 - 09:15 | 1 | 5 | 3 | 13 | 2 | 2 | 0 | 17 | 30 | 3 | 8 | 1 | 15 | 1 | 2 | 5 | 21 36 33 |
| 09:15 - 09:30 | 1 | 6 | 0 | 12 | 1 | 2 | 0 | 10 | 22 | 0 | 4 | 1 | 10 | 2 | 4 | 1 | 12 22 22 |
| 09:30 - 09:45 | 2 | 1 | 0 | 7 | 1 | 3 | 0 | 5 | 12 | 0 | 6 | 1 | 13 | 0 | 4 | 0 | 11 24 18 |
| 09:45 - 10:00 | 0 | 3 | 0 | 7 | 2 | 3 | 0 | 9 | 16 | 0 | 7 | 0 | 19 | 1 | 12 | 1 | 23 42 29 |
| 11:30 - 11:45 | 0 | 3 | 0 | 7 | 0 | 1 | 0 | 7 | 14 | 1 | 5 | 2 | 13 | 1 | 5 | 2 | 13 26 20 |
| 11:45 - 12:00 | 0 | 1 | 1 | 4 | 0 | 1 | 0 | 3 | 7 | 0 | 7 | 1 | 18 | 0 | 10 | 1 | 19 37 22 |
| 12:00 - 12:15 | 1 | 1 | 0 | 6 | 1 | 3 | 0 | 5 | 11 | 0 | 4 | 0 | 10 | 1 | 5 | 0 | 11 21 16 |
| 12:15 - 12:30 | 1 | 3 | 0 | 5 | 0 | 1 | 0 | 5 | 10 | 1 | 9 | 0 | 16 | 0 | 5 | 0 | 14 30 20 |
| 12:30 - 12:45 | 0 | 2 | 0 | 7 | 0 | 3 | 1 | 6 | 13 | 0 | 5 | 0 | 14 | 2 | 8 | 0 | 15 29 21 |
| 12:45 - 13:00 | 0 | 2 | 1 | 6 | 1 | 3 | 0 | 6 | 12 | 0 | 11 | 0 | 18 | 0 | 7 | 0 | 20 38 25 |
| 13:15 - 13:30 | 0 | 3 | 0 | 6 | 1 | 2 | 0 | 7 | 13 | 1 | 4 | 1 | 13 | 0 | 7 | 0 | 12 25 19 |
| 15:00 - 15:15 | 1 | 1 | 1 | 4 | 0 | 1 | 2 | 7 | 11 | 1 | 8 | 0 | 18 | 0 | 6 | 2 | 17 35 23 |
| 15:15 - 15:30 | 0 | 2 | 1 | 8 | 1 | 2 | 0 | 9 | 17 | 1 | 11 | 1 | 15 | 2 | 2 | 3 | 20 35 26 |
| 15:30 - 15:45 | 0 | 3 | 1 | 7 | 1 | 2 | 0 | 7 | 14 | 0 | 10 | 1 | 15 | 0 | 4 | 1 | 17 32 23 |
| 15:45 - 16:00 | 0 | 0 | 1 | 7 | 0 | 3 | 0 | 3 | 10 | 0 | 9 | 0 | 15 | 3 | 6 | 0 | 19 34 22 |
| 16:00 - 16:15 | 1 | 2 | 0 | 5 | 0 | 2 | 0 | 7 | 12 | 0 | 3 | 0 | 8 | 0 | 2 | 3 | 8 16 14 |
| 16:15 - 16:30 | 2 | 2 | 0 | 6 | 1 | 1 | 0 | 7 | 13 | 1 | 10 | 0 | 18 | 1 | 5 | 2 | 19 37 25 |
| 16:30 - 16:45 | 0 | 0 | 1 | 4 | 0 | 1 | 0 | 3 | 7 | 1 | 8 | 0 | 14 | 2 | 5 | 1 | 17 31 19 |
| 16:45 - 17:00 | 0 | 3 | 0 | 4 | 0 | 1 | 0 | 4 | 8 | 0 | 7 | 0 | 11 | 0 | 4 | 0 | 11 22 15 |
| 17:00 - 17:15 | 2 | 0 | 0 | 4 | 1 | 2 | 0 | 4 | 8 | 1 | 7 | 0 | 13 | 0 | 3 | 0 | 11 24 16 |
| 17:15 - 17:30 | 0 | 1 | 0 | 2 | 2 | 1 | 0 | 5 | 7 | 1 | 5 | 0 | 8 | 0 | 2 | 0 | 9 17 12 |
| 17:30 - 17:45 | 0 | 2 | 0 | 7 | 0 | 4 | 0 | 7 | 14 | 0 | 1 | 0 | 6 | 1 | 5 | 1 | 8 14 14 |
| 13:00 - 13:15 | 0 | 3 | 0 | 5 | 1 | 0 | 1 | 7 | 12 | 1 | 4 | 1 | 14 | 1 | 7 | 1 | 14 28 20 |
| Total: None | 18 | 61 | 17 | 190 | 20 | 60 | 8 | 195 | 385 | 16 | 201 | 12 | 452 | 22 | 195 | 30 | 485 937 661 |



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

ALTA VISTA DR SMYTH RD

| Time Period | Northbound U-Turn Total | Southbound U-Turn Total | Eastbound U-Turn Total | Westbound U-Turn Total | Total |
|---------------|-------------------------|-------------------------|------------------------|------------------------|-------|
| 07:00 - 07:15 | 0 | 0 | 0 | 0 | 0 |
| 07:15 - 07:30 | 0 | 0 | 1 | 0 | 1 |
| 07:30 - 07:45 | 0 | 0 | 0 | 0 | 0 |
| 17:45 - 18:00 | 0 | 0 | 0 | 0 | 0 |
| 07:45 - 08:00 | 0 | 0 | 0 | 0 | 0 |
| 08:00 - 08:15 | 0 | 0 | 1 | 0 | 1 |
| 08:15 - 08:30 | 0 | 0 | 0 | 0 | 0 |
| 08:30 - 08:45 | 0 | 0 | 0 | 0 | 0 |
| 08:45 - 09:00 | 0 | 0 | 2 | 0 | 2 |
| 09:00 - 09:15 | 0 | 0 | 0 | 1 | 1 |
| 09:15 - 09:30 | 0 | 0 | 1 | 0 | 1 |
| 09:30 - 09:45 | 0 | 0 | 1 | 0 | 1 |
| 09:45 - 10:00 | 0 | 0 | 1 | 0 | 1 |
| 11:30 - 11:45 | 0 | 0 | 1 | 0 | 1 |
| 11:45 - 12:00 | 0 | 0 | 0 | 0 | 0 |
| 12:00 - 12:15 | 0 | 0 | 0 | 0 | 0 |
| 12:15 - 12:30 | 0 | 0 | 1 | 1 | 2 |
| 12:30 - 12:45 | 0 | 0 | 1 | 0 | 1 |
| 12:45 - 13:00 | 0 | 0 | 2 | 0 | 2 |
| 13:15 - 13:30 | 0 | 0 | 2 | 0 | 2 |
| 15:00 - 15:15 | 0 | 0 | 0 | 0 | 0 |
| 15:15 - 15:30 | 0 | 0 | 0 | 2 | 2 |
| 15:30 - 15:45 | 0 | 0 | 0 | 0 | 0 |
| 15:45 - 16:00 | 0 | 0 | 0 | 1 | 1 |
| 16:00 - 16:15 | 0 | 0 | 2 | 0 | 2 |
| 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 | 0 | 0 | 0 |
| 17:15 - 17:30 | 0 | 0 | 1 | 0 | 1 |
| 17:30 - 17:45 | 0 | 0 | 0 | 0 | 0 |
| 13:00 - 13:15 | 0 | 0 | 1 | 0 | 1 |
| Total: | 0 | 1 | 19 | 4 | 24 |



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

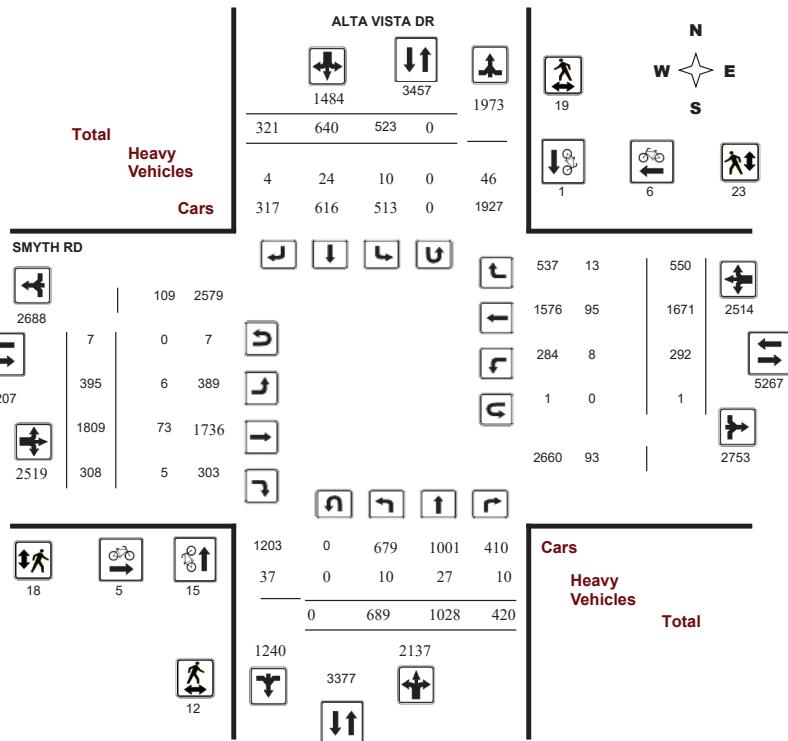
Survey Date: Wednesday, October 02, 2024

Start Time: 07:00

WO No: 42262

Device: Miovision

AM Period Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

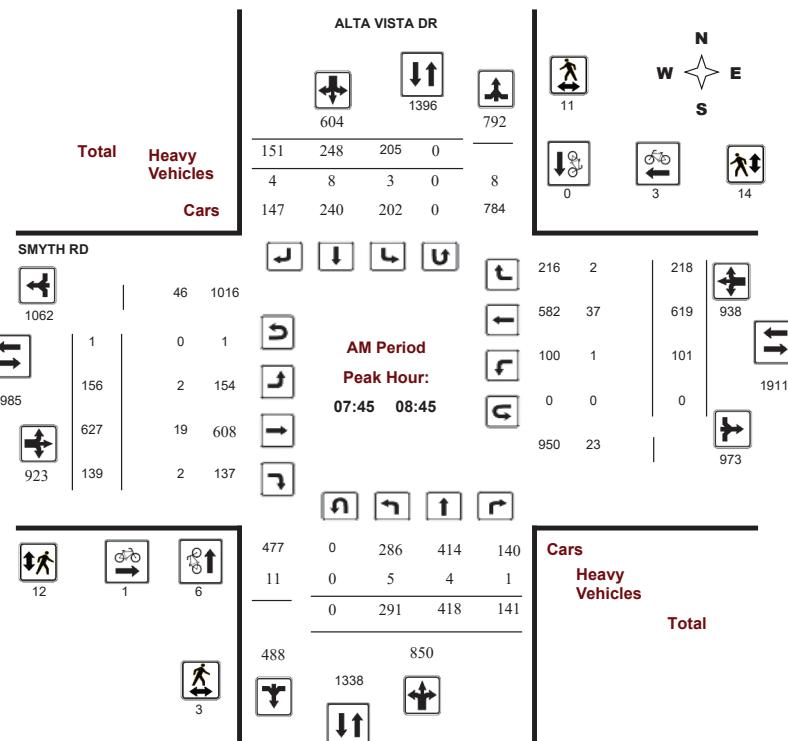
Survey Date: Wednesday, October 02, 2024

Start Time: 07:00

WO No: 42262

Device: Miovision

AM Period Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024 **WO No:** 42262
Start Time: 07:00 **Device:** Miovision

AM Period Summary (8 HR Standard)

| Survey Date: Wednesday, October 02, 2024 | | | | | | | | | | | | Total Observed U-Turns | | | AADT Factor | | | | |
|---|------------|-------------|------------|-------------|------------|------------|------------|-------------|-------------|------------|-------------|------------------------|---------------|------------|-------------|------------|-------------|-------------|-------------|
| | | | | | | | | | | | | Northbound: 0 | Southbound: 0 | .90 | | | | | |
| | | | | | | | | | | | | Eastbound: 7 | Westbound: 1 | | | | | | |
| ALTA VISTA DR | | | | | | | | | | | | SMYTH RD | | | | | | | |
| Northbound | | | | | | | | | | | | Northbound | Southbound | Eastbound | Westbound | WB TOT | STR TOT | | |
| Period | LT | ST | RT | NB TOT | LT | ST | RT | SB TOT | STR TOT | LT | ST | RT | EB TOT | LT | ST | RT | Grand Total | | |
| 07:00 | 232 | 258 | 162 | 652 | 154 | 154 | 79 | 387 | 1039 | 90 | 677 | 61 | 828 | 77 | 612 | 146 | 835 | 1663 | 2702 |
| 08:00 | 262 | 423 | 147 | 832 | 211 | 269 | 148 | 628 | 1460 | 179 | 591 | 141 | 911 | 101 | 586 | 231 | 918 | 1829 | 3289 |
| 09:00 | 195 | 347 | 111 | 653 | 158 | 217 | 94 | 469 | 1122 | 126 | 541 | 106 | 773 | 114 | 473 | 173 | 760 | 1533 | 2655 |
| Sub Total | 689 | 1028 | 420 | 2137 | 523 | 640 | 321 | 1484 | 3621 | 395 | 1809 | 308 | 2512 | 292 | 1671 | 550 | 2513 | 5025 | 8646 |
| U Turns | | | | | | | | | | | | | | | | | | | |
| Total | 689 | 1028 | 420 | 2137 | 523 | 640 | 321 | 1484 | 3621 | 395 | 1809 | 308 | 2519 | 292 | 1671 | 550 | 2514 | 5033 | 8654 |
| EQ 12Hr | 958 | 1429 | 584 | 2970 | 727 | 890 | 446 | 2063 | 5033 | 549 | 2515 | 428 | 3501 | 406 | 2323 | 764 | 3494 | 6996 | 12029 |
| Note: These values are calculated by multiplying the totals by the appropriate expansion factor. | 1.39 | | | | | | | | | | | | | | | | | | |
| AVG 12Hr | 862 | 1286 | 526 | 2673 | 654 | 1049 | 526 | 1857 | 4530 | 494 | 2264 | 385 | 3151 | 365 | 2091 | 688 | 3145 | 6296 | 10826 |
| Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor. | .90 | | | | | | | | | | | | | | | | | | |
| AVG 24Hr | 1129 | 1685 | 689 | 3502 | 857 | 1374 | 689 | 2433 | 5934 | 647 | 2966 | 504 | 4128 | 478 | 2739 | 901 | 4120 | 8248 | 14182 |
| 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

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024 **WO No:** 42262
Start Time: 07:00 **Device:** Miovision

AM Period 15 Minute Increments

| Time Period | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | E TOT | LT | ST | RT | W TOT | STR TOT | Grand Total | |
|-------------|------------|-----|------|------------|------|-----|-----------|-------|---------|-----------|-----|------|-------|------|-----|------|-------|---------|-------------|-------|
| | LT | ST | RT | N TOT | LT | ST | RT | S TOT | STR TOT | LT | ST | RT | | | | | | | | |
| 07:00 | 07:15 | 36 | 39 | 38 | 113 | 33 | 31 | 16 | 80 | 314 | 14 | 163 | 12 | 189 | 8 | 108 | 17 | 133 | 314 | 515 |
| 07:15 | 07:30 | 47 | 49 | 43 | 139 | 35 | 28 | 18 | 81 | 386 | 27 | 171 | 10 | 209 | 22 | 156 | 30 | 208 | 386 | 637 |
| 07:30 | 07:45 | 66 | 70 | 30 | 166 | 32 | 50 | 12 | 94 | 482 | 23 | 144 | 16 | 183 | 16 | 193 | 47 | 256 | 482 | 699 |
| 09:45 | 10:00 | 37 | 64 | 21 | 122 | 40 | 57 | 16 | 113 | 456 | 18 | 118 | 29 | 166 | 26 | 121 | 27 | 174 | 456 | 575 |
| 07:45 | 08:00 | 83 | 100 | 51 | 234 | 54 | 45 | 33 | 132 | 643 | 26 | 199 | 23 | 248 | 31 | 155 | 52 | 238 | 643 | 852 |
| 08:00 | 08:15 | 88 | 107 | 25 | 220 | 44 | 60 | 33 | 137 | 661 | 37 | 130 | 32 | 200 | 21 | 142 | 47 | 210 | 661 | 767 |
| 08:15 | 08:30 | 70 | 104 | 39 | 213 | 51 | 60 | 40 | 151 | 682 | 44 | 159 | 43 | 246 | 23 | 159 | 44 | 226 | 682 | 836 |
| 08:30 | 08:45 | 50 | 107 | 26 | 183 | 56 | 83 | 45 | 184 | 748 | 49 | 139 | 41 | 229 | 26 | 163 | 75 | 264 | 748 | 860 |
| 08:45 | 09:00 | 54 | 105 | 57 | 216 | 60 | 66 | 30 | 156 | 713 | 49 | 163 | 25 | 239 | 31 | 122 | 65 | 218 | 713 | 829 |
| 09:00 | 09:15 | 52 | 106 | 33 | 191 | 44 | 56 | 35 | 135 | 655 | 51 | 164 | 22 | 237 | 31 | 120 | 63 | 215 | 655 | 778 |
| 09:15 | 09:30 | 51 | 105 | 25 | 181 | 46 | 63 | 26 | 135 | 630 | 29 | 122 | 34 | 186 | 29 | 125 | 54 | 208 | 630 | 710 |
| 09:30 | 09:45 | 55 | 72 | 32 | 159 | 28 | 41 | 17 | 86 | 464 | 28 | 137 | 21 | 187 | 28 | 107 | 29 | 164 | 464 | 596 |
| | Total: | 689 | 1028 | 420 | 2137 | 523 | 640 | 321 | 1484 | 6834 | 395 | 1809 | 308 | 2519 | 292 | 1671 | 550 | 2514 | 6834 | 8,654 |

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

AM Period Cyclist Volume

| Time Period | ALTA VISTA DR | | | SMYTH RD | | | Grand Total |
|-------------|---------------|------------|--------------|-----------|-----------|--------------|-------------|
| | Northbound | Southbound | Street Total | Eastbound | Westbound | Street Total | |
| 07:00 07:15 | 1 | 0 | 1 | 2 | 0 | 2 | 3 |
| 07:15 07:30 | 1 | 0 | 1 | 1 | 0 | 1 | 2 |
| 07:30 07:45 | 2 | 0 | 2 | 0 | 1 | 1 | 3 |
| 09:45 10:00 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 07:45 08:00 | 0 | 0 | 0 | 1 | 1 | 2 | 2 |
| 08:00 08:15 | 5 | 0 | 5 | 0 | 1 | 1 | 6 |
| 08:15 08:30 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 08:30 08:45 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 08:45 09:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:00 09:15 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 09:15 09:30 | 3 | 0 | 3 | 0 | 2 | 2 | 5 |
| 09:30 09:45 | 1 | 0 | 1 | 1 | 0 | 1 | 2 |
| Total | 15 | 1 | 16 | 5 | 6 | 11 | 27 |



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

AM Period Pedestrian Volume

| Time Period | ALTA VISTA DR | | | SMYTH RD | | | Grand Total |
|-------------|----------------------------------|----------------------------------|-------|----------------------------------|----------------------------------|-------|-------------|
| | 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 | |
| 07:00 07:15 | 1 | 2 | 3 | 1 | 3 | 4 | 7 |
| 07:15 07:30 | 4 | 1 | 5 | 1 | 0 | 1 | 6 |
| 07:30 07:45 | 0 | 4 | 4 | 1 | 0 | 1 | 5 |
| 09:45 10:00 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 07:45 08:00 | 0 | 2 | 2 | 1 | 2 | 3 | 5 |
| 08:00 08:15 | 0 | 1 | 1 | 5 | 10 | 15 | 16 |
| 08:15 08:30 | 0 | 4 | 4 | 3 | 0 | 3 | 7 |
| 08:30 08:45 | 3 | 4 | 7 | 3 | 2 | 5 | 12 |
| 08:45 09:00 | 0 | 1 | 1 | 1 | 0 | 1 | 2 |
| 09:00 09:15 | 2 | 0 | 2 | 0 | 4 | 4 | 6 |
| 09:15 09:30 | 1 | 0 | 1 | 0 | 1 | 1 | 2 |
| 09:30 09:45 | 0 | 0 | 0 | 2 | 1 | 3 | 3 |
| Total | 12 | 19 | 31 | 18 | 23 | 41 | 72 |



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

AM Period Heavy Vehicles

ALTA VISTA DR

SMYTH RD

| 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 | 0 | 3 | 1 | 5 | 0 | 1 | 0 | 4 | 9 | 0 | 10 | 0 | 22 | 0 | 12 | 0 | 23 | 45 | 27 | |
| 07:15 | 0 | 1 | 0 | 4 | 1 | 1 | 0 | 4 | 8 | 0 | 8 | 0 | 19 | 2 | 11 | 1 | 23 | 42 | 25 | |
| 07:30 | 0 | 2 | 0 | 4 | 0 | 2 | 0 | 5 | 9 | 0 | 3 | 0 | 8 | 0 | 5 | 1 | 9 | 17 | 13 | |
| 09:45 | 10:00 | 0 | 3 | 0 | 7 | 2 | 3 | 0 | 9 | 16 | 0 | 7 | 0 | 19 | 1 | 12 | 1 | 23 | 42 | 29 |
| 07:45 | 08:00 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 4 | 5 | 0 | 5 | 0 | 9 | 0 | 4 | 2 | 12 | 21 | 13 |
| 08:00 | 08:15 | 3 | 1 | 0 | 9 | 1 | 3 | 2 | 7 | 16 | 0 | 5 | 1 | 14 | 1 | 3 | 0 | 10 | 24 | 20 |
| 08:15 | 08:30 | 1 | 1 | 1 | 5 | 0 | 2 | 1 | 6 | 11 | 2 | 3 | 0 | 14 | 0 | 7 | 0 | 11 | 25 | 18 |
| 08:30 | 08:45 | 1 | 2 | 0 | 6 | 1 | 2 | 1 | 6 | 12 | 0 | 6 | 1 | 32 | 0 | 23 | 0 | 30 | 62 | 37 |
| 08:45 | 09:00 | 1 | 2 | 5 | 11 | 0 | 2 | 0 | 7 | 18 | 1 | 8 | 0 | 18 | 1 | 8 | 2 | 24 | 42 | 30 |
| 09:00 | 09:15 | 1 | 5 | 3 | 13 | 2 | 2 | 0 | 17 | 30 | 3 | 8 | 1 | 15 | 1 | 2 | 5 | 21 | 36 | 33 |
| 09:15 | 09:30 | 1 | 6 | 0 | 12 | 1 | 2 | 0 | 10 | 22 | 0 | 4 | 1 | 10 | 2 | 4 | 1 | 12 | 22 | 22 |
| 09:30 | 09:45 | 2 | 1 | 0 | 7 | 1 | 3 | 0 | 5 | 12 | 0 | 6 | 1 | 13 | 0 | 4 | 0 | 11 | 24 | 18 |
| Total: | None | 10 | 27 | 10 | 84 | 10 | 24 | 4 | 84 | 168 | 6 | 73 | 5 | 193 | 8 | 95 | 13 | 209 | 402 | 285 |



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

AM Period 15 Minute U-Turn Total

ALTA VISTA DR

SMYTH RD

| Time Period | Northbound U-Turn Total | Southbound U-Turn Total | Eastbound U-Turn Total | Westbound U-Turn Total | Total |
|-------------|-------------------------|-------------------------|------------------------|------------------------|-------|
| 07:00 | 07:15 | 0 | 0 | 0 | 0 |
| 07:15 | 07:30 | 0 | 0 | 1 | 0 |
| 07:30 | 07:45 | 0 | 0 | 0 | 0 |
| 09:45 | 10:00 | 0 | 0 | 1 | 0 |
| 07:45 | 08:00 | 0 | 0 | 0 | 0 |
| 08:00 | 08:15 | 0 | 0 | 1 | 0 |
| 08:15 | 08:30 | 0 | 0 | 0 | 0 |
| 08:30 | 08:45 | 0 | 0 | 0 | 0 |
| 08:45 | 09:00 | 0 | 0 | 2 | 0 |
| 09:00 | 09:15 | 0 | 0 | 0 | 1 |
| 09:15 | 09:30 | 0 | 0 | 1 | 0 |
| 09:30 | 09:45 | 0 | 0 | 1 | 0 |
| Total | | 0 | 0 | 7 | 1 |
| | | | | | 8 |



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

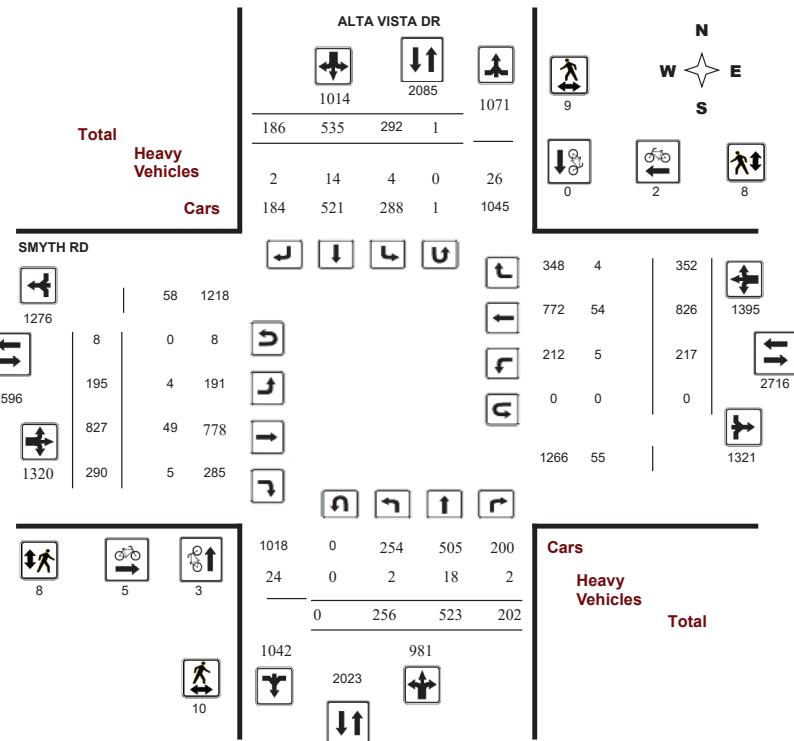
Survey Date: Wednesday, October 02, 2024

Start Time: 07:00

WO No: 42262

Device: Miovision

MD Period Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

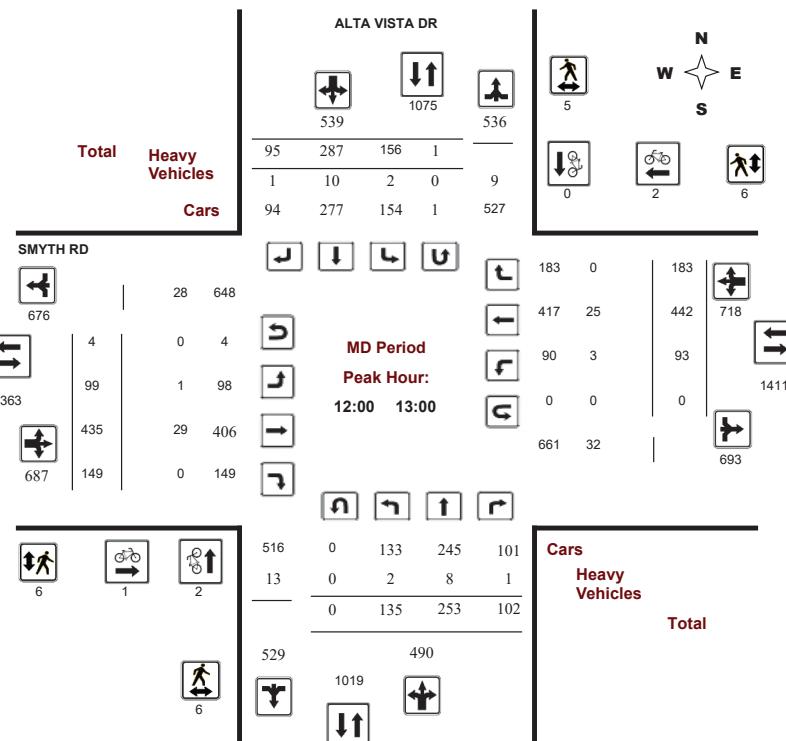
Survey Date: Wednesday, October 02, 2024

Start Time: 07:00

WO No: 42262

Device: Miovision

MD Period Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

MD Period Summary (8 HR Standard)

Survey Date: Wednesday, October 02, 2024

Total Observed U-Turns

AADT Factor

| | | |
|---------------|---------------|-----|
| Northbound: 0 | Southbound: 1 | .90 |
| Eastbound: 8 | Westbound: 0 | |

ALTA VISTA DR

SMYTH RD

| Period | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | WB TOT | STR TOT | Grand Total | |
|------------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|------------|------------|------------|-------------|------------|------------|------------|-------------|----------------|-------------|
| | LT | ST | RT | NB TOT | LT | ST | RT | SB TOT | STR TOT | LT | ST | RT | EB TOT | LT | ST | RT | | | | |
| 11:30 | 12:30 | 149 | 237 | 90 | 476 | 130 | 270 | 78 | 478 | 954 | 98 | 415 | 135 | 648 | 109 | 437 | 187 | 733 | 1381 | 2335 |
| 12:30 | 13:30 | 107 | 286 | 112 | 505 | 162 | 265 | 108 | 535 | 1040 | 97 | 412 | 155 | 664 | 108 | 389 | 165 | 662 | 1326 | 2366 |
| Sub Total | | 256 | 523 | 202 | 981 | 292 | 535 | 186 | 1013 | 1994 | 195 | 827 | 290 | 1312 | 217 | 826 | 352 | 1395 | 2707 | 4701 |
| U Turns | | | | | 0 | | | | 1 | 1 | | | | 8 | | | 0 | 8 | 9 | |
| Total | | 256 | 523 | 202 | 981 | 292 | 535 | 186 | 1014 | 1995 | 195 | 827 | 290 | 1320 | 217 | 826 | 352 | 1395 | 2715 | 4710 |

EQ 12Hr 356 727 281 1364 406 744 259 1409 2773 271 1150 403 1835 302 1148 489 1939 3774 6547
Note: These values are calculated by multiplying the totals by the appropriate expansion factor. 1.39

AVG 12Hr 320 654 253 1228 365 877 305 1268 2496 244 1035 363 1652 272 1033 440 1745 3397 5892
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor. .90

AVG 24Hr 419 857 331 1609 478 1149 400 1661 3270 320 1356 476 2164 356 1353 576 2286 4450 7719
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

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

MD Period 15 Minute Increments

| Time Period | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | E TOT | LT | ST | RT | W TOT | STR TOT | Grand Total | |
|---------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|------------|------------|------------|-------------|------------|------------|------------|-------------|----------------|--------------|
| | LT | ST | RT | N TOT | LT | ST | RT | S TOT | STR TOT | LT | ST | RT | | | | | | | | |
| 11:30 | 11:45 | 35 | 63 | 20 | 118 | 20 | 64 | 18 | 102 | 489 | 28 | 100 | 33 | 162 | 35 | 97 | 46 | 178 | 489 | 560 |
| 11:45 | 12:00 | 34 | 63 | 30 | 127 | 44 | 61 | 23 | 128 | 506 | 21 | 106 | 31 | 158 | 29 | 109 | 46 | 184 | 506 | 597 |
| 12:00 | 12:15 | 41 | 53 | 15 | 109 | 40 | 76 | 21 | 137 | 506 | 25 | 90 | 38 | 153 | 16 | 92 | 55 | 163 | 509 | 562 |
| 12:15 | 12:30 | 28 | 69 | 29 | 126 | 31 | 66 | 20 | 117 | 508 | 24 | 114 | 39 | 179 | 32 | 93 | 35 | 160 | 508 | 582 |
| 12:30 | 12:45 | 37 | 84 | 26 | 147 | 56 | 70 | 30 | 156 | 581 | 22 | 104 | 34 | 161 | 25 | 106 | 43 | 174 | 581 | 638 |
| 12:45 | 13:00 | 18 | 58 | 36 | 112 | 34 | 72 | 28 | 134 | 516 | 28 | 122 | 44 | 196 | 23 | 105 | 45 | 173 | 516 | 615 |
| 13:00 | 13:15 | 24 | 75 | 21 | 120 | 41 | 57 | 30 | 128 | 511 | 23 | 72 | 38 | 134 | 28 | 85 | 42 | 155 | 511 | 537 |
| Total: | | 256 | 523 | 202 | 981 | 292 | 535 | 186 | 1014 | 4108 | 195 | 827 | 290 | 1320 | 217 | 826 | 352 | 1395 | 4108 | 4,710 |

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

MD Period Cyclist Volume

| Time Period | ALTA VISTA DR | | | SMYTH RD | | | Grand Total |
|-------------|---------------|------------|--------------|-----------|-----------|--------------|-------------|
| | Northbound | Southbound | Street Total | Eastbound | Westbound | Street Total | |
| 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 | 1 | 0 | 1 | 1 |
| 13:15 13:30 | 0 | 0 | 0 | 2 | 0 | 2 | 2 |
| 12:15 12:30 | 1 | 0 | 1 | 0 | 1 | 1 | 2 |
| 12:30 12:45 | 1 | 0 | 1 | 0 | 1 | 1 | 2 |
| 12:45 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 13:15 | 1 | 0 | 1 | 2 | 0 | 2 | 3 |
| Total | 3 | 0 | 3 | 5 | 2 | 7 | 10 |



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

MD Period Pedestrian Volume

| Time Period | ALTA VISTA DR | | SMYTH RD | | Total | Grand Total |
|-------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|-------|-------------|
| | NB Approach (E or W Crossing) | SB Approach (E or W Crossing) | EB Approach (N or S Crossing) | WB Approach (N or S Crossing) | | |
| 11:30 11:45 | 2 | 0 | 2 | 1 | 2 | 4 |
| 11:45 12:00 | 0 | 1 | 1 | 0 | 0 | 1 |
| 12:00 12:15 | 0 | 2 | 2 | 3 | 5 | 7 |
| 13:15 13:30 | 1 | 2 | 3 | 1 | 2 | 5 |
| 12:15 12:30 | 1 | 3 | 4 | 1 | 2 | 6 |
| 12:30 12:45 | 2 | 0 | 2 | 0 | 1 | 3 |
| 12:45 13:00 | 3 | 0 | 3 | 2 | 4 | 7 |
| 13:00 13:15 | 1 | 1 | 2 | 0 | 0 | 2 |
| Total | 10 | 9 | 19 | 8 | 16 | 35 |



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

MD Period Heavy Vehicles

ALTA VISTA DR

SMYTH RD

| Time Period | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Grand Total | | | | | | | | |
|---------------|------------|----|----|------------|----|----|-----------|---|-----|-----------|----|----|-------------|-----|----|----|----|-----|-----|-----|--|
| | LT | ST | RT | N | LT | ST | RT | S | STR | LT | ST | RT | E | LT | ST | RT | W | STR | TOT | TOT | |
| 11:30 - 11:45 | 0 | 3 | 0 | 7 | 0 | 1 | 0 | 7 | 14 | 1 | 5 | 2 | 13 | 1 | 5 | 2 | 13 | 26 | 20 | | |
| 11:45 - 12:00 | 0 | 1 | 1 | 4 | 0 | 1 | 0 | 3 | 7 | 0 | 7 | 1 | 18 | 0 | 10 | 1 | 19 | 37 | 22 | | |
| 12:00 - 12:15 | 1 | 1 | 0 | 6 | 1 | 3 | 0 | 5 | 11 | 0 | 4 | 0 | 10 | 1 | 5 | 0 | 11 | 21 | 16 | | |
| 12:15 - 13:30 | 0 | 3 | 0 | 6 | 1 | 2 | 0 | 7 | 13 | 1 | 4 | 1 | 13 | 0 | 7 | 0 | 12 | 25 | 19 | | |
| 12:30 - 12:45 | 1 | 3 | 0 | 5 | 0 | 1 | 0 | 5 | 10 | 1 | 9 | 0 | 16 | 0 | 5 | 0 | 14 | 30 | 20 | | |
| 12:45 - 13:00 | 0 | 2 | 0 | 7 | 0 | 3 | 1 | 6 | 13 | 0 | 5 | 0 | 14 | 2 | 8 | 0 | 15 | 29 | 21 | | |
| 13:00 - 13:15 | 0 | 2 | 1 | 6 | 1 | 3 | 0 | 6 | 12 | 0 | 11 | 0 | 18 | 0 | 7 | 0 | 20 | 38 | 25 | | |
| Total: | None | 2 | 18 | 2 | 46 | 4 | 14 | 2 | 46 | 92 | 4 | 49 | 5 | 116 | 5 | 54 | 4 | 118 | 234 | 163 | |



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

MD Period 15 Minute U-Turn Total

ALTA VISTA DR

SMYTH RD

| Time Period | Northbound U-Turn Total | Southbound U-Turn Total | Eastbound U-Turn Total | Westbound U-Turn Total | Total |
|---------------|-------------------------|-------------------------|------------------------|------------------------|-------|
| 11:30 - 11:45 | 0 | 0 | 1 | 0 | 1 |
| 11:45 - 12:00 | 0 | 0 | 0 | 0 | 0 |
| 12:00 - 12:15 | 0 | 0 | 0 | 0 | 0 |
| 12:15 - 13:30 | 0 | 0 | 2 | 0 | 2 |
| 12:30 - 12:45 | 0 | 1 | 1 | 0 | 2 |
| 12:45 - 13:00 | 0 | 0 | 1 | 0 | 1 |
| 13:00 - 13:15 | 0 | 0 | 2 | 0 | 2 |
| Total | 0 | 1 | 8 | 0 | 9 |



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

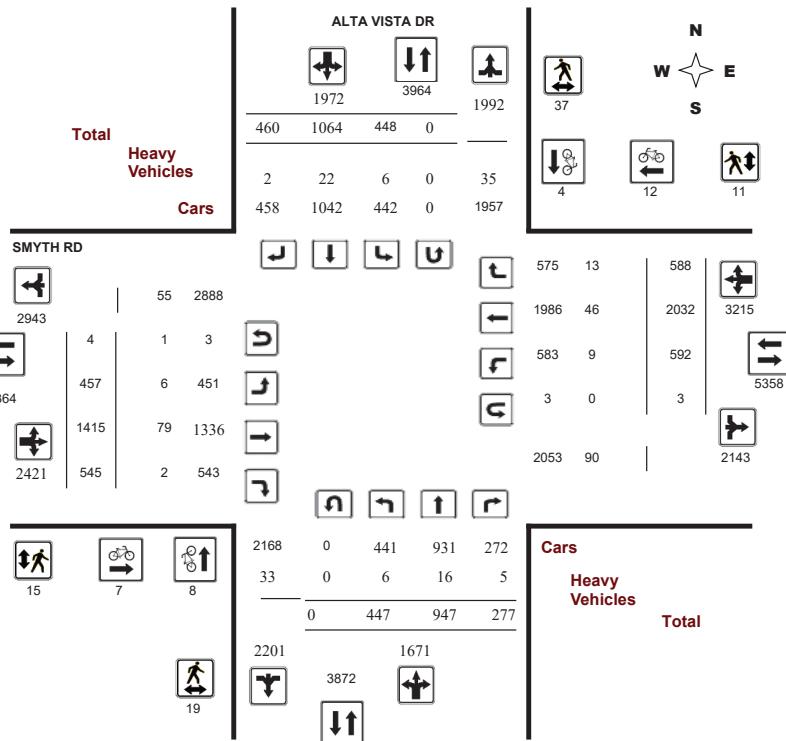
Survey Date: Wednesday, October 02, 2024

Start Time: 07:00

WO No: 42262

Device: Miovision

PM Period Diagram



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

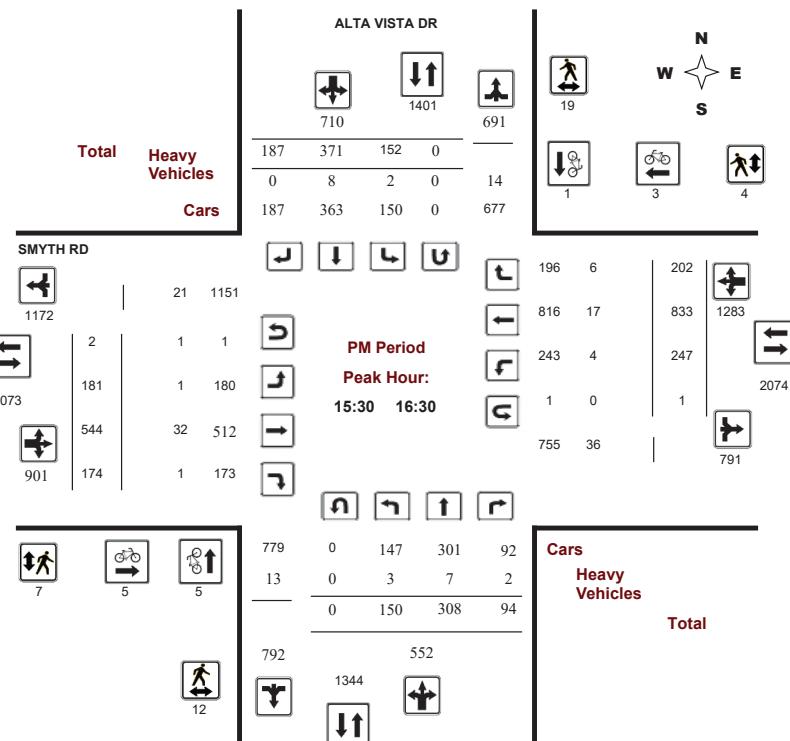
Survey Date: Wednesday, October 02, 2024

Start Time: 07:00

WO No: 42262

Device: Miovision

PM Period Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

PM Period Summary (8 HR Standard)

Survey Date: Wednesday, October 02, 2024

Total Observed U-Turns

AADT Factor

| | | |
|---------------|---------------|-----|
| Northbound: 0 | Southbound: 0 | .90 |
| Eastbound: 4 | Westbound: 3 | |

| ALTA VISTA DR | | | | | | | | | | | | SMYTH RD | | | | | | | | | | | |
|------------------|------------|-----|------|------------|-------------|-----|-----------|-----------|------------|-----------|-----|----------|-----------|------------|----------------|------|-----|----------|----------|----------|--|--|--|
| Period | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | WB TOT | STR TOT | Grand Total | | | | | | | | |
| | LT | ST | RT | NB TOT | LT | ST | RT | SB TOT | STR TOT | LT | ST | RT | EB TOT | LT | ST | RT | | | | | | | |
| 15:00 | 16:00 | 131 | 324 | 121 | 576 | 155 | 370 | 179 | 704 | 1280 | 143 | 462 | 168 | 773 | 242 | 785 | 216 | 1243 | 2016 | 3296 | | | |
| 16:00 | 17:00 | 146 | 352 | 75 | 573 | 148 | 355 | 160 | 663 | 1236 | 202 | 582 | 206 | 990 | 198 | 720 | 211 | 1129 | 2119 | 3355 | | | |
| 17:00 | 18:00 | 170 | 271 | 81 | 522 | 145 | 339 | 121 | 605 | 1127 | 112 | 371 | 171 | 654 | 152 | 527 | 161 | 840 | 1494 | 2621 | | | |
| Sub Total | | 447 | 947 | 277 | 1671 | 448 | 1064 | 460 | 1972 | 3643 | 457 | 1415 | 545 | 2417 | 592 | 2032 | 588 | 3212 | 5629 | 9272 | | | |
| U Turns | | | | | 0 | | 0 | 0 | | | | | | 4 | | | | 3 | 7 | 7 | | | |
| Total | | 447 | 947 | 277 | 1671 | 448 | 1064 | 460 | 1972 | 3643 | 457 | 1415 | 545 | 2421 | 592 | 2032 | 588 | 3215 | 5636 | 9279 | | | |
| EQ 12Hr | | 621 | 1316 | 385 | 2323 | 623 | 1479 | 639 | 2741 | 5064 | 635 | 1967 | 758 | 3365 | 823 | 2824 | 817 | 4469 | 7834 | 12898 | | | |

Note: These values are calculated by multiplying the totals by the appropriate expansion factor. **1.39**

AVG 12Hr 559 1184 346 2091 561 1744 754 2467 4558 572 1770 682 3028 741 2542 735 4022 7051 11608

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor. **.90**

AVG 24Hr 732 1551 453 2739 735 2285 988 3232 5971 749 2319 893 3967 971 3330 963 5269 9237 15206

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

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

PM Period 15 Minute Increments

| Time Period | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | E TOT | LT | ST | RT | W TOT | STR TOT | Grand Total | |
|---------------|------------|-----|-----|------------|-------------|-----|-----------|----------|------------|-----------|-----|------|----------|------|-----|------|----------|------------|----------------|-------|
| | LT | ST | RT | N TOT | LT | ST | RT | S TOT | STR TOT | LT | ST | RT | | | | | | | | |
| 15:00 | 15:15 | 37 | 87 | 28 | 152 | 38 | 69 | 48 | 155 | 656 | 32 | 109 | 46 | 187 | 52 | 207 | 63 | 322 | 656 | 816 |
| 15:15 | 15:30 | 30 | 91 | 40 | 161 | 39 | 106 | 42 | 187 | 753 | 34 | 116 | 45 | 195 | 60 | 161 | 69 | 292 | 753 | 835 |
| 15:30 | 15:45 | 33 | 81 | 32 | 146 | 39 | 98 | 44 | 181 | 684 | 32 | 106 | 43 | 181 | 67 | 227 | 36 | 330 | 684 | 838 |
| 15:45 | 16:00 | 47 | 62 | 22 | 131 | 33 | 105 | 25 | 163 | 601 | 32 | 75 | 43 | 150 | 36 | 127 | 29 | 192 | 601 | 636 |
| 16:00 | 16:15 | 38 | 83 | 22 | 143 | 33 | 85 | 52 | 170 | 700 | 53 | 128 | 55 | 238 | 67 | 222 | 44 | 333 | 700 | 884 |
| 16:15 | 16:30 | 48 | 79 | 19 | 146 | 41 | 91 | 46 | 178 | 711 | 51 | 179 | 42 | 272 | 50 | 194 | 74 | 318 | 711 | 914 |
| 16:30 | 16:45 | 37 | 104 | 21 | 162 | 40 | 85 | 36 | 161 | 705 | 60 | 124 | 49 | 234 | 46 | 154 | 38 | 238 | 705 | 795 |
| 16:45 | 17:00 | 23 | 86 | 13 | 122 | 34 | 94 | 26 | 154 | 644 | 38 | 151 | 60 | 249 | 35 | 150 | 55 | 240 | 644 | 765 |
| 17:00 | 17:15 | 39 | 73 | 22 | 134 | 40 | 98 | 38 | 176 | 624 | 29 | 117 | 33 | 179 | 36 | 159 | 45 | 240 | 624 | 729 |
| 17:15 | 17:30 | 44 | 74 | 20 | 138 | 42 | 68 | 32 | 142 | 585 | 25 | 92 | 46 | 164 | 42 | 136 | 50 | 228 | 585 | 672 |
| 17:30 | 17:45 | 40 | 62 | 17 | 119 | 30 | 68 | 26 | 124 | 523 | 26 | 87 | 49 | 162 | 38 | 105 | 37 | 180 | 523 | 585 |
| Total: | | 447 | 947 | 277 | 1671 | 448 | 1064 | 460 | 1972 | 7836 | 457 | 1415 | 545 | 2421 | 592 | 2032 | 588 | 3215 | 7836 | 9,279 |

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

PM Period Cyclist Volume

| Time Period | ALTA VISTA DR | | | SMYTH RD | | | Grand Total |
|-------------|---------------|------------|--------------|-----------|-----------|--------------|-------------|
| | Northbound | Southbound | Street Total | Eastbound | Westbound | Street Total | |
| 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 | 1 | 0 | 1 | 1 |
| 17:45 18:00 | 0 | 1 | 1 | 0 | 3 | 3 | 4 |
| 15:45 16:00 | 1 | 0 | 1 | 2 | 0 | 2 | 3 |
| 16:00 16:15 | 3 | 0 | 3 | 1 | 2 | 3 | 6 |
| 16:15 16:30 | 1 | 1 | 2 | 1 | 1 | 2 | 4 |
| 16:30 16:45 | 0 | 0 | 0 | 0 | 2 | 2 | 2 |
| 16:45 17:00 | 1 | 1 | 2 | 0 | 0 | 0 | 2 |
| 17:00 17:15 | 0 | 1 | 1 | 2 | 2 | 4 | 5 |
| 17:15 17:30 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 17:30 17:45 | 1 | 0 | 1 | 0 | 2 | 2 | 3 |
| Total | 8 | 4 | 12 | 7 | 12 | 19 | 31 |



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No:

42262

Start Time: 07:00

Device:

Miovision

PM Period Pedestrian Volume

| Time Period | ALTA VISTA DR | | SMYTH RD | | Total | Grand Total |
|-------------|----------------------------------|----------------------------------|----------|----------------------------------|----------------------------------|-------------|
| | 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) | |
| 15:00 15:15 | 1 | 3 | 4 | 0 | 3 | 3 |
| 15:15 15:30 | 2 | 0 | 2 | 0 | 0 | 2 |
| 15:30 15:45 | 3 | 1 | 4 | 0 | 0 | 0 |
| 17:45 18:00 | 2 | 0 | 2 | 0 | 0 | 0 |
| 15:45 16:00 | 5 | 8 | 13 | 2 | 3 | 5 |
| 16:00 16:15 | 2 | 3 | 5 | 2 | 0 | 2 |
| 16:15 16:30 | 2 | 7 | 9 | 3 | 1 | 4 |
| 16:30 16:45 | 0 | 2 | 2 | 4 | 0 | 4 |
| 16:45 17:00 | 1 | 3 | 4 | 3 | 0 | 3 |
| 17:00 17:15 | 0 | 6 | 6 | 0 | 2 | 2 |
| 17:15 17:30 | 0 | 3 | 3 | 1 | 1 | 2 |
| 17:30 17:45 | 1 | 1 | 2 | 0 | 1 | 1 |
| Total | 19 | 37 | 56 | 15 | 11 | 26 |
| | | | | | | 82 |



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

PM Period Heavy Vehicles

ALTA VISTA DR

SMYTH RD

| Time Period | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | Grand Total | | | | | | | | |
|-------------|------------|----|----|------------|----|----|-----------|---|-----|-----------|----|----|-------------|-----|----|----|----|-----|-----|-----|--|
| | LT | ST | RT | N | LT | ST | RT | S | STR | LT | ST | RT | E | LT | ST | RT | W | STR | TOT | TOT | |
| 15:00 | 1 | 1 | 1 | 4 | 0 | 1 | 2 | 7 | 11 | 1 | 8 | 0 | 18 | 0 | 6 | 2 | 17 | 35 | 23 | | |
| 15:15 | 0 | 2 | 1 | 8 | 1 | 2 | 0 | 9 | 17 | 1 | 11 | 1 | 15 | 2 | 2 | 3 | 20 | 35 | 26 | | |
| 15:30 | 0 | 3 | 1 | 7 | 1 | 2 | 0 | 7 | 14 | 0 | 10 | 1 | 15 | 0 | 4 | 1 | 17 | 32 | 23 | | |
| 17:45 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 4 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 4 | 4 | | |
| 15:45 | 0 | 0 | 1 | 7 | 0 | 3 | 0 | 3 | 10 | 0 | 9 | 0 | 15 | 3 | 6 | 0 | 19 | 34 | 22 | | |
| 16:00 | 1 | 2 | 0 | 5 | 0 | 2 | 0 | 7 | 12 | 0 | 3 | 0 | 8 | 0 | 2 | 3 | 8 | 16 | 14 | | |
| 16:15 | 2 | 2 | 0 | 6 | 1 | 1 | 0 | 7 | 13 | 1 | 10 | 0 | 18 | 1 | 5 | 2 | 19 | 37 | 25 | | |
| 16:30 | 0 | 0 | 1 | 4 | 0 | 1 | 0 | 3 | 7 | 1 | 8 | 0 | 14 | 2 | 5 | 1 | 17 | 31 | 19 | | |
| 16:45 | 0 | 3 | 0 | 4 | 0 | 1 | 0 | 4 | 8 | 0 | 7 | 0 | 11 | 0 | 4 | 0 | 11 | 22 | 15 | | |
| 17:00 | 2 | 0 | 0 | 4 | 1 | 2 | 0 | 4 | 8 | 1 | 7 | 0 | 13 | 0 | 3 | 0 | 11 | 24 | 16 | | |
| 17:15 | 0 | 1 | 0 | 2 | 2 | 1 | 0 | 5 | 7 | 1 | 5 | 0 | 8 | 0 | 2 | 0 | 9 | 17 | 12 | | |
| 17:30 | 0 | 2 | 0 | 7 | 0 | 4 | 0 | 7 | 14 | 0 | 1 | 0 | 6 | 1 | 5 | 1 | 8 | 14 | 14 | | |
| Total: | None | 6 | 16 | 5 | 60 | 6 | 22 | 2 | 65 | 125 | 6 | 79 | 2 | 143 | 9 | 46 | 13 | 158 | 301 | 213 | |



Transportation Services - Traffic Services

Turning Movement Count - Study Results

ALTA VISTA DR @ SMYTH RD

Survey Date: Wednesday, October 02, 2024

WO No: 42262

Start Time: 07:00

Device: Miovision

PM Period 15 Minute U-Turn Total

ALTA VISTA DR

SMYTH RD

| Time Period | Northbound U-Turn Total | Southbound U-Turn Total | Eastbound U-Turn Total | Westbound U-Turn Total | Total |
|-------------|-------------------------|-------------------------|------------------------|------------------------|-------|
| 15:00 | 0 | 0 | 0 | 0 | 0 |
| 15:15 | 0 | 0 | 0 | 2 | 2 |
| 15:30 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 0 | 0 | 0 | 1 | 1 |
| 16:00 | 0 | 0 | 2 | 0 | 2 |
| 16:15 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 0 | 0 | 1 | 0 | 1 |
| 17:00 | 0 | 0 | 0 | 0 | 0 |
| 17:15 | 0 | 0 | 1 | 0 | 1 |
| 17:30 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 4 | 3 | 7 |

Appendix C

Synchro Intersection Worksheets – Existing Conditions

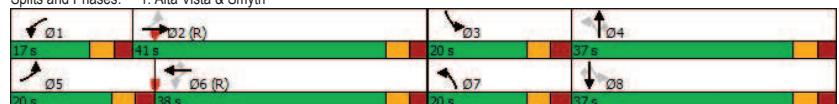
Lanes, Volumes, Timings
1: Alta Vista & Smyth

2023 Existing AM
1867 Alta Vista Drive

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| Lane Configurations | ↑ | ↑↑ | ↑ | ↑ | ↑↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| Traffic Volume (vph) | 160 | 643 | 143 | 101 | 619 | 218 | 291 | 418 | 141 | 205 | 248 | 151 |
| Future Volume (vph) | 160 | 643 | 143 | 101 | 619 | 218 | 291 | 418 | 141 | 205 | 248 | 151 |
| Satd. Flow (prot) | 1658 | 3264 | 1463 | 1610 | 3264 | 1463 | 1658 | 1684 | 1477 | 1658 | 1661 | 1471 |
| Flt Permitted | 0.207 | | | | | | 0.412 | | | 0.132 | | |
| Satd. Flow (perm) | 358 | 3264 | 1419 | 411 | 3264 | 1380 | 711 | 1684 | 1422 | 230 | 1661 | 1428 |
| Satd. Flow (RTOR) | | | 144 | | | 144 | | | 141 | | | 141 |
| Lane Group Flow (vph) | 178 | 714 | 159 | 112 | 688 | 242 | 323 | 464 | 157 | 228 | 276 | 168 |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm |
| Protected Phases | 5 | 2 | 1 | 6 | | 7 | 4 | | 4 | 3 | 8 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 4 | | 4 | 8 | | 8 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 7 | 4 | 4 | 3 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 11.0 | 24.8 | 24.8 | 11.0 | 24.8 | 24.8 | 11.1 | 29.1 | 29.1 | 11.1 | 29.1 | 29.1 |
| Total Split (s) | 20.0 | 41.0 | 41.0 | 17.0 | 38.0 | 38.0 | 20.0 | 37.0 | 37.0 | 20.0 | 37.0 | 37.0 |
| Total Split (%) | 17.4% | 35.7% | 35.7% | 14.8% | 33.0% | 33.0% | 17.4% | 32.2% | 32.2% | 17.4% | 32.2% | 32.2% |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.7 | 2.5 | 2.5 | 2.7 | 2.5 | 2.5 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 5.8 | 5.8 | 6.0 | 5.8 | 5.8 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None | None |
| Act Effct Green (s) | 48.6 | 36.6 | 36.6 | 43.4 | 34.0 | 34.0 | 45.1 | 31.2 | 31.2 | 44.5 | 30.9 | 30.9 |
| Actuated g/C Ratio | 0.42 | 0.32 | 0.32 | 0.38 | 0.30 | 0.30 | 0.39 | 0.27 | 0.27 | 0.39 | 0.27 | 0.27 |
| v/c Ratio | 0.62 | 0.69 | 0.29 | 0.44 | 0.71 | 0.48 | 0.82 | 1.02 | 0.32 | 0.88 | 0.62 | 0.35 |
| Control Delay | 29.3 | 38.6 | 7.7 | 24.8 | 41.4 | 17.2 | 43.2 | 89.0 | 9.1 | 61.5 | 44.0 | 10.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 29.3 | 38.6 | 7.7 | 24.8 | 41.4 | 17.2 | 43.2 | 89.0 | 9.1 | 61.5 | 44.0 | 10.3 |
| LOS | C | D | A | C | D | B | D | F | A | E | D | B |
| Approach Delay | | 32.4 | | | 34.0 | | | 60.0 | | | 41.5 | |
| Approach LOS | | C | | | C | | | E | | | D | |
| Queue Length 50th (m) | 24.0 | 74.1 | 2.3 | 14.5 | 73.4 | 16.9 | 49.3 | ~111.5 | 2.7 | 35.4 | 54.6 | 4.5 |
| Queue Length 95th (m) | 39.0 | 96.4 | 17.5 | 25.6 | 96.0 | 41.5 | #87.5 | #173.4 | 18.6 | #78.8 | 82.9 | 21.4 |
| Internal Link Dist (m) | | 141.5 | | | 873.5 | | | 174.7 | | | 326.9 | |
| Turn Bay Length (m) | 20.0 | | 5.0 | 30.0 | | 15.0 | 30.0 | | 10.0 | 30.0 | | 20.0 |
| Base Capacity (vph) | 314 | 1039 | 550 | 274 | 965 | 509 | 393 | 456 | 488 | 262 | 446 | 486 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.57 | 0.69 | 0.29 | 0.41 | 0.71 | 0.48 | 0.82 | 1.02 | 0.32 | 0.87 | 0.62 | 0.35 |
| Intersection Summary | | | | | | | | | | | | |
| Cycle Length: 115 | | | | | | | | | | | | |
| Actuated Cycle Length: 115 | | | | | | | | | | | | |
| Offset: 2 (2%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | | | | | | | | | | |
| Natural Cycle: 90 | | | | | | | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | | | | | | | |

Lanes, Volumes, Timings
1: Alta Vista & Smyth

2023 Existing AM
1867 Alta Vista Drive

| | | |
|---|---------------------------------|---------------------|
| Maximum v/c Ratio: 1.02 | Intersection Signal Delay: 41.5 | Intersection LOS: D |
| Intersection Capacity Utilization 82.6% | ICU Level of Service E | |
| Analysis Period (min) 15 | | |
| ~ Volume exceeds capacity, queue is theoretically infinite. | | |
| Queue shown is maximum after two cycles. | | |
| # 95th percentile volume exceeds capacity, queue may be longer. | | |
| Queue shown is maximum after two cycles. | | |
| Splits and Phases: 1: Alta Vista & Smyth | | |
|  | | |

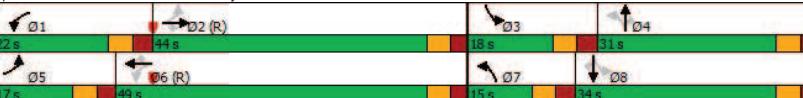
Lanes, Volumes, Timings
1: Alta Vista & Smyth

2023 Existing PM
1867 Alta Vista Drive

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|--------|-------|
| Lane Configurations | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ | ↑ |
| Traffic Volume (vph) | 183 | 544 | 174 | 254 | 854 | 207 | 150 | 308 | 94 | 152 | 371 | 187 |
| Future Volume (vph) | 183 | 544 | 174 | 254 | 854 | 207 | 150 | 308 | 94 | 152 | 371 | 187 |
| Satd. Flow (prot) | 1658 | 3202 | 1477 | 1658 | 3296 | 1477 | 1658 | 1701 | 1463 | 1642 | 1701 | 1477 |
| Flt Permitted | 0.167 | | | | | 0.167 | | | 0.209 | | | |
| Satd. Flow (perm) | 288 | 3202 | 1387 | 488 | 3296 | 1360 | 290 | 1701 | 1429 | 360 | 1701 | 1443 |
| Satd. Flow (RTOR) | | | 144 | | | 144 | | | 141 | | | 141 |
| Lane Group Flow (vph) | 203 | 604 | 193 | 282 | 949 | 230 | 167 | 342 | 104 | 169 | 412 | 208 |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm |
| Protected Phases | 5 | 2 | 1 | 6 | 6 | 7 | 4 | 4 | 3 | 8 | | |
| Permitted Phases | 2 | 2 | 6 | 6 | 4 | | 4 | 8 | | 8 | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 7 | 4 | 4 | 3 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 11.0 | 24.8 | 24.8 | 11.0 | 24.8 | 24.8 | 11.1 | 29.1 | 29.1 | 11.1 | 29.1 | 29.1 |
| Total Split (s) | 17.0 | 44.0 | 44.0 | 22.0 | 49.0 | 49.0 | 15.0 | 31.0 | 31.0 | 18.0 | 34.0 | 34.0 |
| Total Split (%) | 14.8% | 38.3% | 38.3% | 19.1% | 42.6% | 42.6% | 13.0% | 27.0% | 27.0% | 15.7% | 29.6% | 29.6% |
| Yellow Time (s) | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.7 | 2.5 | 2.5 | 2.7 | 2.5 | 2.5 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.0 | 5.8 | 5.8 | 6.0 | 5.8 | 5.8 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None | None |
| Act Effct Green (s) | 49.9 | 39.4 | 39.4 | 58.1 | 43.5 | 43.5 | 34.3 | 25.4 | 25.4 | 39.3 | 27.9 | 27.9 |
| Actuated g/C Ratio | 0.43 | 0.34 | 0.34 | 0.51 | 0.38 | 0.38 | 0.30 | 0.22 | 0.22 | 0.34 | 0.24 | 0.24 |
| v/c Ratio | 0.81 | 0.55 | 0.34 | 0.71 | 0.76 | 0.38 | 0.87 | 0.91 | 0.24 | 0.68 | 1.00 | 0.46 |
| Control Delay | 44.3 | 33.2 | 10.2 | 26.8 | 36.2 | 11.8 | 67.6 | 73.1 | 3.9 | 40.2 | 88.6 | 16.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 44.3 | 33.2 | 10.2 | 26.8 | 36.2 | 11.8 | 67.6 | 73.1 | 3.9 | 40.2 | 88.6 | 16.3 |
| LOS | D | C | B | C | D | B | E | E | A | D | F | B |
| Approach Delay | 31.0 | | | 30.5 | | | 59.8 | | | 59.2 | | |
| Approach LOS | C | | | C | | | E | | | E | | |
| Queue Length 50th (m) | 23.9 | 58.5 | 7.6 | 35.2 | 97.4 | 12.8 | 25.9 | 76.0 | 0.0 | 26.3 | 93.1 | 12.0 |
| Queue Length 95th (m) | #59.0 | 76.6 | 25.1 | 53.4 | 122.4 | 32.4 | #60.1 | #129.8 | 6.7 | #43.9 | #156.0 | 33.9 |
| Internal Link Dist (m) | 141.5 | | | 873.5 | | | 174.7 | | | 326.9 | | |
| Turn Bay Length (m) | 20.0 | 5.0 | 30.0 | | 15.0 | 30.0 | | 10.0 | 30.0 | | 20.0 | |
| Base Capacity (vph) | 256 | 1098 | 570 | 414 | 1247 | 603 | 192 | 376 | 425 | 257 | 412 | 456 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.79 | 0.55 | 0.34 | 0.68 | 0.76 | 0.38 | 0.87 | 0.91 | 0.24 | 0.66 | 1.00 | 0.46 |
| Intersection Summary | | | | | | | | | | | | |
| Cycle Length: 115 | | | | | | | | | | | | |
| Actuated Cycle Length: 115 | | | | | | | | | | | | |
| Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | | | | | | | | | | |
| Natural Cycle: 90 | | | | | | | | | | | | |
| Control Type: Actuated-Coordinated | | | | | | | | | | | | |

Lanes, Volumes, Timings
1: Alta Vista & Smyth

2023 Existing PM
1867 Alta Vista Drive

| | | |
|---|---|------------------------|
| Maximum v/c Ratio: 1.00 | Intersection Signal Delay: 41.2 | Intersection LOS: D |
| | Intersection Capacity Utilization 85.0% | ICU Level of Service E |
| | Analysis Period (min) 15 | |
| # | 95th percentile volume exceeds capacity, queue may be longer. | |
| | Queue shown is maximum after two cycles. | |
| Splits and Phases: 1: Alta Vista & Smyth | | |
|  | | |

Appendix D

Collision Data

| Accident Date | Accident Year | Accident Time | Location | Environment Condition | Light | Traffic Control | Traffic Control Condition | Classification Of Accident | Initial Impact Type | Road Surface Condition | # Vehicles | # Motorcycles | # Bicycles | # Pedestrians |
|---------------|---------------|---------------|--|-----------------------|---------------|---------------------|---------------------------|----------------------------|-----------------------|------------------------|------------|---------------|------------|---------------|
| 2018-01-16 | 2018 | 14:00 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 05 - Turning movement | 02 - Wet | 2 | 0 | 0 | 0 |
| 2018-02-10 | 2018 | 22:38 | ALTA VISTA DR @ SMYTH RD (0011353) | 03 - Snow | 07 - Dark | 01 - Traffic signal | 0 | 03 - P.D. only | 05 - Turning movement | 04 - Slush | 2 | 0 | 0 | 0 |
| 2018-02-25 | 2018 | 9:45 | ALTA VISTA DR @ SMYTH RD (0011353) | 04 - Freezing Rain | 01 - Daylight | 01 - Traffic signal | 0 | 02 - Non-fatal injury | 03 - Rear end | 06 - Ice | 2 | 0 | 0 | 0 |
| 2018-03-08 | 2018 | 10:53 | ALTA VISTA DR @ SMYTH RD (0011353) | 03 - Rain | 05 - Dusk | 01 - Traffic signal | 0 | 03 - P.D. only | 03 - Rear end | 06 - Ice | 2 | 0 | 0 | 0 |
| 2018-03-29 | 2018 | 14:33 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 04 - SideSwipe | 02 - Wet | 2 | 0 | 0 | 0 |
| 2018-05-26 | 2018 | 10:13 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 05 - Turning movement | 02 - Wet | 2 | 0 | 0 | 0 |
| 2018-05-30 | 2018 | 13:00 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 05 - Turning movement | 01 - Dry | 2 | 0 | 0 | 0 |
| 2018-06-26 | 2018 | 8:56 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 05 - Turning movement | 01 - Dry | 2 | 0 | 0 | 0 |
| 2018-07-12 | 2018 | 22:16 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 07 - Dark | 01 - Traffic signal | 0 | 03 - P.D. only | 05 - Turning movement | 01 - Dry | 2 | 0 | 0 | 0 |
| 2018-07-17 | 2018 | 12:11 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 04 - SideSwipe | 01 - Dry | 2 | 0 | 0 | 0 |
| 2018-08-03 | 2018 | 21:00 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 05 - Turning movement | 01 - Dry | 2 | 0 | 0 | 0 |
| 2018-09-17 | 2018 | 10:39 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 02 - Non-fatal injury | 03 - Rear end | 01 - Dry | 2 | 0 | 0 | 0 |
| 2018-09-19 | 2018 | 12:30 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 05 - Dusk | 01 - Traffic signal | 0 | 03 - P.D. only | 05 - Turning movement | 01 - Dry | 2 | 0 | 0 | 0 |
| 2018-11-17 | 2018 | 17:13 | ALTA VISTA DR @ SMYTH RD (0011353) | 02 - Rain | 07 - Dark | 01 - Traffic signal | 0 | 03 - P.D. only | 05 - Turning movement | 02 - Wet | 2 | 0 | 0 | 0 |
| 2018-11-26 | 2018 | 17:20 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 04 - SideSwipe | 02 - Wet | 2 | 0 | 0 | 0 |
| 2018-12-06 | 2018 | 10:15 | ALTA VISTA DR @ SMYTH RD (0011353) | 03 - Snow | 03 - Dawn | 01 - Traffic signal | 0 | 03 - P.D. only | 03 - Rear end | 06 - Ice | 2 | 0 | 0 | 0 |
| 2019-04-09 | 2019 | 6:48 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 03 - Rear end | 01 - Dry | 2 | 0 | 0 | 0 |
| 2019-04-16 | 2019 | 7:43 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 03 - Rear end | 01 - Dry | 2 | 0 | 0 | 0 |
| 2019-04-24 | 2019 | 19:05 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 03 - Rear end | 01 - Dry | 2 | 0 | 0 | 0 |
| 2019-05-04 | 2019 | 10:06 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 07 - Dark | 01 - Traffic signal | 0 | 03 - P.D. only | 05 - Turning movement | 01 - Dry | 2 | 0 | 0 | 0 |
| 2019-05-07 | 2019 | 19:35 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 03 - Rear end | 01 - Dry | 2 | 0 | 0 | 0 |
| 2019-07-09 | 2019 | 9:30 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 03 - Rear end | 01 - Dry | 2 | 0 | 0 | 0 |
| 2019-07-11 | 2019 | 19:50 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 03 - Rear end | 01 - Dry | 2 | 0 | 0 | 0 |
| 2019-07-17 | 2019 | 17:10 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 05 - Turning movement | 01 - Dry | 2 | 0 | 0 | 0 |
| 2019-08-01 | 2019 | 16:58 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 05 - Turning movement | 01 - Dry | 2 | 0 | 0 | 0 |
| 2019-08-05 | 2019 | 16:25 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 03 - Rear end | 01 - Dry | 2 | 0 | 0 | 0 |
| 2019-08-13 | 2019 | 19:31 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 03 - Rear end | 01 - Dry | 2 | 0 | 0 | 0 |
| 2019-08-28 | 2019 | 10:30 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 03 - Rear end | 01 - Dry | 2 | 0 | 0 | 0 |
| 2019-09-27 | 2019 | 7:38 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 05 - Turning movement | 01 - Dry | 2 | 0 | 0 | 0 |
| 2019-09-30 | 2019 | 23:09 | ALTA VISTA DR @ SMYTH RD (0011353) | 02 - Rain | 07 - Dark | 01 - Traffic signal | 0 | 02 - Non-fatal injury | 05 - Turning movement | 03 - Wet | 2 | 0 | 0 | 0 |
| 2019-10-09 | 2019 | 19:03 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 05 - Dusk | 01 - Traffic signal | 0 | 02 - Non-fatal injury | 05 - Turning movement | 01 - Dry | 2 | 0 | 0 | 0 |
| 2019-10-22 | 2019 | 17:00 | ALTA VISTA DR @ SMYTH RD (0011353) | 02 - Rain | 01 - Daylight | 01 - Traffic signal | 0 | 02 - Non-fatal injury | 05 - Turning movement | 02 - Wet | 2 | 0 | 0 | 0 |
| 2019-10-25 | 2019 | 13:40 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 02 - Non-fatal injury | 05 - Turning movement | 01 - Dry | 2 | 0 | 0 | 0 |
| 2019-11-25 | 2019 | 17:03 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 05 - Turning movement | 01 - Dry | 2 | 0 | 0 | 0 |
| 2019-12-29 | 2019 | 8:41 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 02 - Non-fatal injury | 02 - Angle | 01 - Dry | 2 | 0 | 0 | 0 |
| 2020-01-30 | 2020 | 10:00 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 02 - Non-fatal injury | 02 - Angle | 03 - Loose snow | 2 | 0 | 0 | 0 |
| 2020-01-19 | 2020 | 21:01 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 07 - Dark | 01 - Traffic signal | 0 | 02 - Non-fatal injury | 03 - Rear end | 01 - Dry | 2 | 0 | 0 | 0 |
| 2020-03-27 | 2020 | 14:30 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 02 - Angle | 01 - Dry | 2 | 0 | 0 | 0 |
| 2020-06-17 | 2020 | 12:26 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 07 - Dark | 01 - Traffic signal | 0 | 02 - Non-fatal injury | 03 - Rear end | 01 - Dry | 2 | 0 | 0 | 0 |
| 2020-08-07 | 2020 | 15:01 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 03 - Rear end | 01 - Dry | 2 | 0 | 0 | 0 |
| 2021-02-16 | 2021 | 15:57 | ALTA VISTA DR @ SMYTH RD (0011353) | 03 - Snow | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 05 - Turning movement | 03 - Loose snow | 2 | 0 | 0 | 0 |
| 2021-07-26 | 2021 | 21:00 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 05 - Dusk | 01 - Traffic signal | 0 | 03 - P.D. only | 02 - Angle | 01 - Dry | 2 | 0 | 0 | 0 |
| 2021-09-10 | 2021 | 11:30 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 05 - Turning movement | 01 - Dry | 2 | 0 | 0 | 0 |
| 2021-10-20 | 2021 | 19:21 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 03 - Rear end | 01 - Dry | 2 | 0 | 0 | 0 |
| 2021-11-10 | 2021 | 8:15 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 03 - Rear end | 01 - Dry | 2 | 0 | 0 | 0 |
| 2021-11-11 | 2021 | 7:56 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 02 - Non-fatal injury | 07 - SMV other | 01 - Dry | 1 | 0 | 0 | 1 |
| 2021-11-23 | 2021 | 21:00 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 07 - Dark | 01 - Traffic signal | 0 | 03 - P.D. only | 03 - Rear end | 01 - Dry | 2 | 0 | 0 | 0 |
| 2021-12-02 | 2021 | 6:46 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 07 - Dark | 01 - Traffic signal | 0 | 02 - Non-fatal injury | 03 - Rear end | 01 - Dry | 2 | 0 | 0 | 0 |
| 2021-12-10 | 2021 | 8:36 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 02 - Non-fatal injury | 05 - Turning movement | 04 - Slush | 2 | 0 | 0 | 0 |
| 2022-01-19 | 2022 | 7:35 | ALTA VISTA DR @ SMYTH RD (0011353) | 03 - Snow | 03 - Dawn | 01 - Traffic signal | 0 | 03 - P.D. only | 05 - Turning movement | 05 - Packed snow | 2 | 0 | 0 | 0 |
| 2022-01-31 | 2022 | 15:36 | ALTA VISTA DR @ SMYTH RD (0011353) | 03 - Snow | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 05 - Turning movement | 05 - Packed snow | 2 | 0 | 0 | 0 |
| 2022-02-05 | 2022 | 19:21 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 04 - Traffic signal | 0 | 03 - P.D. only | 05 - Turning movement | 01 - Dry | 2 | 0 | 0 | 0 |
| 2022-02-08 | 2022 | 18:11 | ALTA VISTA DR @ SMYTH RD (0011353) | 01 - Clear | 01 - Daylight | 01 - Traffic signal | 0 | 03 - P.D. only | 03 - Rear end | 01 - Dry | 2 | 0 | 0 | 0 |
| 2018-01-13 | 2018 | 12:30 | ALTA VISTA DR btwn SMYTH RD & VALOUR DR (4000NL) | 05 - Drifting Snow | 01 - Daylight | 10 - No control | 0 | 03 - P.D. only | 07 - SMV other | 05 - Packed snow | 1 | 0 | 0 | 0 |
| 2019-10-11 | 2019 | 12:20 | ALTA VISTA DR btwn SMYTH RD & VALOUR DR (4000NL) | 01 - Clear | 01 - Daylight | 10 - No control | 0 | 03 - P.D. only | 07 - SMV other | 01 - Dry | 2 | 0 | 0 | 0 |
| 2022-04-27 | 2022 | 15:18 | ALTA VISTA DR btwn SMYTH RD & VALOUR DR (4000NL) | 01 - Clear | 01 - Daylight | 10 - No control | 0 | 02 - Non-fatal injury | 01 - Approaching | 01 - Dry | 2 | 0 | 0 | 0 |



Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2019 To: December 31, 2024

Location: ALTA VISTA DR @ SMYTH RD

Traffic Control: Traffic signal

Total Collisions: 46

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuvre | Vehicle type | First Event | No. Ped |
|------------------------|-------------|------------------|----------------|----------------|----------|---------------------|---------------------------|---------------------|---------|
| 2019-Apr-09, Tue,06:48 | Snow | Rear end | P.D. only | Ice | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Apr-16, Tue,07:43 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Apr-24, Wed,19:05 | Clear | Rear end | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2019-May-04, Sat,23:06 | Clear | Turning movement | P.D. only | Dry | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-May-07, Tue,19:25 | Clear | Rear end | P.D. only | Dry | South | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2019-Jul-09, Tue,09:30 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Jul-11, Thu,19:50 | Clear | Rear end | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning right | Unknown | Other motor vehicle | |
| 2019-Jul-17, Wed,17:10 | Clear | Turning movement | P.D. only | Dry | East | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Aug-01, Thu,16:58 | Clear | Turning movement | P.D. only | Dry | South | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Aug-05, Mon,16:25 | Clear | Rear end | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning right | Passenger van | Other motor vehicle | |
| 2019-Aug-13, Tue,19:33 | Clear | Rear end | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2019-Aug-28, Wed,16:30 | Clear | Rear end | P.D. only | Dry | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |

August 22, 2025

Page 1 of 10



Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2019 To: December 31, 2024

Location: ALTA VISTA DR @ SMYTH RD

Traffic Control: Traffic signal

Total Collisions: 46

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuvre | Vehicle type | First Event | No. Ped |
|------------------------|-------------|------------------|------------------|----------------|----------|-------------------|---------------------------|---------------------|---------|
| 2019-Sep-27, Fri,07:38 | Clear | Turning movement | P.D. only | Dry | West | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Sep-30, Mon,23:09 | Rain | Turning movement | Non-fatal injury | Wet | West | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Oct-09, Wed,19:03 | Clear | Turning movement | Non-fatal injury | Dry | South | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Oct-22, Tue,17:00 | Rain | Turning movement | Non-fatal injury | Wet | West | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Oct-25, Fri,13:40 | Clear | Turning movement | Non-fatal injury | Dry | West | Turning left | Delivery van | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Nov-25, Mon,17:03 | Clear | Turning movement | P.D. only | Dry | East | Turning left | Passenger van | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Nov-29, Fri,08:38 | Clear | Angle | Non-fatal injury | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning left | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2019-Nov-30, Sat,12:00 | Clear | Rear end | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Unknown | Other motor vehicle | |
| 2020-Jan-19, Sun,21:01 | Clear | Angle | Non-fatal injury | Loose snow | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2020-Mar-27, Fri,14:30 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Pick-up truck | Other motor vehicle | |
| 2020-Jun-17, Wed,12:26 | Clear | Angle | P.D. only | Dry | North | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Ambulance | Other motor vehicle | |

August 22, 2025

Page 2 of 10



Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2019 To: December 31, 2024

Location: ALTA VISTA DR @ SMYTH RD

Traffic Control: Traffic signal

Total Collisions: 46

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuvre | Vehicle type | First Event | No. Ped |
|------------------------|-------------|------------------|------------------|----------------|----------|---------------------|---------------------------|---------------------|---------|
| 2020-Aug-07, Fri,15:01 | Clear | Rear end | P.D. only | Dry | West | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2021-Feb-16, Tue,15:57 | Snow | Turning movement | P.D. only | Loose snow | West | Turning left | Passenger van | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2021-Jul-26, Mon,21:00 | Clear | Angle | P.D. only | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2021-Sep-16, Thu,11:30 | Clear | Turning movement | P.D. only | Dry | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2021-Oct-10, Sun,16:25 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Unknown | Other motor vehicle | 0 |
| | | | | | South | Stopped | Pick-up truck | Other motor vehicle | |
| 2021-Nov-10, Wed,08:15 | Clear | Rear end | P.D. only | Dry | North | Turning right | Pick-up truck | Other motor vehicle | 0 |
| | | | | | North | Turning right | Pick-up truck | Other motor vehicle | |
| 2021-Nov-11, Thu,07:56 | Clear | SMV other | Non-fatal injury | Dry | South | Turning left | Unknown | Pedestrian | 1 |
| 2021-Nov-23, Tue,21:00 | Clear | Rear end | P.D. only | Dry | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2021-Dec-02, Thu,06:40 | Clear | Rear end | Non-fatal injury | Dry | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2021-Dec-10, Fri,08:06 | Clear | Turning movement | Non-fatal injury | Slush | West | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2022-Jan-19, Wed,07:35 | Clear | Turning movement | P.D. only | Packed snow | East | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Pick-up truck | Other motor vehicle | |
| 2022-Jan-31, Mon,15:36 | Snow | Turning movement | P.D. only | Packed snow | East | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |

August 22, 2025

Page 3 of 10



Transportation Services - Traffic Services

Collision Details Report - Public Version

From: January 1, 2019 To: December 31, 2024

Location: ALTA VISTA DR @ SMYTH RD

Traffic Control: Traffic signal

Total Collisions: 46

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuvre | Vehicle type | First Event | No. Ped |
|------------------------|-------------|------------------|------------------|----------------|----------|-------------------|---------------------------|---------------------|---------|
| 2022-Feb-17, Thu,19:00 | Snow | Rear end | P.D. only | Ice | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Pick-up truck | Other motor vehicle | |
| 2022-May-09, Mon,19:21 | Clear | Turning movement | P.D. only | Dry | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2022-May-23, Mon,09:52 | Clear | Angle | Non-fatal injury | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2022-Jun-08, Wed,18:11 | Clear | Rear end | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2022-Dec-20, Tue,16:10 | Clear | Turning movement | P.D. only | Dry | East | Stopped | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2024-Feb-29, Thu,10:25 | Clear | Turning movement | P.D. only | Dry | West | Going ahead | Delivery van | Other motor vehicle | 0 |
| | | | | | East | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2024-May-15, Wed,22:00 | Clear | Turning movement | P.D. only | Dry | West | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2024-Jun-04, Tue,09:00 | Clear | Rear end | P.D. only | Dry | North | Stopped | Pick-up truck | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2024-Jul-04, Thu,06:40 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2024-Jul-26, Fri,17:30 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2024-Sep-02, Mon,11:56 | Clear | Angle | Non-fatal injury | Dry | West | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |

August 22, 2025

Page 4 of 10

Appendix E

TDM Checklists

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

| Legend | | |
|---------------|--|--|
| BASIC | The measure is generally feasible and effective, and in most cases would benefit the development and its users | |
| BETTER | The measure could maximize support for users of sustainable modes, and optimize development performance | |
| ★ | The measure is one of the most dependably effective tools to encourage the use of sustainable modes | |

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

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

| TDM measures: <i>Residential developments</i> | | Check if proposed & add descriptions |
|---|---|--------------------------------------|
| 6. TDM MARKETING & COMMUNICATIONS | | |
| 6.1 Multimodal travel information | | |
| BASIC | ★ 6.1.1 Provide a multimodal travel option information package to new residents | <input checked="" type="checkbox"/> |
| 6.2 Personalized trip planning | | |
| BETTER | ★ 6.2.1 Offer personalized trip planning to new residents | <input type="checkbox"/> |

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

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

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

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

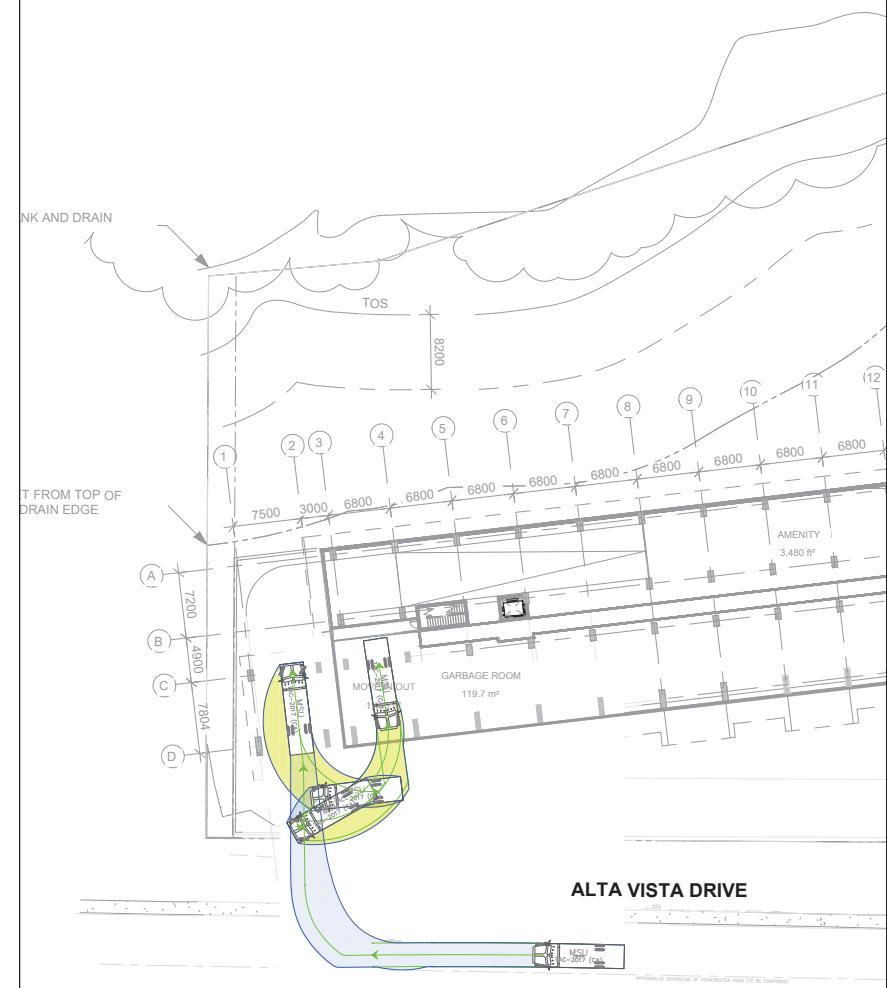
| TDM-supportive design & infrastructure measures: <i>Residential developments</i> | | Check if completed & add descriptions, explanations or plan/drawing references |
|---|--|--|
| 2. WALKING & CYCLING: END-OF-TRIP FACILITIES | | |
| 2.1 Bicycle parking | | |
| REQUIRED | 2.1.1 Provide bicycle parking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

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

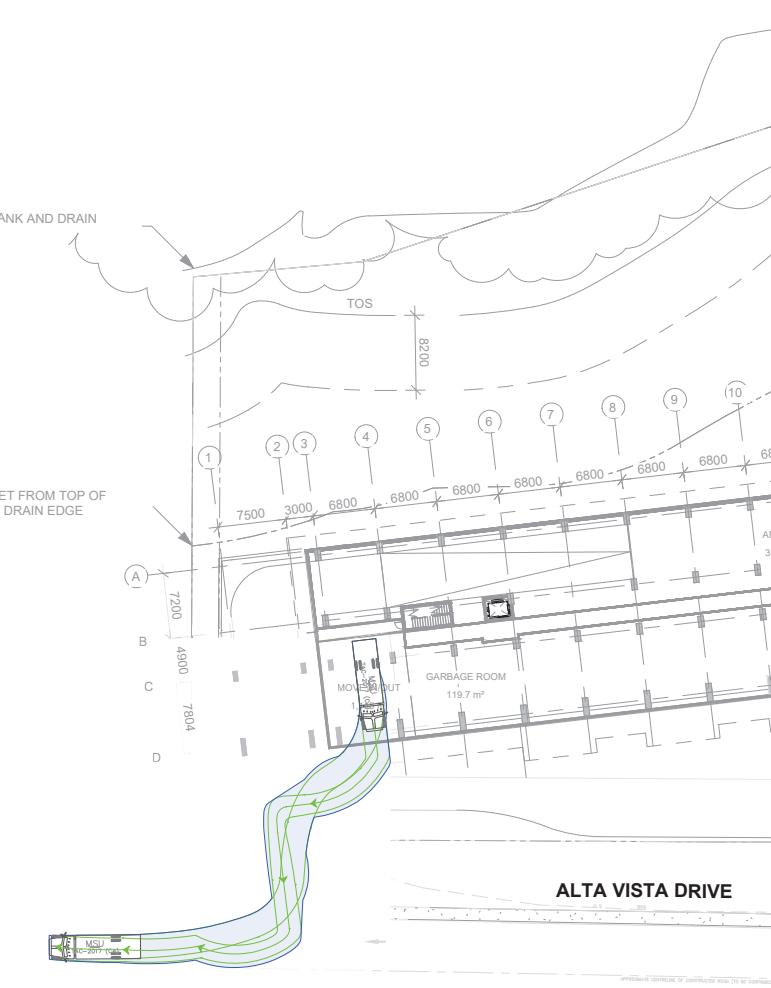
Appendix F

Turning Templates

Move-In Inbound Movement



Move-In Outbound Movement



Notes:

Key Plan:

10000 mm

10000 mm

800 mm 6500 mm

MSU

Width : 2600 mm
Track : 2600 mm
Lock to Lock Time: 6.0
Steering Angle: 40.2

02 Issued for Review: EA 2025-12-17

REF. DESCRIPTION DATE STATUS

CGH Transportation

6 Plaza Court
Ottawa, ON
K2G 3Z1
(343) 999-9117

CLIENT: SOUL ALTA VISTA GP INC.

ARCHITECT:

SITE: 1867 ALTA VISTA

TITLE: Turning Movements (1)

| | | | |
|----------------------|------------------|--------------|-------------|
| SCALE AT A.S.: NTS | DATE: 2025-12-17 | DRAWN: EA | CHECKED: JK |
| PRODUCT NO. 2025-050 | DRAWING NO. 001 | REVISION: 02 | |

Move-In Inbound Movement



Move-In Outbound Movement



Notes:

Key Plan:

HSU

mm

Width : 2600
Track : 2600
Lock to Lock Time : 6.0
Steering Angle : 40.0

02 Issued for Review: EA 2025-12-17

REF. DESCRIPTION STATUS

CGH Transportation

6 Plaza Court
Ottawa, ON
K2G 3Z1
(343) 999-9117

CLIENT: SOUL ALTA VISTA GP INC.

ARCHITECT:

SITE: 1867 ALTA VISTA

TITLE: Turning Movements (2)

SCALE AT AS: DATE: DRAWN BY: CHECKED:

NTS 2025-12-17 EA JK

PRODUCT NO. DRAWING NO. REVIEW NO.

2025-050 002 02

Garbage Collection Inbound Movement

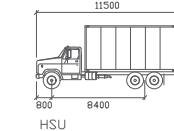


Garbage Collection Outbound Movement



Notes:

Key Plan:



HSU
Width: 2600
Track: 2600
Lock to Lock Time: 6.0
Steering Angle: 40.0

02 Issued for Review: EA 2025-12-17
Rev. Description: Site
Status:



CGH Transportation
6 Plaza Court
Ottawa, ON
K2G 3Z1
(343) 999-9117

CLIENT: SOUL ALTA VISTA GP INC.

ARCHITECT:

SITE:

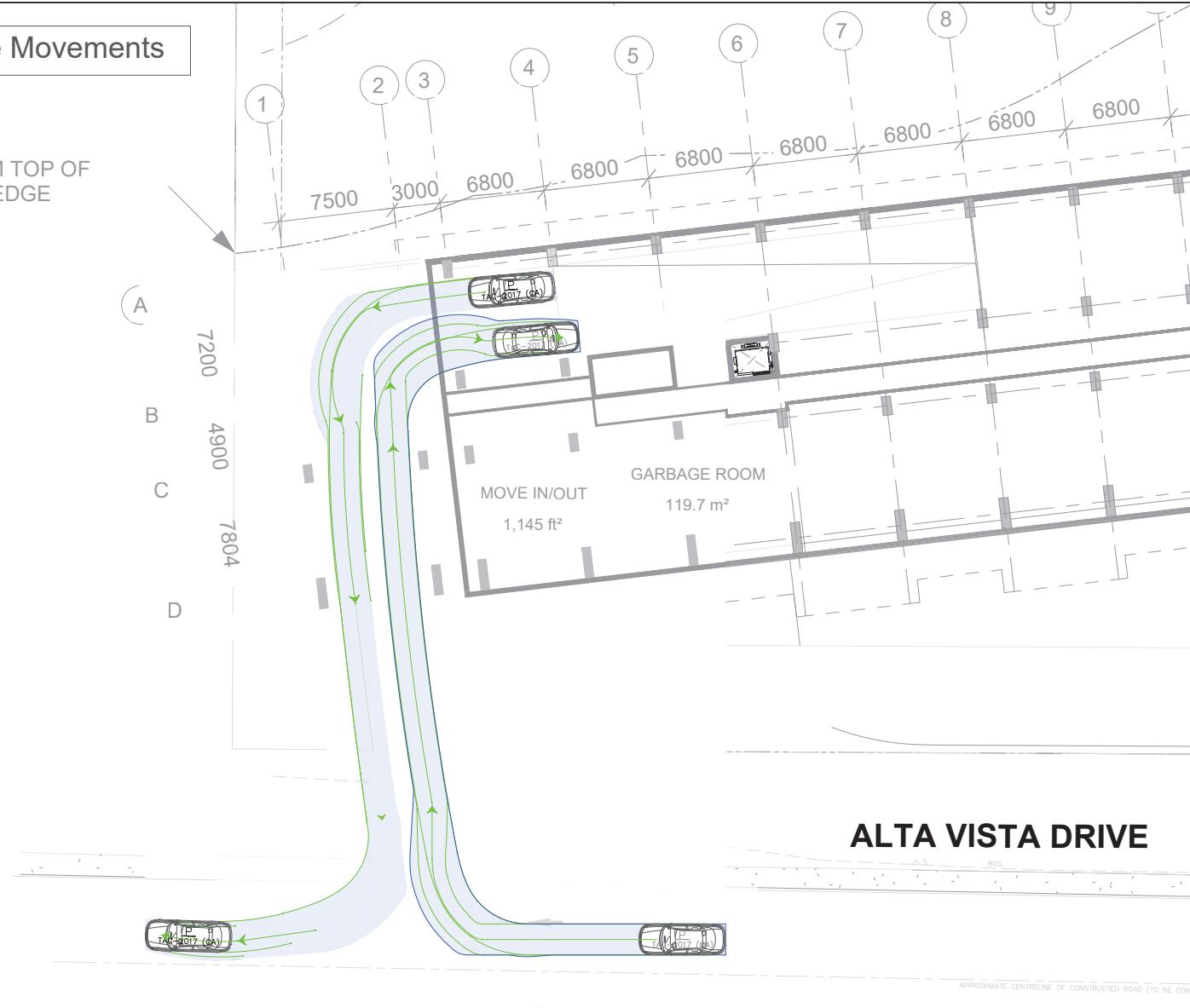
1867 ALTA VISTA

TITLE: Turning Movements (3)

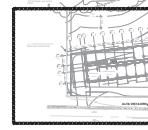
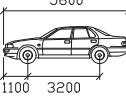
| | | | |
|--------------|-------------|-----------|----------|
| SCALE AT AS: | DATE: | DRAWN: | CHECKED: |
| NTS | 2025-12-17 | EA | JK |
| PRODUCT NO. | DRAWING NO. | REVISION: | |
| 2025-050 | 003 | 02 | |

Passenger Vehicle Movements

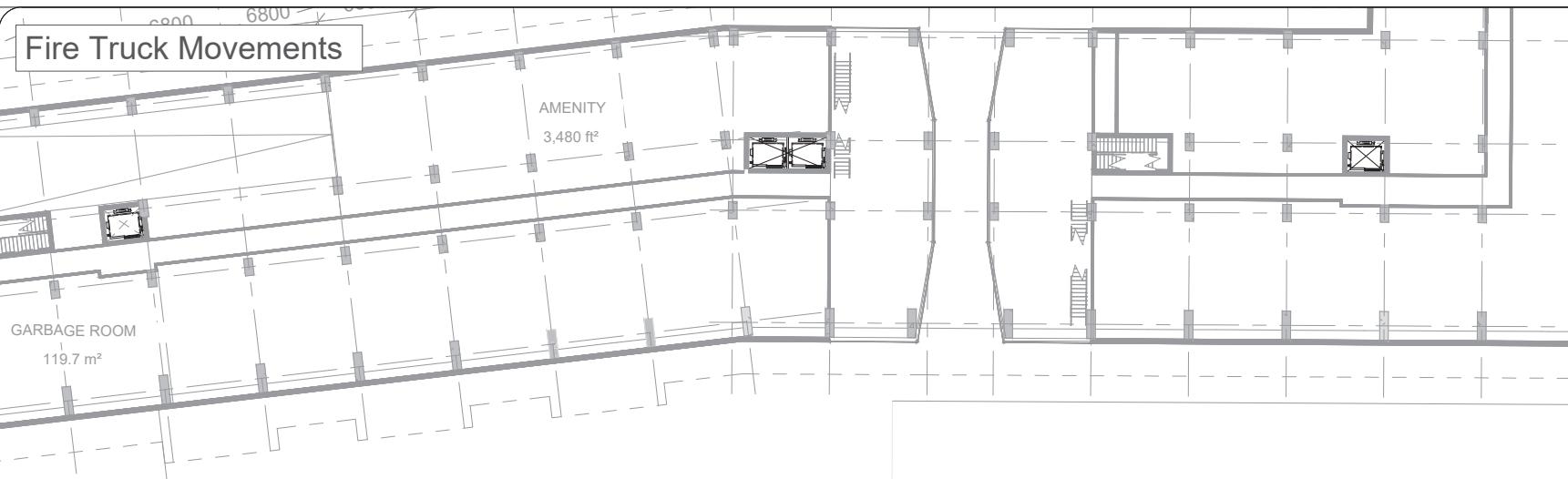
30m OFFSET FROM TOP OF BANK AND DRAIN EDGE



ALTA VISTA DRIVE

| Notes: | | | |
|---|--|--------------|--|
| Key Plan: | | | |
|  | | | |
|  | | | |
| <p>P</p> <p>MM</p> <p>Width : 2000 Track : 2000 Lock to Lock Time : 6.0 Steering Angle : 35.9</p> | | | |
| <p>02 Issued for Review: EA 2025-12-17</p> <p>REF. DESCRIPTION: 01- SITE</p> <p>STATICS</p> | | | |
| <p>CGH Transportation 6 Plaza Court Ottawa, ON K2G 3Z1 (343) 999-9117</p> | | | |
| <p>CLIENT: SOUL ALTA VISTA GP INC.</p> | | | |
| <p>ARCHITECT:</p> | | | |
| <p>SITE: 1867 ALTA VISTA</p> | | | |
| <p>TITLE: Turning Movements (4)</p> | | | |
| SCALE AT AS: | | DATE: | |
| NTS | | 2025-12-17 | |
| PROJECT NO. | | DRAWING NO.: | |
| 2025-050 | | 004 | |
| | | REV. NO.: | |
| | | 02 | |

Fire Truck Movements



ALTA VISTA DRIVE



Notes:
Key Plan:

12800

Aerial Fire

mm
Width : 2540
Track : 2540
Lock to Lock Time : 6.0
Steering Angle : 37.0

02 Issued for Review: EA 2025-12-17

REV. DESCRIPTION: 01. DATE: 2025-12-17

CGH Transportation

G CGH Transportation
6 Plaza Court
Ottawa, ON
K2G 3Z1
(343) 999-9117

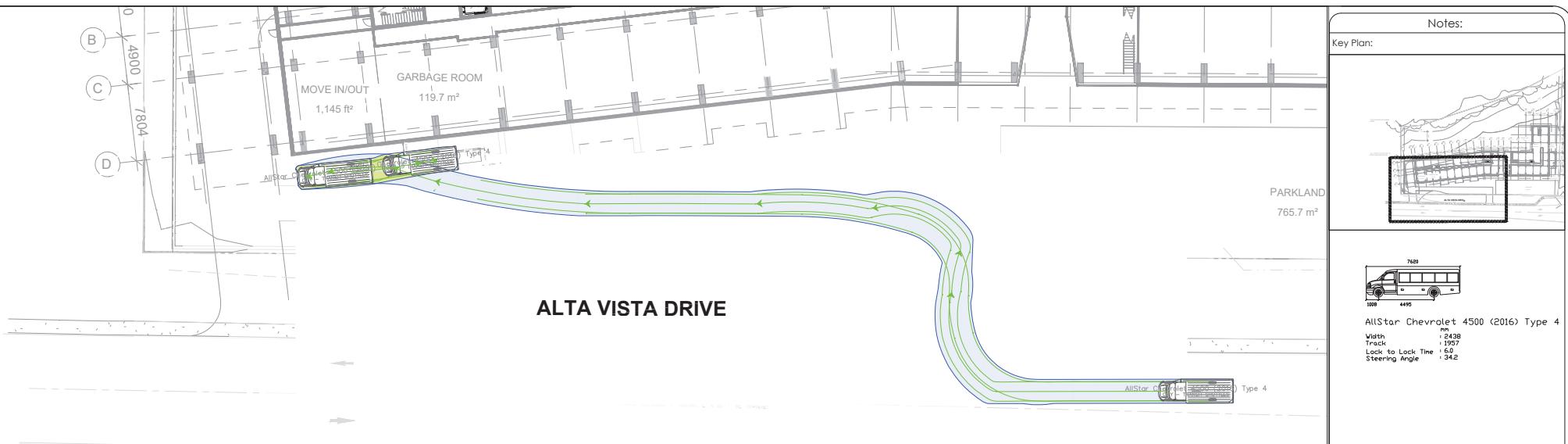
CLIENT: SOUL ALTA VISTA GP INC.

ARCHITECT:

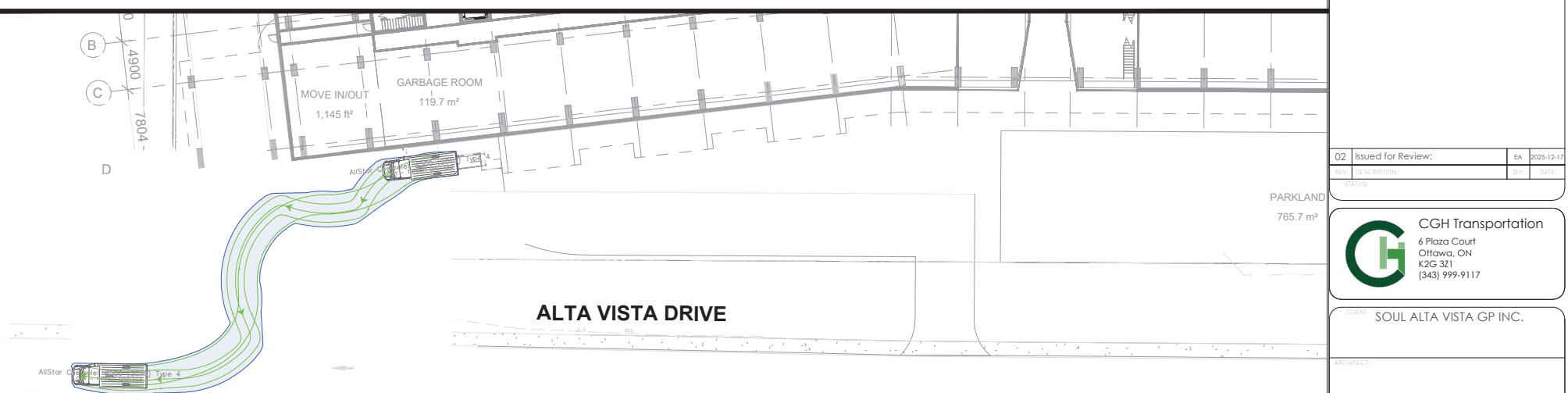
SITE: 1867 ALTA VISTA

TITLE: Turning Movements (5)

| | | | |
|--------------|-------------|----------|----------|
| SCALE AT A3: | DATE: | DRAFTER: | CHECKED: |
| NTS | 2025-12-17 | EA | JK |
| PROJECT NO. | DRAWING NO. | REV. NO. | |
| 2025-050 | 005 | 02 | |



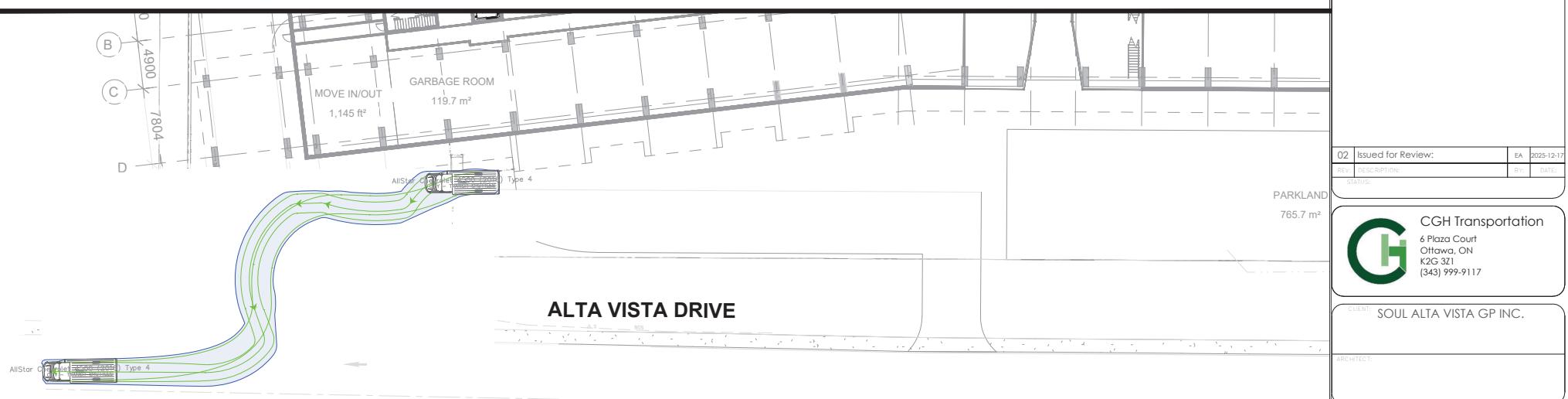
Para Transpo Inbound Movement - Rear Boarding



Para Transpo Outbound Movement - Rear Boarding



Para Transpo Inbound Movement - Side Boarding



Para Transpo Outbound Movement - Side Boarding

Appendix G

MMLOS Analysis

Multi-Modal Level of Service - Segments Form

Project: 1867 Alta Vista
Consultant: CGH Transportation
Date: Dec 16, 2025
Scenario: Ex/Fut

| Segment Name | | Alta Vista Drive | | | |
|---------------------------|--|--|--|--|--|
| OP Transect / Policy Area | | Within 600m of a rapid transit station | | | |
| Segment Component | | Majority (>50%) | | Critical | |
| Side of Street | | W or N | E or S | W or N | E or S |
| Pedestrian | PLOS Inputs | | | | |
| | Posted Speed (km/h) | 50 km/h | | 50 km/h | |
| | Two-Way ADT | 15,578 | | 15,578 | |
| | Pedestrian Facility | Sidewalk | Sidewalk | Sidewalk | Sidewalk |
| | Does the facility meet the TMP Sidewalk or MUP Policy? If not, for MUPs, does the location have a low volume of peak daily users AND are pedestrian volumes likely less than 20% of total users? | Yes | Yes | Yes | Yes |
| | Facility Width (m) | 1.80m | 1.80m | 1.80m | 1.80m |
| | Offset from Motor Vehicle | ≥ 3.0m | 1.5-2.99m | 1.5-2.99m | 1.5-2.99m |
| | Travel Lanes (m) | | | | |
| | Presence of Adjacent Parking? | No | - | - | - |
| | General Purpose Curb Lane ADT | | | | |
| | Max. Distance between Controlled Crossings (m) | > 400m | > 400m | > 400m | > 400m |
| | Score | 3.75 | 3.00 | 3.00 | 3.00 |
| | PLOS | B | C | C | C |
| | Target PLOS | A | | | |
| Bicycle | BLOS Inputs | | | | |
| | Cycling Route Classification | Cross-Town Bikeway | | | |
| | Cycling Facility | Painted or Physically Separated Bike Lanes | Painted or Physically Separated Bike Lanes | Painted or Physically Separated Bike Lanes | Painted or Physically Separated Bike Lanes |
| | Is the minimum level of separation provided according to OTM Book 18 Pre-Selection Nomograph - Rural Context (Figure 5.6)? (for paved shoulders) | - | - | - | - |
| | Facility Operation | Unidirectional | Unidirectional | Unidirectional | Unidirectional |
| | Pedestrian/Cyclist Volume | - | - | - | - |
| | Facility Width | 2.0-2.5m | 2.0-2.5m | 2.0-2.5m | 2.0-2.5m |
| | Boulevard/Buffer Width (excluding curb) | Advisory bike lane | Advisory bike lane | Advisory bike lane | Advisory bike lane |
| | Unsignalized Roadway Crossing Type (where cyclists are required to yield) | None | None | None | None |
| | Number of Travel Lanes at Crossing | - | - | - | - |
| | Crossing includes Median Refuge (≥ 2.7m) | - | - | - | - |
| | Cross-street Posted Speed (km/h) | - | - | - | - |
| | Cycling Path Blockages (e.g. bus stops and/or loading zones) | Rare | Rare | Frequent, Short Duration | Frequent, Short Duration |
| | Score | 2.88 | 2.88 | 2.58 | 2.58 |
| | BLOS | C | C | C | C |
| | Target BLOS | A | | | |
| Transit | TLOS Inputs | | | | |
| | Transit Facility | TP - Isolated Measures | | | |
| | Facility Type | Mixed Traffic | Mixed Traffic | | |
| | Expected Transit Running Time | Unimpeded | Unimpeded | | |
| | Transit Travel Speed (if available) | Enter Speed (if available) | Enter Speed (if available) | | |
| PRLOS | TLOS | B | B | | |
| | Target TLOS | C | | | |
| | PRLOS Inputs | | | | |
| Public Realm | Context | Other Streets | Other Streets | | |
| | Inner Boulevard Width | 2.0-3.99m | ≤ 0.6m | | |
| | Middle Boulevard Width | ≤ 0.5m | ≤ 0.5m | | |
| | Outer Boulevard (Frontage) Width | ≥ 3.0m | ≥ 3.0m | | |
| | Transit Route on Segment? | Yes | Yes | | |
| | Bus Stop Elements | Curbside landing zone with shelter behind sidewalk | Curbside landing zone with shelter behind sidewalk | | |
| | Number of Midblock Traffic Lanes (both travel directions) | ≤ 2 | | | |
| | Score | 21.00 | 21.00 | | |
| | PRLOS | B | B | | |
| | PRLOS | B | | | |